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EARTH CONSCIOUS





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The Tuaregs of Mali are called the blue people of the desert for the indigo-dyed clothing they wear on special occasions when the dye rubs off on their skin.

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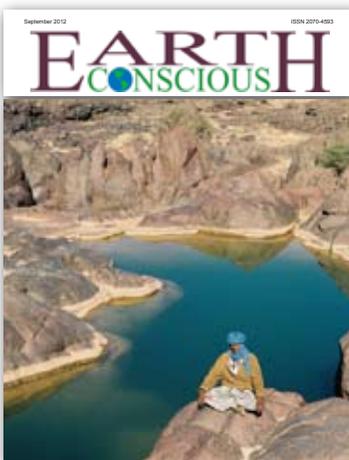
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On our Cover

The delta in the Adrar des Iforas, Mali. A guelta is a peculiar type of wetland, typical of desert regions. They are formed when underground water in lowland depressions spills to the surface and creates permanent pools and reservoirs.

Photo: Guy Lankester

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Will Doha Deliver?

All eyes are set on Doha, the next step in the climate change deliberations but the big question is whether developed nations will make the tough political decision and sign up for a second commitment period when the first commitment period of Kyoto Protocol which expires in 2012.

Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC) has said repeatedly that high-level political engagement is needed on the question of the Kyoto Protocol which commits developed countries to slash their emissions.

But with a lot of back-peddling and various excuses at different climate change conferences from Copenhagen, Cancun and Durban to agree on a global framework to reduce emissions, more pressure will be brought to bear on Doha to produce an outcome that will be acceptable to both developing and developed countries.

Ms. Figueres again displays a sense of optimism that Doha could be the conference that will see some commitment. Referring to the informal climate talks which ended earlier this month in Bangkok, she said the meeting set a firmer base for decisions to be made at the upcoming UN Climate Change Conference which will take place in late November, early December.

But Least Developed Countries and the Alliance of Small Island States are concerned that "the environmental integrity of the Kyoto Protocol is eroding before their eyes" and will require action in Doha that prioritizes reducing emissions that is in line with the latest scientific recommendations.



A bit of good news is that the Board of the Green Climate Fund (GCF) has held its first meeting after successfully filling all 24 Board seats. The Board will now address several key issues including initiating work towards the operationalization of the Fund and the process it will follow to select the host country of the Fund.

The Fund was established at Durban with the purpose of making a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change.

Linda Hutchinson-Jafar
Editor



SECOND TRINIDAD AND TOBAGO YOUTH FORUM ON CLIMATE CHANGE

The second Youth Forum on Climate Change in Trinidad and Tobago themed 'Empowering Our Youth for a Sustainable Society' was held on Saturday, August 04, 2012 at the Ballroom, Crowne Plaza, Port of Spain.

It was organised and hosted by the five-year old Earth Conscious magazine, a digital and web-based publication produced by Caribbean PR Agency.

The Forum seeks to empower its participants and by extension, all youth in Trinidad and Tobago, to take action – tangible, concrete steps to create a culture of development that is sustainable and that can enhance the lives of everyone in our society.

Such development must happen at all levels, but the responsibility to make it happen belongs to each of us individually, and all action, therefore, must be initiated at the personal level.

With this in mind, the Forum supports these three key objectives:

- To build awareness among youth on issues of the environment and climate change;
- To foster a generation of leadership in sustainable development and climate change adaptation; and
- To encourage environmental action.

**EMPOWERING
OUR YOUTH
for a
SUSTAINABLE
SOCIETY**

Change is required at all levels to adopt more efficient use of resources and support the development of environmentally sustainable practices. However, a major challenge facing Trinidad and Tobago and societies worldwide is promoting pro-environmental behaviour.

One of the ways to encourage societal change is through young people who have been exposed to an understanding of environmental knowledge and can contribute to and influence sustainable lifestyles around them.

The 2012 Forum encourages young people to be the agents of change in our twin-island Republic, in the Caribbean and in the world. Youth have the most invested in the future of a healthy and sustainable earth.

Thousands of young people globally are already engaged in climate change and environmental degradation issues, recognising that if they are not part of the solution, they will inherit an earth ravaged by the effects of climate change which has become a defining and most challenging sustainable development issue of the 21st century.

Acknowledging their responsibility as stakeholders of this earth, youth groups throughout regions of the world are adding their voices to climate change policy and to environmental issues.

Their voices are becoming louder and leaders worldwide are sitting up and taking notice.



Young women - making valuable contributions at the Youth Forum



The opening session, chaired by Mr. Garfield King was addressed by Ms. Ramona Ramdial, Minister of State in the Ministry of Environment and Water Resources and Editor, Earth Conscious magazine, Mrs. Linda Hutchinson-Jafar. Mr. Shahad Ali, Youth Environmental Educator delivered the Vote of Thanks. Mr. Joshua Boodram from the band Project Override performed an energetic 'Take the Wheel' – a song the band composed specifically for the Youth Forum.

The morning session included two lively presentations by Dr. Charmaine Gomes, Coordinator, Sustainable Development Unit at the ECLAC Subregional Headquarters for the Caribbean who spoke on 'Climate Change in the Caribbean: what can we do?' and by Mr. Kyle De Lima, Activist, Trini Eco-Warriors who engaged the youth delegates on the theme of his topic, 'Raising our Voices - Empowering Youth for Action'.

The afternoon session on 'Why should Youth get involved? Can Youth make a difference?' was addressed by Mr. Steven Greenleaf, President of the Caribbean Institute of Sustainability.

Youth delegates also sat on two panels to engage in serious debate. 'How can young people work towards sustainable practice in their everyday lives?' was moderated by Ms. Amanda Laurence, National Information Officer, United Nations Information Centre, Port of Spain. 'Youth reaching out to Youth: How can youth contribute to a public outreach strategy to encourage sustainability?' was moderated by Ms. Golda Lee-Bruce, Journalist and Television Presenter.

The final plenary, On the Green Carpet to discuss 'Sustainable Society: what is my responsibility?' was moderated by Mr. Tony Fraser, Journalist, who engaged youth delegates in lively discussion and challenged them to go beyond ideas into action.



Garfield King, Chair (left) and Ms. Ramona Ramdial, Junior Minister, Ministry of the Environment and Water Resources (right)



Mr. Steven Greenleaf (left) and Dr. Charmaine Gomes (right)



Mr. Tony Fraser guiding discussions on responsibilities in a sustainable society

BRINGING YOUTHFUL CHANGE TO CLIMATE CHANGE STRATEGIES

By Wesley Gibbings



A mixture of youthful idealism and enthusiasm was balanced at the forum against critical reality-checks provided by young scholars and activists from a variety of professional disciplines.

There are hopes the next generation of environmental managers will operate in a far more business-like manner on the question of climate change impacts than the current planners and developers. Such signals came loud and clear at the 2nd Trinidad and Tobago Youth Forum on Climate Change hosted by journalist Linda Hutchinson-Jafar's Earth Conscious magazine in Port of Spain on August 4.

"Climate Change is the most challenging sustainable development issue of the twenty-first century - particularly for us in the Caribbean," Hutchinson-Jafar said. "Thousands of young people globally are already engaged in addressing environmental degradation issues."

A mixture of youthful idealism and enthusiasm was balanced at the forum against critical reality-checks provided by young scholars and activists from a variety of professional disciplines as this year's edition focused on Empowering our Youth for a Sustainable Society.

Bringing early buzz to the proceedings was junior Environment and Water Resources Minister, Ramona Ramdial, described by MC Garfield King as having herself come from a background of environmental study and activism.

In one portion of her address to the young participants she praised young people for being concerned about the recent Grand Riviere turtle issue but concluded that the infamously botched river mouth diversion had been "sensationalised" in the public domain.

Several subsequent commentators suggested that threats to the natural environment were already, by definition, sensational issues of great public interest.

Following presentations by Charmaine Gomes of the Economic Commission for Latin America and the Caribbean and Kyle De Lima of Trini Eco-Warriors, it was the turn of the young scholars and activists to state their cases.

Ryan Jobson, a Yale University doctoral anthropology student of Jamaican/Barbadian/US ancestry, insisted that greater attention be paid to the impact of the energy sector on the environment. In an interview with Trinidad Guardian, he argued that the most viable approach was the building of a Caribbean-wide coping mechanism.

"The best opportunity to combat climate change lies in regional integration," he said. Jobson suggested this can be achieved through "pairing innovative renewable energy projects such as geothermal plants in Dominica with traditional fossil fuel energy sources, such as those produced here in Trinidad."

"This is to say that carbon emissions cannot simply be erased overnight, but require concerted efforts to steadily reduce dependency through regional cooperation and a collective energy programme," he said.



Mrs. Linda Hutchinson-Jafar, Editor, *Earth Conscious* magazine

"Projects such as the Caribbean Renewable Energy Development Programme (CREDP) are a step in this direction and represent the beginnings of a promising agenda to quell the effects of climate change."

The CREDP is a project financed by the German government administered by the Caribbean Community (Caricom) promoting the use of renewable energy resources and energy efficient processes in the region.

"Caribbean countries remain at the forefront of a number of initiatives committed to renewable energy, including plans to develop a geothermal energy plant in Dominica and a recent project in Guyana produces electric energy from household garbage," Jobson said.

"Yet, the Caribbean remains highly dependent on fossil fuels, which remain a necessary but ultimately limited and destructive resource."

The view was shared by environmental management graduate, Trishana Sirju, who said the region's development agenda should revolve more fully around climate change adaptation measures.

"Our agriculture, energy, development and growth policies should all centre around how we plan to deal with climate change in the Caribbean," Sirju told Trinidad Guardian.

“Climate change impacts will affect many aspects of people’s lives, such as access to water, food, jobs, settlements and cultures not only in Trinidad but all over the world,” the young activist said. “I strongly believe it is an urgent issue now because both governments and citizens have refused to make the hard decisions in the past in order to curb climate change as well as its impacts.”

Jobson meanwhile argued that young people bring a high level of creativity to the search for solutions. “The greatest asset of our young people is their creativity,” he said. “It’s easy to succumb to the usual order of things, the logic of economic development that neglects environmental concerns altogether.”

“Young people, I believe, are equipped to create alternatives to our customary practices, in sectors such as public transit, waste management, and renewable energy,” Jobson argued.



... a mixture of youthful idealism and enthusiasm ...



Youth panellists

"Of course, there are ways to decrease our individual carbon footprint by being more responsible in the ways we expend energy at home and in our daily lives, but true solutions lie in the restructuring of those lives to identify more sustainable alternatives to current practices."

"Young people," he said, "can begin by working within their local communities to propose such alternatives, which if successful, provide models for others to adopt and follow elsewhere."

Sirju added: "Youth voices must... be raised across the country educating and engaging their communities. Informed citizens can make better decisions and I strongly believe that a movement shouting for action, will be heard by the government."

The Youth Forum attracted scores of teens and young adults from across the country with financial support almost entirely from energy-sector companies. Resource persons tapped for the occasion included President of the Caribbean Institute of Sustainability, Steven Greenleaf and journalists Golda Lee-Bruce and Tony Fraser who served as session moderators.

Next year, as was the case in year one, the state, as promised by Ramdial, will pitch in – some hope not only with cash, but with listening ears.

(This article was reproduced from the Trinidad Guardian newspaper where it first appeared.)



Joshua Boodram from the band Project Override performed an energetic "Take the Wheel".

Bangkok climate talks make concrete progress on key issues ahead of Doha

A week of informal climate talks in Bangkok ended on September 04 with concrete progress on key issues across all three negotiating groups, setting a firmer base for decisions that will be made at the UN Climate Change Conference this year, in Doha.

"The investment in Bangkok has paid off. Government negotiators have pushed forward key issues further than many had expected and raised the prospects for a next successful step in Doha," said Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC).

"There are still some tough political decisions ahead, but we now have a positive momentum and a greater sense of convergence that will stimulate higher-level political discussions ahead of Doha and set a faster pace of work once this year's conference begins," she said.

At the 2011 UNFCCC conference, in Durban, South Africa, nations set specific objectives for their 2012 meeting in Doha, Qatar (26 November to 7 December). These include essential work to trigger a new phase of greater climate action and to take the next concrete steps to fill existing gaps in the international policy response to climate change. Progress in Bangkok in each of the three negotiating groups addressed these objectives.

Under the Kyoto Protocol (Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol – AWG-KP), the objective is to amend the existing Kyoto treaty under which industrialised countries commit to emissions cuts, so that it continues into a second commitment period next year and its important international infrastructure and accounting rules are preserved.



Christiana Figueres - Executive Secretary UNFCCC, and Noeleen Heyzer - ES of Economic and Social Commission for Asia and the Pacific (ESCAP).

In Bangkok, this working group under their Chair, Ms. Madeleine Diouf:

- produced an unofficial paper outlining the elements of a final decision as they might appear under these amendments, which involves the construction of a fine and detailed set of legal checks and balances,
- drilled down into the detail of what needs to be done to resolve differences of opinion over the length of the second commitment period and reach compromise.

Parties under the AWG-KP also called for the Chair to produce a negotiating text in time before the Doha session, to allow for further work in national capitals before coming to Doha.

The group that negotiates under the full UN Climate Change Convention (The Ad hoc Working Group on Long-term Cooperative Action – AWG-LCA) has an objective to close its work in Doha.



Protesters continue to rally for climate justice outside UN ESCAP headquarters

This work began in 2007 and has resulted in a set of international agreements that aim to limit the average global temperature rise to below 2 degrees Celsius (beyond which climate change becomes increasingly dangerous), to reduce greenhouse gas emissions sufficiently to achieve this and to establish an adequate support system to provide developing countries with finance and technology to build their own sustainable, clean energy futures.

In Bangkok, there was significant progress in a number of areas, including:

- plans for a new market-based and other possible mechanism, meant to boost international cooperation on climate action,
- the shape of the agreed international scientific Review from 2013, which is to be a reality check on the advance of the climate change threat,
- also finance on REDD-plus, which is the international cooperative programme to preserve and enhance the world's forests.

The group identified points where they might need additional decisions in Doha in order to close successfully. This includes finance to support developing countries efforts to deal with climate change.

The results of the group's work have been captured in an informal overview prepared by the AWG-LCA Chair, Mr. Aysar Tayeb. This is intended to help clarity and further convergence.

The third group is the new negotiating body (Ad hoc Working Group on the Durban Platform for Enhanced Action – AWG-ADP), which was agreed in Durban and is tasked to take the next steps necessary to negotiate a global climate change agreement to be adopted by 2015 and enter into force from 2020, and how to raise current inadequate global ambition to deal with climate change, including cutting greenhouse gas emissions even faster.

In Bangkok, governments began to outline their vision for this new universal agreement and to identify concrete actions to bridge the ambition gap. This included preliminary discussions on:

- the design of the new agreement to be adopted by 2015, how they envisage its broad contours and architectural features under the principles of the Convention, and how to deal with differing national circumstances in shaping an effective, fair, ambitious agreement,
- identifying further concrete actions to raise ambition before 2020 to stay on track to hold below the 2 degrees maximum temperature rise.

"Discussions in the ADP at the Bangkok climate talks have succeeded in building confidence among governments on the new process, providing a strong basis for further work in subsequent years, "the group's Co-Chairs, Mr. Jayant Moreshver Mauskar and Mr . Harald Dovland, said.

All photos by IISD Reporting Services

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Joint Statement on Kyoto Protocol by LDC Group and AOSIS

Statement by The Gambia on behalf of the Least Developed Countries and the Alliance of Small Island States

AWG-KP Informal Closing Plenary, UN Climate Change Talks,
Bangkok, 5 September 2012

I have the honour to speak on behalf of the Least Developed Countries and, for the first time, the Alliance of Small Island States. Our two groups associate themselves with the statement delivered by Swaziland on behalf of the African Group. Together, the LDCs, AOSIS and the African Group represent one hundred countries and over a billion people who are most vulnerable to the impacts of climate change.

We are concerned that the environmental integrity of the Kyoto Protocol, which is the only international treaty that legally binds developed countries to lower emissions, and thus our lone assurance that action will be taken, is eroding before our eyes.

This will require action in Doha that prioritizes reducing emissions that is in line with the latest scientific recommendations, including the following:

Annex I Parties – including those that have not yet submitted Quantified Emission Limitation Reduction Objectives (QELROs) – must raise the ambition of their economy-wide emission reduction commitments and submit legally binding, single number QELROS without conditions for inclusion in an amended Annex B of the Kyoto Protocol.

The second commitment period should be for a length of five-years to avoid locking in insufficient ambition.

The use of surplus units from the first commitment period must be dramatically curbed in the second commitment period to protect the environmental integrity of the second commitment period.

Parties must reaffirm that legally binding QELROS inscribed in Annex B for the second commitment period are required for all Annex I Parties wishing to participate in the mechanisms.

Parties must affirm that the compliance system of the Kyoto Protocol applies to the second commitment period.

All amendments to the Kyoto Protocol should be provisionally applied pending entry into force to ensure the rapid implementation of Annex I commitments, the continued emission reporting under the accounting rules, and the uninterrupted operation of the flexible mechanisms.

Finally, Annex 1 countries that are not parties to the Kyoto Protocol should take ambitious commitments under the LCA. If hard decisions to cut emissions are not made now, developing countries will be forced to confront issues of adaptation on a previously unimaginable scale.

The Board of the Green Climate Fund holds first meeting

The Board of the Green Climate Fund (GCF) held its first meeting in late August after successfully filling all 24 Board seats. It addressed several key issues including initiating work towards the operationalization of the Fund and the process it will follow to select the host country of the Fund.

The Board elected Mr. Zaheer Fakir of South Africa and Mr. Ewen McDonald of Australia as its Co-Chairs for one year. Mr. Fakir is Head, International Relations and Governance of the Department of Environmental Affairs of South Africa. Mr. McDonald is Deputy Director General of the Australian Agency for International Development (AusAID).

Both Mr. Fakir and Mr. McDonald have many years of experience in development and climate change-related issues.

The Board governs and supervises the Fund, taking full responsibility for funding decisions.

Six countries made offers to become the host of the Fund – Germany, Mexico, Namibia, Poland, Republic of Korea and Switzerland.



Members of the Board - Green Climate Fund
Photo: gcfund.net

About the Green Climate Fund

The Green Climate Fund was established in December 2011 at Durban, South Africa, by the Conference of the Parties to the UNFCCC with the purpose of making a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change.

In the context of sustainable development, the Fund will promote the paradigm shift towards low-emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change.

The Fund will provide simplified and improved access to climate change funding to developing countries, including direct access, basing its activities on a country driven approach.

The Green Climate Fund is governed and supervised by a 24-member Board and was designated as an operating entity of the financial mechanism of the UNFCCC. The COP requested the UNFCCC secretariat jointly with the secretariat of the Global Environment Facility to set up the Interim Secretariat for the Fund.

Together we preserve | Together we enjoy



As **caretakers** of our country ... and of our destiny ... we have a duty to
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let us take **responsible** care of our environment,
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Bandwagonists, Education, Environment



By Shahad Ali



There is hardly any argument with the statement that the natural environment of Trinidad and Tobago is unique. Whether we have heard about the Ocelot, the Golden Tree Frog or the West Indian Manatee, the natural environment of our country is home to many rare species. Our treatment of the environment in recent months has been questionable. Education is crucial to changing our approaches to these decisions, our individual responsibility and our bandwagonist attitude.

Let's take a closer look at the deforestation that occurred recently in proximity to the Asa Wright Nature Center in the country's eastern region. It may be an issue that citizens of this southern Caribbean country may have easily forgotten. Nearby quarries have always been questioned when it came to their individual operations, however things became heated when operations began encroaching upon the area where the nature centre, famous for its bird watching, exists. This caused an intense retaliation not only from the local public but also international interests.

All eyes were on us. The operations were stopped, and because of this incident, the legal jurisdiction of quarries was returned to the Environmental Management Authority.

Still hot on our minds is the incident that occurred at the Grande Riviere beach, further in the eastern region in July of this year. The river that flowed into the ocean had naturally diverted and became parallel with the shoreline. This movement caused water to inundate the sand destroying the nests of many sea turtles.

While there were conflicting reports of 'hundreds' to 'thousands' of sea turtles perishing because of works conducted by the respective authorities, the work had to be done none-the-less. Leaving the river to continue along its course may have caused more harm than good.

The majority of Trinidadians and Tobagonians without a doubt own up to a bandwagonist attitude when it comes to the issues of the environment. I say this with good reason.

The majority of Trinibagonians including myself has no idea about the current state of the hillside in the vicinity of the Asa Wright Nature Centre. Was it set for reforestation? Likewise with the Grande Riviere issue. What became of it? Who was prosecuted?

From what I have heard, from my personal sources, the river has naturally diverted back to its original state. It is clear though, that the river meanders the shoreline regularly. Management and planning for the next occurrence of the river's movement is necessary so as to ensure proper communication and responsible reactions to such sensitive issues. The local media and activists made the entire world frown upon our twin island state.

What's most upsetting about these situations is that many individuals do not take proper responsibility with their actions against the environment. During the Grande Riviere issue almost every Trinibagonian transformed into an expert on sea turtles. Everyone had something to say. These may very well be the same individuals who pollute the beaches and harass sea turtles while nesting.

I am adopting the premise that if you were not able to name the five species of sea turtles that visit the shores of Trinidad and Tobago, you should not have anything to say about the issue. The five species by the way are the Hawksbill, Greens, Leatherback, Olive Riddley and Loggerhead. It makes no sense speaking about something that you have absolutely no idea about. Educating yourself on the environment is essential.

Dr. Scott Eckhert of the Wider Caribbean Sea Turtle Conservation Network stated that he did not believe that sea turtles had a carrying capacity* until he came to Grand Riviere beach. He stated that there are too

many nesting turtles on the site and as a matter of fact, it is not uncommon for a sea turtle to dig up the nest of another. There simply is not enough sandy area for the several sea turtles to nest. .

Dr. Scott Eckhert also provided solutions to increasing the population of sea turtles, particularly leather back turtles in Trinidad. The population of sea turtles has currently plateaued and shows no sign of increasing. From expanding the beach at Grande Riviere to decreasing the length of trawling nets and even designating hot spots for turtle activities in marine areas were some of the feasible ideas that Dr. Scott Eckhert presented.

We need to take individual responsibility of what is ours. I have never patrolled the beaches at Grande Riviere. For that I am truly sorry. Everyone wants to protect the turtles, but what are you doing to protect them? The fisheries act was recently amended to absolutely protect all sea turtles and all sea turtles worldwide are considered critically endangered.

If you see someone harming turtles, do you turn a blind eye or do you react to what you see? Everyone needs to take a stand for what is right. If something like this occurs, what can you do to fix it? How do I ensure a mistake like this in my country never happens again? Take it upon yourself to educate yourself on issues. Move away from the bandwagonist attitude and do what is truly best for the environment of Trinidad and Tobago.

****Carrying Capacity: the maximum, equilibrium number of organisms of a particular species that can be supported indefinitely in a given environment***

Island Cycle - aiming to make recycling part of the future

By Garfield King

A sustainable recycling structure for Jamaica and the wider Caribbean. That's the goal of two young people in Jamaica who have focused their drive and passion for entrepreneurship on the growing concerns about the environment. Together they established Island Cycle in early 2011.



The aim of the company is to significantly reduce the volume of hazardous waste in the region, change society's attitude towards recycling and encourage people, especially children, to be more environmentally friendly.

Leanne Talbot and Xavier Bedasee are both in their mid-twenties and have known each other since school days. Their love of the environment and the natural beauty of Jamaica inspired them to invest their talents and energy in Island Cycle.

In 2011, Leanne was selected to represent Island Cycle as one of the first set of entrepreneurs at the newly-established Branson Centre of Entrepreneurship. From approximately 2,500 applications, Island Cycle was chosen along with 12 others to receive support such as business training mentorship and access to a network of successful entrepreneurs in the Caribbean.

Xavier was groomed in a business environment as his father and several family members owned businesses. He worked his way up from the ground level and was able to develop some business sense.

How did they come up with the name? Xavier explained that many parts of the world have already made steps in going green and they did not want the Caribbean to be last. With this in mind, they structured the company to fit the Caribbean region and its people.

The Caribbean consists mainly of "islands" and "cycle" refers to the cycle of waste. The cycle being: consumer used products -> waste thrown away and recycled -> making new consumer products from the recycled waste. There is also the recognition of life as a cycle.



Leanne and Xavier

There are other recycling companies in Jamaica, so what makes Island Cycle different? Leanne says they are taking a cultural-shift approach. "One thing we realised we would have to focus heavily on is educating people on the importance of taking care of the environment.



Leanne with school children at launch of recycling project in Port Maria

For Jamaica it's very important because we rely very heavily on tourism. If a tourist comes to Jamaica and they see it's dirty or there are health hazards due to lack of proper care for the environment, once that hits the papers, our tourism industry would be hit gravely."

Leanne and Xavier recognise the value of having a personal presence. Both partners go to all the public awareness programmes they organise and interact directly with attendees. The main focus right now is schools. Xavier explains that making the issue concrete is vital. During presentations he holds up plastic bottles and asks, "Do you know that if properly recycled, these bottles can be broken down into material to form polyester to make your Physical Education uniforms?" He believes this approach gets through to the children. When they see their parents throwing away plastic bottles they can tell Mummy and Daddy to recycle the bottles as they can end up as PE uniforms.

The young entrepreneurs hope to make recycling easier for the average person by providing a gate collecting service in residential and commercial areas. They plan a series of methods for collecting recyclable materials from households, schools, offices, hotels, gated communities, gullies, beaches

and other public recreational areas. Once the recyclables have been collected they will be shredded, compressed and shipped to manufacturers overseas who will recycle them to make new products.

Though they intend to recycle a wide range of materials in the future, in the early stages Island Cycle will be focusing on plastic. Leanne says the long term goal is to manufacture products from the recycled material in Jamaica and export those products, thus saving money and creating jobs in the country. Xavier admits it has been a challenge securing funding as most people do not yet see recycling as an important issue. But he notes there are a couple of potential investors who have shown interest.

The entrepreneurs believe one of the main environmental concerns in Jamaica is the way people dispose of their garbage. "It's contaminating our seas and that spans everything from killing our fish; killing our coral reefs and destroying our beaches. It affects the drinking water. It also affects the air because what a lot of people do in Jamaica is burn their waste," Leanne explained, adding that the toxic emissions released into the atmosphere have a negative impact on the air quality, especially in Kingston.



Looking ahead five years, Leanne and Xavier would like to see Island Cycle as the main recycling company in Jamaica, processing recycled material into products for export, setting up branches across the country and spreading operations into other Caribbean islands.

According to the Island Cycle FaceBook page: www.facebook.com/groups/149781391757937/ the company hopes to foster a higher level of ecological awareness, reduce our carbon footprint and have recycling become entrenched in the day-to-day fabric of society. It also aims to raise environmental awareness by educating the public so that recycling is entrenched in day to day activities and becomes part of the culture. Xavier believes recycling could be a good way of creating jobs and generating revenue for Jamaica, or as he terms it "Cash in on trash."

These young entrepreneurs aim to contribute to Jamaica's economic stability by exporting a product made in Jamaica, and to complete the third stage of the waste cycle (creating new consumer products) in the Caribbean.

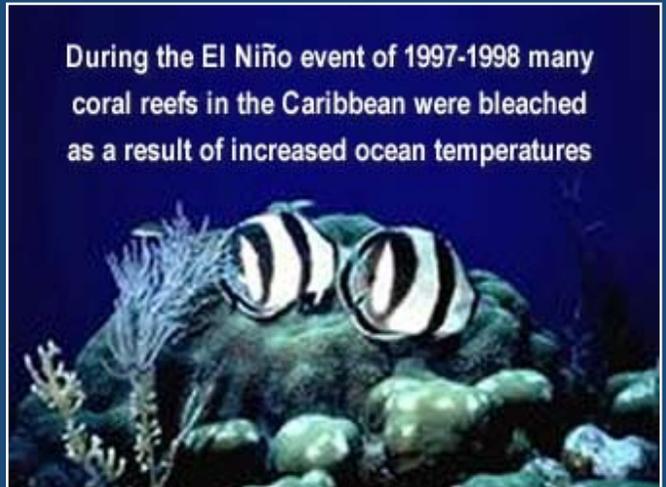
Garfield King is an independent radio producer, presenter and writer with almost 30 years broadcast experience. As a trainer, he conducts workshops on public speaking, presentation skills and communication dynamics. inkings@tstt.net.tt

Did YOU Know?

Vulnerability to climate change can be reduced by adapting to it's potential impacts



During the El Niño event of 1997-1998 many coral reefs in the Caribbean were bleached as a result of increased ocean temperatures



Global warming will likely result in sea level rise, increased sea surface temperature and changes in atmospheric temperature



Where there's POTENTIAL...
there is Energy

The Entrepreneurial Spirit Energises Us

Through the Mayaro Initiative for Private Enterprise Development (MIPED), bpTT is energising and supporting innovative small business ideas in a big way.

After an initial TT\$7.2 million investment in 2002, MIPED disbursed over 1,300 loans, established more than 800 small businesses and the loan fund became self-sustaining after just 5 years.

Lending support to our young persons through Junior Achievement and providing management and project training for NGOs and community based organisations are just some other ways we contribute to a more sustainable Trinidad and Tobago.

Where there are ways to bring ideas to life, there's energy.



Check us out on Facebook - **bpTT Community Energy**



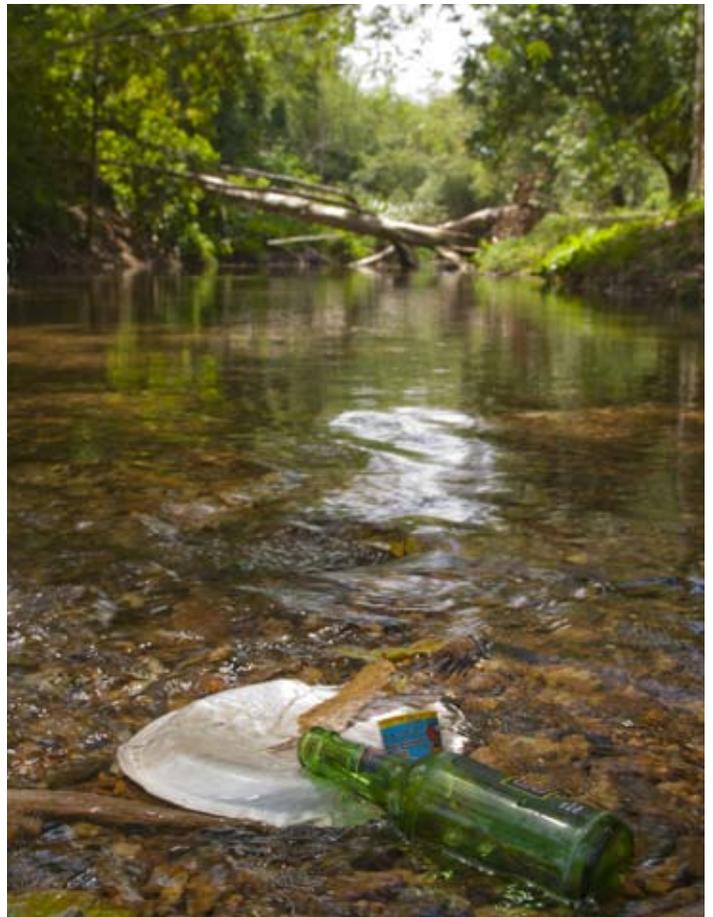
ENVIRONMENTAL PHOTOGRAPHY

Trinidadian Shaun Rambaran has been earning a living with his art over the last eight years.

Foregoing a budding career in illustration, he began making images on 35mm film in 2004, and has been obsessed with photography ever since. Fond of nature, Shaun contributes his spare time to environmental projects including turtle-tagging and beach clean-up.

Through his photography, he has also become more aware of environmental pollution, many of them contributed by people who litter indiscriminately instead of properly disposing their garbage.

These are some of his images taken around Trinidad.





World's Most Successful Environmental Treaty Turns 25

Montreal Protocol saves ozone layer while reducing major climate threat

The world's most successful environmental treaty turned 25 on September 16th. The treaty is the Montreal Protocol and its success has avoided one of the most severe global environmental threats the world has ever faced—the destruction of the stratospheric ozone by chlorofluorocarbons (CFCs).

"The Montreal Protocol has phased out nearly 100 kinds of CFCs and related fluorinated gases by 98%, an astonishing record by any measure," stated Durwood Zaelke, President of the Institute for Governance and Sustainable Development. "The treaty's success has put the ozone layer on the path to recovery by 2065 or later, and has avoided millions of deaths from skin cancer and trillions of dollars in health costs."

At the same time, because the CFCs and other chemicals that destroy the ozone layer also cause global warming, the Montreal Protocol has provided nearly 20 times more in climate mitigation than the Kyoto Protocol climate treaty has done in its first commitment period.

"Including the earlier consumer boycotts of CFC-filled spray cans and the early national laws in the US and Europe to cut these chemicals, the combined efforts to address CFCs and related chemicals has solved a part of the climate problem that otherwise would be as big as the part caused by carbon dioxide today. (Carbon dioxide causes more than half of the warming.) Put another way, the global temperature above pre-Industrial average would be 50% again as high as it is today."

Family Values



By Barbara King

Where do athletic and artistic abilities come from? With phrases like “gifted musician”, “natural athlete” and “innate intelligence,” it has long been the belief that talent is a genetic thing some of us have and others don’t.



personalities, our intelligence, our abilities - are actually determined by the lives we lead. The very notion of “innate” no longer holds together.

Author David Shenk in a BBC website article says: It turns out that everything we are is a developmental process - including what we get from our genes. A century ago, geneticists saw genes as robot actors, always uttering the same lines in exactly the same way. They now know that genes interact with their surroundings, getting turned on and off all the time. The same genes have different effects depending on who they are talking to. This means that everything about us - our

Bruce Lipton, a stem-cell biologist who taught at the University of Wisconsin’s School of Medicine and conducted pioneering research at Stanford University, is the author of the books *The Biology of Belief* and *Spontaneous Evolution*. His experiments showed that environments and circumstances NOT genetic makeup dictate how cells behave. He asserts that genes don’t control our lives; our environment does, and more importantly, our perception of that environment. Lipton took genetically identical stem cells and put them into separate Petri dishes and then changed the environment.

According to a recent *Ode Magazine* article, "He saw cell cultures crashing in bad environments and then instantaneously recovering their health when they were moved back to good and supportive environments." The environments influenced the direction of development. Lipton says different information led genes to evolve in different ways. So genes don't control life, they respond to information.

"In each case the individual animal starts its life with the capacity to develop in a number of distinctly different ways," says Patrick Bateson, a biologist at Cambridge University. "Like a jukebox, the individual has the potential to play a number of different developmental tunes. The particular developmental tune it does play is selected by [the environment] in which the individual is growing up.

So, what are the implications of these findings to parenting, education and community development? It seems that scientists are now providing evidence for what the wise among us have known for ages: If you want a child to grow up to be a healthy, responsible, productive citizen, you have to provide an environment (read that as parents, family, school, friends, community) that demonstrates and nurtures health, responsibility and productivity.

There are parents who refuse to struggle to raise children in what is perceived as crime-ridden, toxic communities. They move away or, if that is not practicable, they send their children to live with relatives in safer, more peaceful environments. Those who can afford it send their children to schools that have a small student population, attractive surroundings and the equipment and staff that can cultivate their offspring's latent talents and skills.

There are people who are dissatisfied with the social environment of Trinidad and Tobago – the crime, what they see as a general lawlessness and limited opportunities to make the kind of life they want for themselves. Some have found the means to leave the country and travel to greener and healthier pastures.

But what of those who don't have the money or the family-and-friends support systems? And of those who don't want to "run away"? How do we change a national environment that is so toxic that it is causing such deviations in the development of our people?

Lipton argues that a revolution will occur when we recognize that each human being is a "cell" in the same body. "We may learn that killing or terrorizing each other or our environment is self-destructive. In fact, there is a name for what we do. When the cells in our bodies fight each other, we call that 'autoimmune disease'. What humanity is going through right now is a very bad case of autoimmune disease."

Sources:

bbc website: 13 January 2011. Is there a genius in all of us? David Shenk.

Ode Magazine May/June 2012, The Honeymoon Effect, Jurriaan Kamp

***Barbara King is a Parent Educator
with ParentingTT***

Monodominant Forests

by
Jo-Anne Nina Sewlal



The tropics contain some of the most species rich forests in the world therefore the presence of monodominance of a plant species in the tropics has been a long standing biological conundrum. This article looks at monodominant tropical forests, and the factors that influence their existence and distribution including Mora forests which are found in Trinidad.

Forests are considered monodominant when $\geq 60\%$ of the tree canopy is dominated by a single species, compared to mixed species forests where dominance of a single species seldom exceeds 10%. At least 22 species contained in eight different families form classical monodominant forests, are found in the three tropical regions; Asia, Africa and South and Central Americas.

Members of the plant family Leguminosae in particular the sub-family Caesalpinioideae usually form monodominant forests in the Americas and Africa, while those in the family Dipterocarpaceae show dominance in Asia. Examples of monodominant forests include *Prloria copaifera* comprising swamp forests in Panama and *Mora excelsa* found along rivers in Guyana and in Trinidad.

The existence of monodominant forests can be viewed from an ecological or an evolutionary stand point. From an ecological point of view, monodominant forests can occur via three mechanisms; a lack of disturbance, shade tolerance of seedlings and a slow rate of decomposition of the leaf litter resulting in low nutrient availability.



Fallen Mora tree

While five mechanisms explain monodominance from an evolutionary standpoint and include the production of large seeds to survive in the deep leaf litter, masting or over-production of seeds in order to satiate seed predators and still have enough present to germinate and continue the species.

The parent plant also has to disperse its seeds in a small radius around itself in order to produce thick stands of seedlings which serve to prevent the survival of seedlings of other species and hinder herbivores.



The Mora.

Photos:
Nigel Austin

The large size of the seeds also aid in attaining monodominance as they are difficult to disperse far from the parent by the wind or by animals. Other mechanisms include ectomycorrhizae which is a form of symbiosis between a plant root and fungus. The fungus cover the tips of the roots and form hyphae which extend into the soil, thus increasing the surface area for the uptake of nutrients.

However, the scientific literature gives many counter examples to these mechanisms, but this should not be taken as means to discredit these mechanisms but suggest that more than one needs to be employed if a plant species is to achieve monodominance in an area. It is suggested that since many of the mechanisms are slow-acting, the area requires a low level of disturbance over multiple generations in order for monodominance to be achieved.

It has also been proposed that for monodominance to occur some of these traits or mechanisms need to exist in certain stages of its life. Traits at the juvenile stage include shade tolerance by saplings, possession of long-lived leaves and large seeds, possessing mechanisms to lower leaf damage and ectomycorrhizae.

While as an adult the plant should exhibit mast fruiting, poor dispersal of seeds, production of deep leaf litter, and production of leaves that are slow to decompose, thus providing a low turnover of nutrients.

Other adult traits include the production of a dense and uniform canopy as well as the ability to remain standing after death in order to reduce tree fall gaps that could result in the growth of other tree species due to the release of resources.

However, the distribution of monodominant forests is not consistent in all three tropical regions for instance; dominance of a single tree species is relatively non-existent in the Amazon except for forests of *Peltogyne gracilipes* found in Brazil. One of the factors that influence the distribution of monodominant forests, is the level of disturbance the area experiences.

The second factor is the rate of competitive exclusion which is proposed to occur when two species are competing for the same resources under the same ecological conditions however one has an advantage over the other, dominating the area in the long term. Therefore an increased rate of competitive exclusion can occur due to a reduction in the number of competing species, for instance on an island, thus causing monodominance.

In terms of maintaining monodominance, it has been suggested by that the regulation of herbivores by carnivores found in the third level of the food web play a role in by preventing them from decimating these forests thus allowing a release of resources like sunlight to other tree species.

Some species of trees also show monodominance in one area but not in another, for example Mora forests are found here in Trinidad as well as in Venezuela and Guyana. However, the Mora forests found in Trinidad differ in their ecological relationship from those found in Venezuela and Guyana in that they are considered to be invasive nature, taking over other forest types.

Another interesting feature about these forests is that they may be found adjacent to multispecies forests. Therefore although *M. excelsa* is invasive its stands may include other species found in the area usually derived from the forest type it invaded, a common species is *Carapa-Eschweilera*.

But why study monodominant forests? The study of naturally occurring monodominant forests helps in the understanding of the ecological relationships that take place in monodominant forests planted by humans, such as plantations of tree crops like pine trees for lumber.

We need to know if restricting the plant biodiversity is harmful to the animal biodiversity in the area. The diverse plant biodiversity of tropical forests mean that they contain many microhabitats for numerous species from single cell organisms to invertebrates and vertebrates. Therefore, the study of monodominant forests allows us to investigate to what extent these organisms are dependent on the plant diversity.

Unfortunately relatively few studies have been done comparing the faunal biodiversity between monodominant and mixed forests. However, so far it appears that like the influence of monodominant forests on organisms is dependent on the species themselves.

For instance, spiders which are good biological indicators as they mainly feed on and therefore regulate insects found in lower levels in the food web, while acting as food themselves for animals in higher food web levels.



In Trinidad the species richness of certain web-building families did not differ significantly between mixed-species forests and Mora forests.

However monodominant *Gilbertiodendron dewevrei* forests in Northeast Congo were found to contain on average roughly two times less species than in mixed forests. It comes as little surprise that web-building spiders were not affected by the lack of plant diversity in monodominant forests as they are heavily reliant on the vegetation structure to provide them with adequate sites to attach their webs. However, a complete survey of the spiders in monodominant forests and mixed forests in Trinidad has not been done so a comparison could not be made.

Therefore one can see that the existence of tropical monodominant forests is dependent on the evolutionary traits of the plant species in combination with ideal ecological conditions that allow the species to dominate the area.

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LDCs warn: Progress on finance and adaptation should not be lost in round of compromise

During the climate negotiations in Bangkok in late August, the Chair of the Least Developed Countries (LDCs) group warned that there is a big risk that key issues could be lost that are vital to protect poor countries from the ravages of climate change, which they are already experiencing.

“We need massively increased finance for adaptation and for action to reduce emissions and we need to set up a proper international coordination process to deliver resources for adaptation to those in most need,” said LDCs group’s chair, Pa Ousman Jarju, of The Gambia.

“We cannot live with these issues being deferred until a new agreement is negotiated in 2015 and would not even come into effect in 2020. We are experiencing global warming induced drought, water and food shortages now,” said Jarju.

“The drought in the USA is costing insurance companies money, but the droughts in the LDCs are causing loss of life and livelihoods, malnutrition in our children and huge dislocation which is very serious for our survival.”

He said the Durban meeting in December 2011 agreed on four major tasks for countries to complete by the December 2012 conference in Doha:

- adopt a second commitment period of the Kyoto Protocol
- start a new treaty negotiation
- raise the level of ambition and
- to conclude our long negotiations under the 2007 Bali Action Plan, which must deliver on finance and adaptation.



Pa Ousman Jarju

“The Bali Action Plan is fundamental in protecting the interest of LDCs – right here and right now, and not in ten years’ time,” said Jarju. “Our attitude towards it reflects our attitude towards any future agreement. Two years of dialogue followed by five years of negotiations with interim key decisions in Cancun and Durban cannot just be ignored as if they never happened.”

“It is extremely important that Governments agree to respect the commitments they have already made to provide finance, technology and capacity building to developing countries and to enhance cooperation to help them adapt to the impacts of climate change and not to use the focus on a new processes to avoid past promises. We cannot indefinitely delay action, especially with regard to climate change, which is already upon us.”

With drought and a food crisis afflicting the Sahara and the Sahel region of Africa, political instability in Mali and a desert region under Islamists control, the future for the ancient Tamashek (Tuareg) nomads in Mali is looking very bleak. Guy Lankester runs a travel company, From Here 2 Timbuktu, www.Fromhere2timbuktu.com, taking tourists to the Sahara desert. Here he recalls his encounter with the blue people of the desert and intimate time spent with them. The Tuaregs are called the blue people of the desert for the indigo-dyed clothing they wear on special occasion when the dye rubs off on their skin.



Blue People of the Desert



By Guy Lankester

Kids bleating, children calling, I stir from my desert slumber. Awaking in the desert is like being born again each day. Sounds, air, earth, burning wood. I'm in the desert! I'm conscious.

Talla's soft lilting intonation, a familiar morning chorus seeps into my consciousness. "Gaye" a soft voice chimes, "du lait".

I sit up on my mattress laid out on the barren earth, the half-light still cool on my face. Tamoye has brought me fresh goat's milk.

There is more commotion today as some of the children have gone and the animals are missing. The family tent has already been taken off its frame and lays spread out before me. I must have been dead to the world.



Rhissa comes over.

"We are moving today".

"Where?"

"Towards 20 kilometers, there have been good rains there. Give me your keys".

I reached into my jacket pocket. "Where are all the animals?"

"Abdullah has gone on ahead with the goats and sheep".

I hand him the keys.

As Rhissa goes off to move my Toyota Hilux into place to load up the life possessions of three families' tents, I go and sit by Mohammed, who is expertly pouring tea in long arcs between a glass and the pot, and his fire. Good timing. For the Tuareg, and now for me, a day without tea is life without soul.

Mohammed pours out a few drops of tea into a glass. He slurps the lightly frothing mix, the connoisseur approving his craft. Satisfied, he finishes the glass, cleans the glass with water and pours out a half measure of tea and stretches out his arm to me.

"Gaye Atay"

The first tea. Strong and bitter, for death. A wake up tonic, a sharp espresso with no sugar.

Sarid springs into view. The day is already old for the wily patriarch though the light is just emerging. I finish my tea and hand back the glass. Mohammed pours another and hands it to Sarid, who knocks it back in one swoop. "Ah Gaye, Gaye, you will see things today". The old charmer's eyes flash a smile behind his veiled face. He dips his veil to reveal his toothless grin, swigs his tea, re-covers his face to above the nose and lets out a satisfied gasp. He moves off shouting orders to Tamoye and Kedeka who skip to obedience.

While Mohammed brews the second tea and the family pack up their camp and ready themselves for the move, I'd better explain where I am.

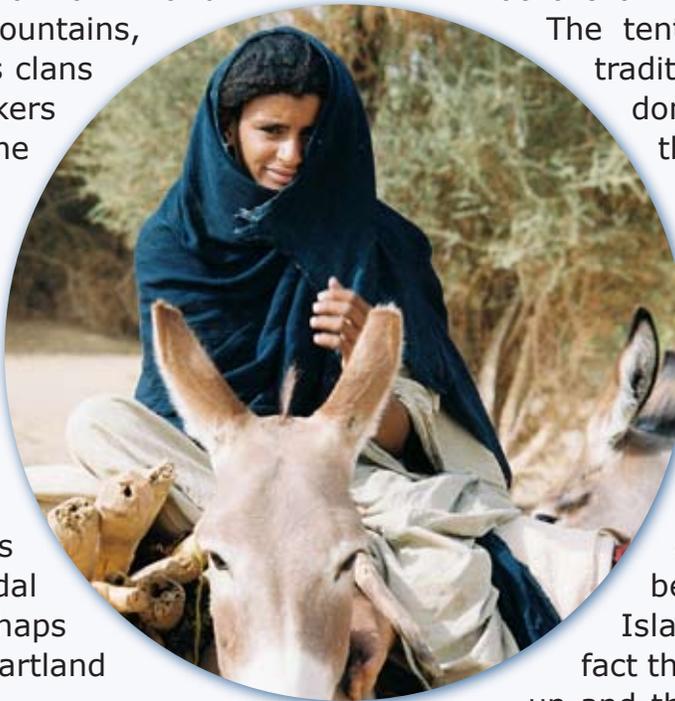
I'm deep in the Sahara desert, in the valley of Tillemsi and the Adrar Des Iforas near Aguelhoc. I've returned to Sarid and Talla's family and a community of Tuaregs I know.

More correctly they are kel Tamashek - the speakers of Tamashek but the world has got to know them as the Tuareg, the famous blue people of the desert.

I have returned to spend September with them because I had been told of the beauty of the desert after the rains and I wanted to experience the family moving around with the moving localised pastures. At this time the animals need to stock up on the plentiful desert. Before now I have always been with them during winter, the dry season when the family stays in one place.

Although a valley, the western horizon stretches out flat as an anvil and to the east the mountains, (Adrar) of the Iforghas clans of Tamashek speakers are small lumps in the distance.

With the Tuareg losing their dominance in their traditional strongholds of Tamanrasset in the Hoggar Mountains of Algeria and Agadez in the Air mountains of Niger the Adrar Des Iforas and the Kidal region of Mali is perhaps the last remaining heartland of Tamashek culture.



Mohammed pours the second tea. Fresh water and sugar have been added to the leaves of the first tea and brought back to the boil. The ritual mixing, brewing and refining complete. Half the glass is dark brown tea, half a golden head. There's a smell of caramelised sugar. Mohammed stretches a glass of half dark tea and half a golden frothy head.

The second tea, sweeter than the first, for life. This tea sets you up for the day. A double espresso with sugar.

I gulp my tea and help with the packing of my Hilux. There are three families moving and so three tents, three broken down

frames of sticks, and the worldly possessions of three families are packed into Sarid's old Toyota Landcruiser and my pickup.

I help Talla roll up the tent. One hundred of their sheep and many women sewing together made this beautiful ochre red patch work tent. The leather tents are the special ones and used in the rains. The tent symbolises the woman's central role in Tuareg society in accordance with the matrilineal and strong matriarchal influences in Tuareg life.

The tent and the children are traditionally the woman's domain, the animals and the nomadic pursuit of pastures the man's.

Islam has shifted family power back to the man, but traditionally Tuareg women held the balance of power in Tuareg families and communities. The outward manifestation of the slight mismatch between Tamashek and Islamic traditions is the fact that it is the men who veil up and the women who go open faced.

This tradition has left a legacy of equality between the sexes in family life which comes across in the lively debates between Talla and Sarid. Talla will submit to Sarid as the head of the family, but she protects her domain. If they disagree it is he who departs and she who stays.

It is said that before it was only Tuareg woman who could sue for divorce. With Islam a man may now have four wives, but I have heard it said that a man may not divorce any of these wives and he maintains responsibility for them and their children. A woman may seek a divorce from a man, and if she can show he has not lived up to his responsibilities, she is granted it.

There is a modern parable about how families make decisions about education for their children. Tamoye, who brought me my milk, is 12. She and her older brother Kedeka and their younger brother Badi go to school. Abdullah, who follows Tamoye, doesn't go to school, he's the goat herder. When asked if Abdullah may one day go to school, they laugh: "No, Abdullah keeps the goats". This is his role. It is an essential role so how could he possibly go to school? Tomoye's role is to go to school, and learn. She's bright and hopefully that path will give her the best chance to further the family's interests. She has it better than her elder sister, Maryama, the eldest in the family, who never had the chance to go to school. Rhissa, the eldest son who follows Maryama chose not to go to school, preferring to be with his father in the car, going with tourists to the far reaches of the desert.

There's Talla's tent - she is the matriarch, a slight bony softly spoken woman, she has 4 or 5 children who live between the family camp and their elder sister in Aguelhoc; Samoi's tent - she is Rhissa's wife and they have two small children who spend most of their time with their adored grandmother. Then there's Sarid's mother, Bela, who has her own small tent and Sabba a young black

Tamashek girl, probably from an indentured family linked to Sarid's family.

Now we are ready to leave.

Sarid and Talla and Sarid's mother, Sarid husband of Samou, Samou wife of Rhissa. Their smallest children, Tamoye and Sabba squeeze in with newly born kids and lambs into Sarid's already tightly packed vehicle.

Rhissa, Mohammed, Sarid get into the front of the pickup. Some other women who have mysteriously appeared go in the back with their children and bags and, Badi, young Sarid and I climb on the load behind. I'm going to film this.

And off we go. A duet of Toyotas off to another random spot in the desert.

Of course once the Toyota's would have been camels. The Tamashek of the region used to keep large herds of camels. But then the droughts came. A particularly bad one in the early 70s wiped out many of their herds and they have never recovered. For many Tuareg, one of the few ways of making some money has been to escort tourists. Instead of camels now, a family will have an old Toyota Landcruiser. Father and son will go to Gao 500kms to the south, looking for tourists who want to have an adventure in the desert.



After a few miles across the flat stony terrain Sarid is in full flow, giving a running commentary on the relative values of the locations, spotting light carpeting of light green shoots of grass. The unforgiving landscape I had known of this area was softer, smaller, and fresher than I had known it.

Ahead darkness was looming and on the ground leaves and bits of wood began dancing. We raced on faster but it was futile and within seconds the rain was falling in great sheets. The car stopped.

"Gaye get in".

"I'm fine, this is great".

I was soaked anyway!

We ploughed on. Already the land was a web of rivulets running off the baked earth. Great sheets of rain curtained us away from the world. The rain drenched us fast and furiously and then, just as quickly as the storm had been upon us, it disappeared. The sun now glistened off the freshly showered earth, steam rose up and suddenly the landscape was vast again and the air crisp and fine.

We pushed on for a few kilometers and everyone had great fun at my expense, the white man getting drenched on the roof of the car while they all covered inside tickled their humour.

At last we pulled up onto a gentle slope of stony scree looking down to green lines along the folds of the earth's gentle curves.

Baggage, sticks, tents, people, children and babies all fell out of the vehicles and fanned out into place. Talla took the youngest and began making a fire.

Sarid combed the terrain for the perfect place, while younger Sarid went off to indicate to Rhissa where to drop their belongings.

Sabba, the old mother's servant girl, branched off to investigate the unfamiliar rivulets of water.

Within half an hour all the baggage was strewn across the ground. Posts marked out the site of the frame for the tents. Samou left all her belongings under the tent leather which also sheltered the lambs and kids.

That night we slept al fresco. No one could be bothered to put the tent up. Mattresses checkered the ground, amidst baggage and tents. We ate, drank milk, had tea and laughed about the day we had had.

Three months later I attempted to return to Aguelhoc, but in the meantime Algerian salafist fighters had installed themselves in the mountains of the Adrar Des Iforas. Together with Sarid and Rhissa and the families' connections they managed to thwart a targeted kidnapping. Because of the presence of these bandits in the region no tourists have been able to travel to the Iforas since December 2009.

In January of this year, following the NATO led toppling of one of the Tuareg people's only international allies, Tuareg rebels re-ignited their rebellion against the Mali government. The weak government response to the rebellion sparked a coup in the south which was followed by the Tuareg rebels taking half of the country and declaring the independence of Azawad. But recently the Islamist fighters linked to Al Qaeda, have taken the historic city of Timbuktu imposing Sharia law.

The future was uncertain for the Tamashek people in 2009, now we may be witnessing the last throes of an ancient people who seem no longer able to live their nomadic life style as the deserts of the Sahara become home to a new regime.

One Light Bulb at a Time

Mexico achieves a Guinness record



The "Sustainable Light" ("Luz Sustentable") programme of the Mexican government entered the Guinness Book of Records for having replaced 22.9 million incandescent light bulbs with compact fluorescent or "energy-saving" ones.

In total, more than 5.5 million Mexican families already use energy-saving lamps that consume only 20% of the energy and last 10 times longer than a traditional light bulb.

In the first stage of the programme, partially financed by the World Bank, there were more than 1,110 points of exchange in the whole country.

To obtain four energy-saving lamps for free, it was only necessary to present four incandescent light bulbs, an electricity bill and an ID.

With the already replaced light bulbs, the saving is calculated to be 1,400 gigawatt hour (Gwh).

According to calculations by the Energy Ministry, the programme also has an impact on the budget at home, as a family can save up to 18% of the electric bill.

María Elena Noguera, 65, is an architect and she has changed her light bulbs to save energy and money. "My sister-in-law did it because I told her to and (the electricity bill) went down 40%," she explained.

Less consumption of electricity also favors the environment, as an emission of about 700,000 tons of CO₂ is being avoided with the light bulbs that have been replaced until now, the equivalent of more than 130,000 cars.

In its second stage, the programme hopes to replace other almost 23 millions of incandescent bulbs with energy-saving lamps.

This time, families that have not yet participated will receive eight energy-saving light bulbs in exchange of four normal ones. Those who already have participated in the first stage will receive four additional energy-saving light bulbs.

When the second stage ends, it is estimated that the saving will be of 2,800 Gwh per year, more than double the electricity consumption of the State of Campeche in 2011.

- Mexico entered the Guinness Book of Records for having distributed for free 22.9 million energy-saving light bulbs
- In the first stage of the program, partially financed by the World Bank, there were more than 1,110 points of exchange in the whole country.
- With the already replaced light bulbs, the saving is calculated to be 1,400 gigawatt hour (Gwh), or the energy consumed in a year in Nayarit or Colima.

STUDY IDENTIFIES POLITICAL LEADERSHIP AS NO. 1 ISSUE IN MANAGING DISASTER RISK

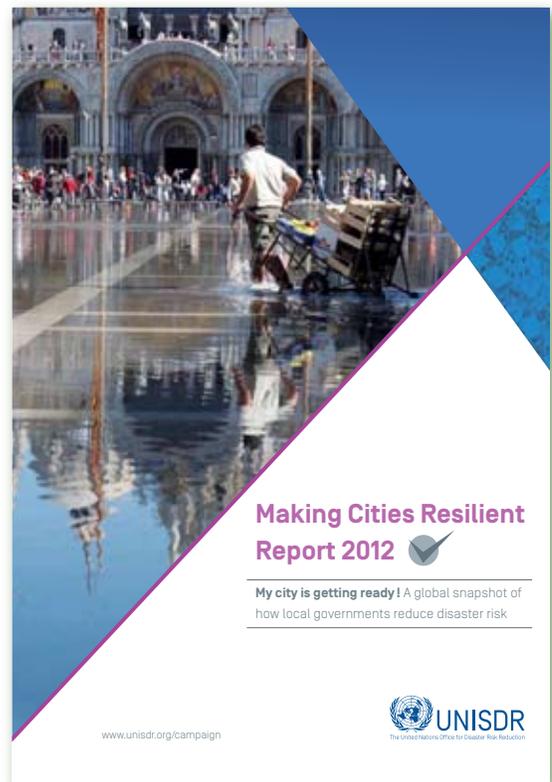
A new study of a major urban safety campaign launched by the UN two years ago has found that political leadership is more important than a city's wealth when it comes to protecting the lives and economic assets of cities and towns from disasters.

The "Making Cities Resilient Report 2012" provides a global snapshot of how local governments reduce disaster risk and was undertaken by a team from the London-based International Institute for Environment and Development led by Senior Fellow, Dr. David Satterthwaite.

Dr. Satterthwaite said: "The Making Cities Resilient campaign is proving that despite a rise in extreme weather events and the threats posed by climate change, urbanization does not have to lead to an increase in risk. Where city and local governments demonstrate leadership and competence in working with low-income populations living in informal settlements flood impacts can be reduced and the threats from other natural hazards minimised.

"Cities which understand how to prevent recurring losses will thrive and the campaign is motivating over 1,000 cities and towns to get a better handle on how to reduce their risk and avoid loss of life and damages."

The Making Cities Resilient Campaign was launched by the UN Office for Disaster Risk Reduction (UNISDR) after it was announced that for the first time in human history over 50% of the world's population now live in cities and urban areas. The majority of the 200 million people affected by floods, earthquakes and other natural hazards each year are urban dwellers.



The campaign now has 1,050 members ranging from major metropolises such as San Francisco, Copenhagen, Cape Town and Mumbai to small towns in countries such as Austria and Pakistan.

The campaign asks members to sign up to Ten Essentials for urban disaster risk reduction. The new study includes interviews with mayors and city managers from around the world and finds that for the majority the most important "essential" is putting in place the organisation and coordination to understand and reduce risk.

The UN Special Representative for Disaster Risk Reduction, Margareta Wahlström, launching the report at the World Urban Forum in Naples, said: "Economic losses to disasters have averaged at least \$100 billion annually over the last twenty years. Most of this damage can be avoided through better risk management and investment in social and structural infrastructure.

"The 40-plus cities profiled in this report were able to leverage whatever resources they had including the creativity of their citizens to reduce the impact of disaster events on their communities. Six months after joining the campaign the local government of Siquirres in Costa Rica took action on flood protection and in February 2012 the usual annual flooding was avoided.

There are many cities like Siquirres which are proving that if you manage your risks, you build your resilience to disasters and avoid unnecessary disruption in the home and the workplace."

Report author, Dr. Cassidy Johnson, of University College, London, said: "The straightforward simplicity of the Campaign's Ten Essentials is a key strength of the Campaign. These guidelines provide local leaders with a strategic framework to prioritise areas and approaches to disaster risk reduction and to chart progress."

UNISDR Campaign Director, Helena Molin-Valdes, said: "The Campaign provides a critical forum for local authorities to raise awareness, learn about disaster risk reduction, share ideas and identify solutions. The association with an UN-affiliated global Campaign gives local authorities a sense of empowerment which usually translates into tangible actions and policies."

Across all the cities analysed in this report, the five types of activities occurring most frequently are:

1. Taking disaster risk reduction into account in new urban planning regulations, plans and development activities;
2. Establishing councils/committees/ disaster management structures dedicated to disaster risk reduction;
3. Constructing hazard-resistant infrastructure or improving existing facilities;
4. Establishing education/awareness/ training programs;
5. Citizen participation/ multi-stakeholder dialogues.

Another important trend is the extent to which cities are integrating disaster risk reduction into other local government activities, including education, livelihoods, health, environment, and planning, either by incorporating risk considerations into existing activities or initiating projects that address multiple issues simultaneously.



Photo: eyeonearthsummit.org

Helena Molin-Valdes

WMO, UNCCD Call for Coordinated Efforts to Manage Risks from Drought

The drought gripping the United States of America and the ripple effects on global food markets underline the vulnerability of our inter-connected world to a natural hazard that is expected to increase in future.

The World Meteorological Organization (WMO), the UN Convention to Combat Desertification (UNCCD) and other UN agencies are stepping up efforts to develop more coordinated and proactive policies for managing drought risk to fill the existing vacuum in virtually every nation.

"Climate change is projected to increase the frequency, intensity, and duration of droughts, with impacts on many sectors, in particular food, water, and energy," said WMO Secretary-General Michel Jarraud. "We need to move away from a piecemeal, crisis-driven approach and develop integrated risk-based national drought policies."

"The 2010 drought-induced famine in the Greater Horn of Africa, the ongoing crisis in the Sahel region and the extensive drought in the USA show that developing and developed countries alike are vulnerable," said Luc Gnacadja, Executive Secretary of the UN Convention to Combat Desertification (UNCCD).

"Effective long-term solutions to mitigate the effects of drought, and address desertification and land degradation urgently need to be mainstreamed in national development plans and policies."

To achieve these objectives, WMO, UNCCD and other U.N. partners are organizing a High-level Meeting on National Drought Policy from 11-15 March 2013.

According to the U.S. Drought Monitor, as of July 31, 62.9 percent of the contiguous U.S. was experiencing moderate to exceptional drought. The percent area of the country in the worst drought categories

(extreme to exceptional drought) doubled, from 10 percent in June to 22 percent in July. The extreme dryness and excessive heat devastated crops and livestock from the Great Plains to Midwest. An update issued 16 August said there were a few notable improvements – notably in the Midwest – and some serious degradation.

In India, the southwest monsoon season that began in early June brought deficient rainfall in 50% of the 624 districts in the country through the end of July. From June 1 through August 1, the first half of the monsoon season, total average seasonal rainfall was just 81 percent of the long term average, while the in northwest region of the country cumulative rainfall was 65 percent of the long-term average. In India, monsoon rainfall less than 90 percent of average constitutes drought.

NOAA's State of the Climate Global Analysis July 2012 said the globally-averaged temperature for July 2012 marked the fourth warmest July since record keeping began in 1880, and the warmest in the United States. It also marked the 329th consecutive month with a global temperature above the 20th century average.

According to the 2011 WMO Statement on the Status of the Global Climate, severe drought developed in parts of East Africa in late 2010 and continued through most of 2011.

The most severely affected area encompassed the semi-arid regions of eastern and northern Kenya, western Somalia and some southern border areas of Ethiopia. Outside of East Africa, the most significant drought of the year was in the south-central United States and adjacent areas of northern Mexico.

Crunch time for Caribbean corals

Time is running out for corals on Caribbean reefs. Urgent measures must be taken to limit pollution and regulate aggressive fishing practices that threaten the existence of Caribbean coral reef ecosystems, according to a new IUCN (International Union for Conservation of Nature) report.

Average live coral cover on Caribbean reefs has declined to just 8% of the reef today, compared with more than 50% in the 1970s according to the report's findings. Furthermore, rates of decline on most reefs show no signs of slowing, although the deterioration of live coral cover on more remote reefs in the Netherlands Antilles, Cayman Islands and elsewhere is less marked—with up to 30% cover still surviving. These areas are less exposed to human impact as well as to natural disasters such as hurricanes.

"The major causes of coral decline are well known and include overfishing, pollution, disease and bleaching caused by rising temperatures resulting from the burning of fossil fuels," says Carl Gustaf Lundin, Director of IUCN's Global Marine and Polar Programme. "Looking forward, there is an urgent need to immediately

and drastically reduce all human impacts if coral reefs and the vitally important fisheries that depend on them are to survive in the decades to come."

IUCN is calling for strictly enforced local action to improve the health of corals, including limits on fishing through catch quotas, an extension of marine protected areas (MPAs), a halt to nutrient runoff from land and a reduction on the global reliance on fossil fuels. Through the IUCN-coordinated Global Coral Reef Monitoring Network (GCRMN), there are also moves to strengthen the data available concerning coral reef decline at a worldwide level.

"We need simple universal metrics for the status and trends of coral reefs worldwide and a central repository for coral reef data that is freely and easily accessible to everyone," says Jeremy Jackson, Science Director, Global Coral Reef Monitoring Network (GCRMN).

"We are rising to this challenge by extending the methodology of our Caribbean analyses throughout all tropical seas. Results of these separate studies will be posted online as they are completed and will provide a global synthesis by 2016."

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