

JULY 2014 • Issue 9

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CBD NEWSLETTER FOR CIVIL SOCIETY

SPECIAL FOCUS

Progress towards the Aichi Biodiversity Targets



Saving coral reefs in the Western Indian Ocean

Reducing local stressors to reefs help corals survive climate change

Recreational boaters helping efforts to achieve Aichi Targets

Ocean conservation organization helps reduce threat of invasive alien species

Implementing Aichi Target 3 in the livestock sector

Eliminating or reforming subsidies with negative impacts on biodiversity may have multiple benefits



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Convention on
Biological Diversity

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[square brackets] is a newsletter focusing on the Convention on Biological Diversity (CBD) and civil society. It aims to draw content and opinion from relevant individuals, organizations and members of civil society and provide information on issues of importance to the CBD, and on views and actions being undertaken by civil society organizations.

This newsletter aims to present a diversity of civil society opinions. The views expressed in the articles are the views of the authors and do not necessarily reflect the views of the Parties to the Convention on Biological Diversity, its Secretariat or the CBD Alliance.

Useful links

Convention on Biological Diversity – www.cbd.int
 CBD Alliance – www.cbdalliance.org
 Eighteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 18)
www.cbd.int/doc/?meeting=sbstta-18
 Fifth meeting of the Ad Hoc Open-ended Working Group on Review of Implementation (WGR1 5) – www.cbd.int/wgr15/

Previous editions of [square brackets]:

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 ISBN 92-9225-531-2 (Web)



Convention on
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Contents

- 3** **Preparing for Pyeongchang**
 Bráulio Ferreira de Souza Dias, Executive Secretary of the Convention on Biological Diversity
- 4** **Message from the Board of the CBD Alliance**
 By S. Faizi, Chairperson, CBD Alliance
- 5** **Saving coral reefs in the Western Indian Ocean**
 by Dr. Jennifer O’Leary, Stanford University; and, Arthur Tuda, Kenya Wildlife Service
- 8** **Recreational boaters helping efforts to achieve Aichi Targets**
 by Tyson Bottenus, Program Coordinator, Sailors for the Sea
- 10** **Eradication success on World Heritage-listed Macquarie Island**
 by Liz Wren, Manager, Media Communications, Tasmania Parks and Wildlife Service
- 12** **An assessment of rattan and bamboo for sustaining a thriving cottage industry**
 by Ebenezer Tabot-Tabot, Africa Regional Director, Centre for Environment and Human Development (CEHDev)
- 14** **Implementing Aichi Target 3 in the livestock sector**
 by Mia MacDonald, Brighter Green; and, Simone Lovera, Global Forest Coalition
- 16** **Finance for biodiversity: Promises not kept**
 by Rashed Al Mahmud Titumir, Department of Development Studies, University of Dhaka; and, Chairperson, Unnayan Onneshan
- 18** **Biofuel subsidies: Is reliance on sustainability standards perpetuating harmful incentives?**
 by Almuth Ernsting, Co-Director, Biofuelwatch



MESSAGE FROM THE EXECUTIVE SECRETARY

Preparing for Pyeongchang

Braulio Ferreira de Souza Dias ●

Executive Secretary of the Convention on Biological Diversity

The twelfth meeting of the Conference of the Parties (COP 12) to the Convention on Biological Diversity (CBD), to be held in Pyeongchang, Republic of Korea, in October 2014, is fast approaching. Informed by the findings of the fourth edition of the Global Biodiversity Outlook (GBO4) and the fifth National Reports, COP 12 will serve as a crucial milestone to review progress towards the Aichi Biodiversity Targets and to provide a roadmap for renewed commitment in implementation of the Strategic Plan for Biodiversity 2011–2020.

To help prepare for this, the fifth meeting of the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention (WGRI 5) looked at, among other things, the status of implementation of the Strategic Plan for Biodiversity and considered the mobilization of resources. The Working Group made some very clear and strategic recommendations, bringing together capacity-building with technical and scientific cooperation and better use of the clearing-house mechanism. With regards to resource mobilization, the Working Group tried to identify gaps in financing and ways to fill these gaps. I am pleased to note that we made some progress. In particular, we now have language available that, despite including some brackets will, I believe, be a good basis for further negotiations at the COP.

The Working Group also reached a significant agreement on ways to improve the efficiency of structures and processes under the Convention, placing implementation of the Convention at the forefront of future work. This included recommendation for the establishment of a subsidiary body on implementation. Delegates also looked at the relationship between the Strategic Plan and the ongoing discussions under the United Nations General Assembly to establish sustainable development goals (SDGs). The Working Group advanced the integration of biodiversity in sustainable development and poverty eradication programmes by recommending very clear and strong decisions to be considered by the COP for adoption.

Since March 2013, the Open Working Group (OWG) on Sustainable Development Goals established by the United Nations General Assembly has been working to develop a proposal for the SDGs. The present draft of potential goals and targets on sustainable development includes strong attention to biodiversity. Biodiversity is addressed in a proposed goal to “protect and restore terrestrial

ecosystems and halt all biodiversity loss”, and within targets of another proposed goal to “attain conservation and sustainable use of marine resources, oceans and seas”. Biodiversity is also addressed directly in the targets of goals related to ending poverty, food security and sustainable agriculture, water and sanitation, and sustainable cities and settlements.

The importance of biodiversity for sustainable development will provide an important context for the COP 12 and its high-level segment. It remains my hope also that the first meeting of the Conference of

the Parties serving as the meeting of the Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization will take place concurrent with COP 12. The Protocol will create new incentives to conserve and sustainably use biodiversity, and further enhance the contribution of biodiversity to sustainable development and human wellbeing.

Key to the implementation of the Strategic Plan is the engagement of all stakeholders in the processes and implementation of the CBD. At WGRI 5 we included two informal dialogues on “Implementation of the Strategic Plan for Biodiversity 2011–2020:

Mainstreaming Biodiversity for Sustainable Development” and “Means of Implementation to Mainstream Biodiversity for Sustainable Development”. The dialogues allowed representatives from governments and major groups to share views on these issues. The result of these dialogues may help inform on these two key issues that will be considered by COP 12, which are also issues being discussed in the UN General Assembly.

The eighteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 18) will provide advice on the draft of the Global Biodiversity Outlook 4, which provides an assessment of the status and trends of biodiversity and progress towards the Aichi Biodiversity Targets. The meeting will also provide an initial review of research on a number of marine issues including the results of seven regional workshops on ecologically and biologically significant marine areas (EBSAs), a report on ocean acidification and others. Invasive alien species will also be discussed, including a report on guidelines for the trade in pets and live bait. Recommendations will then be forwarded to the COP for consideration.

Many of the aforementioned topics are addressed in this edition of Square Brackets. I hope that you will find these articles informative and interesting. Please feel free to send us any comments that you may have, in addition to suggestions for future articles. ❖



Message from the Board of the CBD Alliance

By **S. Faizi** ● Chairperson, CBD Alliance (biodiversity@rediffmail.com)

It is important to emphasise that the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) is not a preparatory committee for the meetings of the Conference of the Parties (COP), but a body with well-defined statutory functions as set out under Article 25.2 of the Convention. One of its key mandates is to 'prepare scientific and technical assessments of the effects of types of measures taken in accordance with the provisions of this Convention'. There is widespread civil society concern that SBSTTA has yet to seriously fulfil this important mandate invested in it by the Parties and, likewise, that the COP has yet to seriously review the progress of implementation of the Convention in line with its original mandate. Infractions, breaches and non-compliance should naturally figure on the agenda of COP meetings, but that has yet to happen. The COP of the Convention on International Trade in Endangered Species (CITES) has a lesson or two to offer to the Convention on Biological Diversity (CBD) in this respect.

CBD marked a departure from the previous generation of conservation treaties by incorporating the provisions of sustainable use and equitable benefit sharing. These two pillars of the CBD objectives are central to poverty eradication and this pursuit is embedded in several of the CBD articles. And yet the poverty issue remained submerged until the ninth meeting of COP (COP 9). Fortunately the biodiversity-poverty linkage is now gaining momentum, against resistance from some corners, and the COP-mandated Expert Group on Biodiversity for Poverty Eradication has delineated a set of principles as well as guidelines for taking the issue forward. While its prescriptions will be improved and rationalised by the Working Group on Review of Implementation of the Convention (WGRI) and COP 12, it is important that the biodiversity for poverty eradication motto should be vigorously promoted, both by governments and civil society. It would be worthwhile also to consider designating a future year as the International Year of Biodiversity for Poverty Eradication, to bring greater attention to the issue.

The corporate world in the West is pushing what it calls as biodiversity offset to be a conservation enterprise. Natural habitats are the result of the ecological succession of a few thousand years, products of a complex interplay of various trophic levels and biogeochemical dynamics, and these cannot be substituted. The loss of species that habitat destruction entails cannot be replaced. The CBD process should address such issues and appropriately guide the world, under the 'new and emerging issues' that the SBSTTA and COP address.

The civil society wishes to see more implementation actions happening, and that capacity issues with respect to CBD enforcement are adequately addressed. Let the civil society and governments join hands to have the treaty fully implemented. After all, we had invested so much hope in it when the treaty was negotiated two decades ago. 🌿

Saving coral reefs in the Western Indian Ocean

by **Dr. Jennifer O’Leary** ● Stanford University (jkoleary@stanford.edu); and, **Arthur Tuda** ● Kenya Wildlife Service

Coral reefs are one of the most biodiverse and spectacular ecosystems on earth. However, recent global estimates indicate that approximately 34% of coral reefs have been destroyed or are declining. Coral reefs are threatened by climate change, pollution, overfishing and often a combination of factors.

But there is hope for these ecosystems. This hope is critical as coral reef ecosystems economically support millions of local people around the world through small-scale fisheries and tourism. By reducing local stressors to reefs like over-fishing and pollution, it is possible to help the corals (the framework and habitat of reefs) survive through current and future climatic change.

Marine Protected Areas

Marine protected areas (MPAs) are viewed as among the best strategies to conserve coral reefs (and many other marine ecosystems) and to help maintain benefits to people and preserve biodiversity. MPAs are expected to restore ecosystems (especially through fully protected “no-fishing” areas), and to improve socioeconomic conditions by increasing revenues through ecotourism and fish spillover from MPAs to fished reefs. MPAs are a component of the Aichi Biodiversity Targets under Strategic Goal C: to improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. Aichi Target 11 specifies that at least 10% of coastal and marine areas are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas.

Unfortunately, the commitment to establishing MPAs has not been matched with effective MPA management. Most MPAs fail to meet their management goals, such as fisheries and habitat enhancement. Conditions in MPAs can change despite strict regulations, because of changes in environmental conditions or human related impacts within and beyond MPA boundaries. Thus management of MPAs must be active and science-based.

In the Western Indian Ocean (WIO) considerable efforts have been made over the past two decades in establishing government mandated MPAs, and there are more than 70 individual sites over which some form of government (e.g. Kenya) or government-stakeholder co-management (e.g. Tanzania) exists. However, the WIO Management Effectiveness Assessments in 2004 revealed common deficiencies in management across nations which include: 1) unclear management objectives for MPAs, 2) ad hoc decision making without data, 3) few systems for demonstrating effectiveness, and 4) low capacity of MPA managers and staff to deal with uncertainty. As an example, in Kenya which has some of the oldest MPAs, one MPA has lost most of its corals without managers or stakeholders being aware.

Science-based approach

A new program in Strategic Adaptive Management (SAM) has been developed to train MPA managers to use a proactive, science-based approach to management. SAM began as a pilot program in a single MPA in Kenya and has now been nationally endorsed as the MPA management strategy in Kenya and Tanzania. The program is run collaboratively between the Kenya Wildlife Service, the Tanzanian Marine Parks Authority, the Western Indian Ocean Marine Science Association and Stanford University.

Transition from a damaged reef that has been over-fished to a healthy reef in an MPA (Kenya).





The beach at the Mombasa Marine Park and Reserve is visited by thousands of people, but most don't understand coral reefs or the role of MPAs. Many MPA staff and stakeholders have not seen the coral reefs – shown here is an MPA staff member seeing reefs for the first time.

The SAM program incorporates science-based adaptive management approaches, focusing on learning-by-doing. Managers set objectives and use data to evaluate whether they are achieving their objectives. If not, a suite of management actions is developed to address concerns. When a management action is implemented, managers use before and after data to evaluate effectiveness of their action and adjust course if need be.

Through the SAM program in Kenya and Tanzania, MPA managers have learned how to: 1) translate broad MPA goals to measurable objectives, 2) evaluate data to inform progress towards objectives and identify data gaps, 3) establish a data-sharing protocol between agencies, 4) assess MPA staff capacity, 4) train staff in marine management and basic social science and ecology, 5) collect basic social and ecological data to help fill data gaps and to keep MPA staff aware of conditions, 6) determine critical baselines for healthy MPA systems and thresholds at which management action should be taken, 7) understand how to use data to assess when management actions are needed and how successful actions that are taken have been, 8) developed strategies to integrate stakeholders into the MPA management and monitoring process, and finally, 10) learned how to apply the SAM approach across a suite of national MPAs.

Based on the program, MPA managers have already taken new actions to involve stakeholders in removing enormous amounts of plastic trash from MPA beaches and reefs, increase patrols of sea turtle nesting grounds leading to reduced poaching, and working with fishers to establish fisher-based monitoring and coral restoration efforts in fished reefs adjacent to MPAs. This summer (July 2014), fishers will work with managers to conduct fish tagging in the MPA to evaluate spillover to fished reefs in a way that fishers can understand.

Other nations in WIO are asking to become involved in the program and we are applying for funding to hold a region-wide training next year that will allow all MPA managers to come together and strategize on how to preserve the last remaining intact coral reef systems in the region and promote recovery degraded reefs. In Kenya and Tanzania, the program has transformed the role of MPA staff: from

guards preventing violations to conservationists actively managing reefs for biodiversity and other social-ecological targets. We are now conducting a region-wide survey of MPA data needs, use and value. We will use information from the survey and the work in Kenya and Tanzania to develop a regional program involving all government run and locally-managed MPAs. In the near future, we envision the region operating as a network of MPAs communicating social and ecological status, learning from each other, and evaluating local versus regional trends. ❖

AICHI BIODIVERSITY TARGET 11

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.



Kenya Wildlife Service Rangers doing group exercises during a SAM training to build staff capacity



Stakeholders and manager working together to determine MPA objectives. Stakeholders practicing transect methodologies in the classroom before going to the field for underwater training.



Community members work with MPA staff now on a daily and monthly basis to clean up massive amounts of plastic trash from MPA beaches. This octopus fisher with 40 years of experience has become a leader and trainer, working with fishers to restore and protect corals in the fished reefs as part of SAM



Kenya Wildlife Service Rangers collecting data on beach erosion and sea grass biodiversity and density trends in seagrass areas of the Mombasa MPA (data few people are collecting in MPAs regionally)

Recreational boaters helping efforts to achieve Aichi Targets

by **Tyson Bottenus** ● Program Coordinator, Sailors for the Sea (tyson@sailorsforthesea.org)

The *CBD Technical Series No. 67: Impacts of Marine Debris on Biodiversity* highlighted the risk marine debris poses as a major perceived threat towards the marine environment. At present, much of the attention spent on marine debris consists of its ability to be ingested by certain creatures and the risks of entanglement it poses. However, Goldstein (2014) and others have published a slew of new studies suggesting the threat posed by species migrating to different ecosystems via “rafting” on marine debris is understudied at best and one we should research more before the problem exacerbates.

In an effort to reduce the threat of invasive species from crossing oceans, Sailors for the Sea, an ocean conservation organization focused on the recreational boating community, has successfully created and implemented “Best Practices” that target pathways for marine debris and limit their dispersal into the marine environment.

According to the United States Environmental Protection Agency, plastic debris enters the marine environment through improper disposal

or accidental loss. Once floating, these plastic debris “islands” can serve as a pathway for invasive species to migrate across oceans to different continents. For example, residents of Oregon in the United States woke up one morning in 2012 to find a boxcar-sized dock washed up on one of their beaches with over 100 unique species of mollusks, anemones, crabs and oysters.

A plaque on the side of the dock revealed that it had traveled 8,000 miles across the Pacific Ocean from the Japanese coastal city of Misawa after it had become dislodged during the 2011 tsunami.

Invasive species

Aichi Biodiversity Target 9 specifies the need to *identify, prioritize and manage* pathways that invasive species could use to prevent their introduction and establishment by 2020. Based on the pathways framework developed by Hulme et al. (2008), rafting species would best be characterized as stowaways who attach themselves to transporting vessels. This is important because the frequency of “transport-stowaway” cases of invasive species is substantially lower than other types of pathways, as noted in the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) addendum on *Pathways of Invasive Species*.

Substantial quantities of microplastics are accumulating in regions of the oceans known as gyres, creating a new substrate for invasive organisms to migrate across continents.



HEIDI HIRSH



PAT KEOUGHAN

Gooseneck barnacles and epipelagic crabs, among many other organisms, consider this large piece of styrofoam home.

The term “transport-stowaway” is associated with “international trade, shipping, and other human activities of moving vessels”, but not necessarily marine debris. This could change at SBSTTA 18. Parties need to fully realize the threat marine debris poses and how it can be reduced. Currently, it has been argued that the best method to handling marine debris is to reduce it from ever entering the environment in the first place.

“Efforts to prevent debris input from both coastal (e.g., urban areas) and ocean sources (e.g., fishing debris) are likely the most efficient means of controlling debris-mediated species introductions,” writes Goldstein (2014). While this doesn’t negate the efforts of many coastal cleanup operations, it should be noted that these debris removal operations are less effective because sandy beaches are inherently inhospitable to rafting organisms.

No trash, no trace, no trail

Aside from macrofauna, which have the ability to climb from land, protozoa and other microorganisms pose threats to marine biodiversity, especially coral reefs, and could be spread via marine debris pathways. Croquer (2006) speculated that a ciliate that causes skeletal eroding band (SEB) disease in corals (and was also found in abundance on Pacific plastic debris) may have been spread from the Indo-Pacific region to Caribbean corals. By allowing more marine debris to enter the environment, we are only increasing the probability of these disease-spreading protozoa to extend their reaches to the far corners of the world.

Sailors for the Sea has been educating and engaging recreational boaters on the importance of biodiversity and how marine debris poses a myriad of problems to marine and coastal ecosystems. In 2013, during the 34th America’s Cup in San Francisco, we were able to divert 85% of event waste from the landfill. Through a variety of meetings with business, residential, and government communities in and around the city, we were able to reach and engage numerous stakeholders to clarify and illuminate challenges and opportunities related to the regatta’s sustainability effort.

To date, we have certified over 550 boating events and reached tens of thousands with our mission to leave no trash, no trace and no trail. By providing information to recreational boaters about how they can conserve biodiversity by limiting pathways of marine debris into the environment, we believe our mission falls directly in line with the Aichi Biodiversity Targets. ♡

During the 34th America’s Cup in San Francisco, we were able to divert 85% of event waste from the landfill.

AICHI BIODIVERSITY TARGET 9

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Eradication success on World Heritage-listed Macquarie Island

by **Liz Wren** ● Manager, Media Communications, Tasmania Parks and Wildlife Service

The World Heritage listed Macquarie Island has been declared pest free, following a seven-year program to eradicate rabbits, black (ship) rats and mice from the island.

It is the world's largest island eradication project for these three species at one time. The Tasmania Parks and Wildlife Service celebrated the success of the program in early April 2014 when the Macquarie Island Pest Eradication Project team returned to Hobart.

In 2007, the Australian and Tasmanian Governments announced they would jointly fund the \$25 million project to eradicate rabbits, rats and mice from the island. Parks and Wildlife Service project manager, Keith Springer, said that the island's large size (12,785 ha), its sub-Antarctic location 1500 kilometres south-east of Tasmania, and the fact it is accessible only by ship, presented incredible logistical challenges.

"Meticulous planning was required," said Mr. Springer, "to meet these challenges, ensure we had the best possible chance of successfully eradicating pests, and to minimise the impact on non-target species."

Operational plan

Following on-island trials, incorporating best-practice methodology from other islands with similar pests, and with regular global peer review, a three stage operational plan was developed. This comprised aerial baiting designed to remove all of the rodents and nearly all of the rabbits; a hunting phase targeting surviving rabbits; and a two-year monitoring phase – subsequently extended by several months

due to annual shipping schedules. The two-year time frame, while maintaining an intensive search effort, was considered sufficient time for any surviving individuals – especially rodents – to breed up to levels where their detection had a higher probability.

Aerial baiting of the island with cereal based bait containing brodifacoum (an anticoagulant used in rodenticide), was completed in 2011. This was achieved using four helicopters equipped with under-slung buckets and guided by GPS to ensure accurate bait coverage. Following the completion of baiting, a team of a dozen skilled hunters and 12 highly trained dogs immediately began searching the island for any signs of surviving rabbits, rats or mice. Eight surviving adult rabbits were found in the four months after the baiting, together with a single litter of juveniles. Three rodent-detection dogs joined the search in 2013. In the nearly three years since baiting was completed, the hunters and dogs have scoured the island thoroughly, searching night and day in all seasons, looking for any sign of surviving individuals of the three invasive species. With search coverage logged by GPS, they cumulatively walked nearly 92,000 kilometres.

According to Mr. Springer, the level of intensity of searching was such that had there been any sign of surviving individuals, they were confident that they would have found them over the two and a half years of monitoring work.

Rapid response

With the removal of the intense grazing pressure of an estimated 150,000 rabbits, there's been an amazingly rapid response in some of the most palatable and visible plant species, including tussock grass and the endemic megaherbs such as the Macquarie Island cabbage and silver leaf daisy.

Searching for any sign of surviving rabbits, rats or mice on Macquarie Island.



Loading bait into hopper during the aerial baiting phase.



It is the largest island eradication for these three species (rabbits, rats and mice) at one time to be achieved in the world.

Invertebrate numbers have rebounded in the absence of predation by rodents, and bird species are also beginning to recover. Some species such as the blue petrel, previously found only on rat-free offshore rock stacks, have already begun to recolonise the main island. Grey petrels and Cape petrels have had increases in recorded breeding success, and Antarctic terns have changed their breeding behaviour in the absence of predatory rats, moving from rock stacks to breed increasingly on cobblestone beaches. Overall, 24 species of seabird were expected to benefit from the removal of landscape altering rabbits, which competed with seabirds for burrows, and from removal of rats, which ate eggs and chicks of burrowing birds.

Impact assessment

In an environmental impact assessment, some seabird species were assessed as being susceptible to primary or secondary poisoning from the bait used, although the impacts were not expected to threaten their populations or have long-term impacts. Mortality of six species did occur, as was predicted, however all affected species

have been successfully breeding since baiting was completed and are not expected to sustain long term impacts.

While the initial recovery has been rapid, it is acknowledged that it may take decades for the island's ecosystem to achieve a new equilibrium after more than 200 years of impacts from a variety of feral species, including cats, rabbits, rats and mice.

"Pest eradication can be perceived as expensive in the short term, as it requires the removal of every last individual of a species, but in the long run is far cheaper than ongoing pest control, and usually with much greater biodiversity outcomes," said Mr. Springer.

Several factors were identified as critical in achieving a successful project outcome, the most important being that the Tasmanian and Australian governments committed to funding the seven-year project, thus allowing certainty around the planning work and contract management. ❧

MACQUARIE ISLAND

Macquarie Island, 34 km long and 5 km wide, is an oceanic island in the Southern Ocean, lying 1,500 km south-east of Tasmania and approximately halfway between Australia and the Antarctic continent. The island is the exposed crest of the undersea Macquarie Ridge, raised to its present position where the Indo-Australian tectonic plate meets the Pacific plate. It is the only place on earth where rocks from the earth's mantle (6 km below the ocean floor) are being actively exposed above sea-level. The island provides an outstanding spectacle of wild, natural beauty with huge congregations of penguins and seals.

Source: United Nations Educational, Scientific and Cultural Organization

Tourist boardwalk showing the extent of damage by rabbit grazing.



Sandy Bay boardwalk enclosure plot showing vegetation recovery two and half years after aerial baiting for rabbits, rats and mice.



An assessment of rattan and bamboo for sustaining a thriving cottage industry

by **Ebenezer Tabot-Tabot** ● Africa Regional Director,
Centre for Environment and Human Development (CEHDev)
(ebenezer.tabot@cehdev.org)

In Cameroon, and throughout the entire West and Central African region, the rural population is usually in excess of 75% of the total population. These constitute mainly peasant farmers whose livelihoods and survival hinge on the prowess and resilience of resource bases, essentially forests and wetlands, from which a wide variety of wood and non-wood forest products (NWFPs) are harvested for home consumption and trade. Within the mountain range of south-western Cameroon alone, over 300 of these NWFP species have been identified that are of local, national and international significance.

Rattan and bamboo feature prominently among the region's non-edible NWFPs. But, a recent survey conducted by the Centre for Environment and Human Development to determine their variability, abundance and distribution patterns shows that despite the relative abundance of two rattan and one bamboo species in three vast forest areas (Bayang-Mbo Reserve, Bachuo'ntai Biodiversity Corridor and Ejagham Forest Reserve), rattan and bamboo still has difficulties breaking through the artisanal barrier. This observation seems to reflect conclusions based on empirical evidence that Cameroonians do not regard rattan and bamboo as important NWFPs of commercial value.

Long tradition

Further investigation, however, shows this conclusion to be both hasty and wrong. Like most forest-dependent people, Cameroonians have a long tradition of exploiting rattan and bamboo. In villages, people use rattan as ropes for house construction, for producing household utensils such as baskets of various types, sieves for cassava flour (tapioca) and as protective decoration for palm wine receptacles such as calabashes and glass jars, amongst others. They also use bamboo as poles and rafters in furniture and house construction. In fact, there are rattan and bamboo furniture and utensil makers in cities and big towns all over the country, but these craftsmen are not skilled; the tools they use are rudimentary and their end-products are usually considered inferior by prospective buyers.

There are good reasons why this is so: harvesting and transporting rattan and bamboo is a tricky, tedious and dangerous exercise. The leaves and soft bark on rattan stems are thorny and so painful to handle that only someone with few alternative choices opts to get involved. Secondly, fresh rattan and bamboo strands are heavy. Transporting huge bundles of cane or bamboo on the head from the forest to the village demands strength and endurance that only a few men can muster. Unless there are ample financial incentives associated with this activity, few men will want to get involved. Producer villages that are linked to consumer cities and towns by several kilometers of bad roads offer very little, if any, incentives.

EBENEZER TABOT-TABOT



Other NWFPs apart from rattan and bamboo appear to be economically relevant only because they are mostly harvested, transformed and traded by women. There are two main reasons for this. First, women prefer to get involved in products that could also be used for home consumption. Secondly and more importantly, women have the necessary skills and knowledge in NWFP management, and are aided in the task by elaborate and flexible networks of *bayam sellam* (female middlepersons) who handle modest quantities of specific products for immediate disposal to other parts of the country or for export to neighbouring countries.

Bright prospects

But there can be bright prospects for rattan and bamboo harvesters and furniture and utensil makers in the country. Cameroon is open to an unexploited local market for raw cane and bamboo, as well as finished products. It is also open to a vast foreign market - Nigeria - for finished products essentially. To take advantage of these multiple opportunities, there is urgent need for community, local, national and regional development organisations to

show renewed interest in the rattan and bamboo sectors. Until now, only a few research oriented structures have delved into the sector, producing rich data and recommendations meant essentially for workshop participants, many for whom rattan and bamboo are neither a policy nor research priority.

There are many hurdles to building a vibrant rattan and bamboo-based industry, and these are certainly not just limited to ascertaining the abundance of raw materials and the existence or establishment of markets for the final products. Having the capacity to successfully satisfy identified niche markets, in terms of product quality, diversification, volume and regularity of supply, is another important (if not the most important) hurdle. In this regard, Africa could borrow a leaf from the rich Asian experience. Over the years, Asia has built the infrastructure, developed the skills, produced the machines and perfected the distribution channels of rattan and bamboo products. This calls for collaborative endeavours between African and Asian partners interested in the sector. For it to be effective, this collaboration should initially take the form of flexible networking for capacity-building and institution strengthening through the supply of simple but effective tools and machinery.✚

Bamboo is one of the fastest growing plants on Earth. Growing at rates of 61cm per day for some of the 1450 recognized species, bamboo can be a suitable alternative to traditional rain forest timber which takes decades to grow and is prone to deforestation, destruction of natural habitats and climate change. Compared to trees, bamboo sequesters four times more carbon dioxide and releases up to 35% more oxygen.

The sustainable use of rattan and bamboo – mostly sourced from the wild – will be discussed under Agenda Item 3.2 of the SBSTTA 18, the *review of the implementation of the Global Strategy for Plant Conservation 2011-2020* – as per COP Decision XI/26 on the Global Strategy for Plant Conservation. Furthermore, it is very relevant to Agenda Item 9.1, on the *integration of the conservation and sustainable use of biodiversity into climate-change mitigation and adaptation activities* – as per COP Decision XI/19 on biodiversity and climate change.

(Source: Ebenezer Tabot-Tabot)

Implementing Aichi Target 3 in the livestock sector

by **Mia MacDonald** ● Brighter Green (macdonald@brightergreen.org); and, **Simone Lovera** ● Global Forest Coalition (simone@forestcoalition.org)

International commodities like beef, soy, palm oil and wood have been recognized as some of the most important drivers of forest and biodiversity loss. As documented by the recent report of the UN Rapporteur on the Right to Food, throughout the global South, the small farmer running a family farm is rapidly giving way to the large-scale, factory farm model developed by industrialized countries. This is particularly prevalent in the livestock industry.

Billions of animals are now raised in inhumane and unsanitary industrial conditions. Nearly 70 billion animals are raised and slaughtered globally each year. A recent report on Paraguay documents how unsustainable livestock production—including cultivation of fodder and feed crops like soy—is a major factor in ongoing degradation or destruction of biodiversity and other negative environmental, economic, social and cultural impacts. Meat and dairy production already cover 30% of the Earth’s land surface, occupy 70% of agricultural land, account for 8% of the water that humans use, and are by far the principal drivers of forest loss in Latin America, the region with the world’s highest rates of deforestation.

Subsidies

As noted in the draft background documents for the Convention on Biological Diversity’s upcoming eighteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 18), eliminating, phasing out or reforming subsidies and other incentives that have negative impacts on biodiversity, in line with Aichi Biodiversity Target 3, may have multiple benefits. These include discouraging environmentally harmful behaviors, removing wider economic distortions, and freeing up scarce public resources that could be used to protect or restore biodiversity and support more sustainable forms of food production.

The overwhelming majority of Organization for Economic Cooperation and Development (OECD) subsidies to the livestock sector continue to support production systems highly dependent upon imported feedstocks like soy, as well as being highly questionable from a climate, environmental, social, health and animal welfare point of view. In November 2002, Nicholas Stern, then Chief Economist at the World Bank, calculated in a speech at the Munich Center for Economic Studies that the average cow in the EU gets US\$2.50/day in subsidies, and the average cow in Japan gets US\$7.50/day, while 75% of people in Africa live on less than US\$2/day.

Non-OECD countries are also increasingly subsidizing intensive livestock systems. China, for example, which has become the main destination of Latin American soy, provides more than US\$500 million in subsidies to promote “scale” livestock and poultry farms, on top of an estimated US\$564 million in “award” payments for major hog-producing counties. The Brazilian Development Bank provides generous soft loans to cattle and soy producers, The total amount of credit provided through the Brazilian government’s 2010 Agriculture and Livestock Plan was US\$61 billion, of which only US\$8.5 billion was directed towards small family farms, which produce an estimated 60% of Brazil’s food.

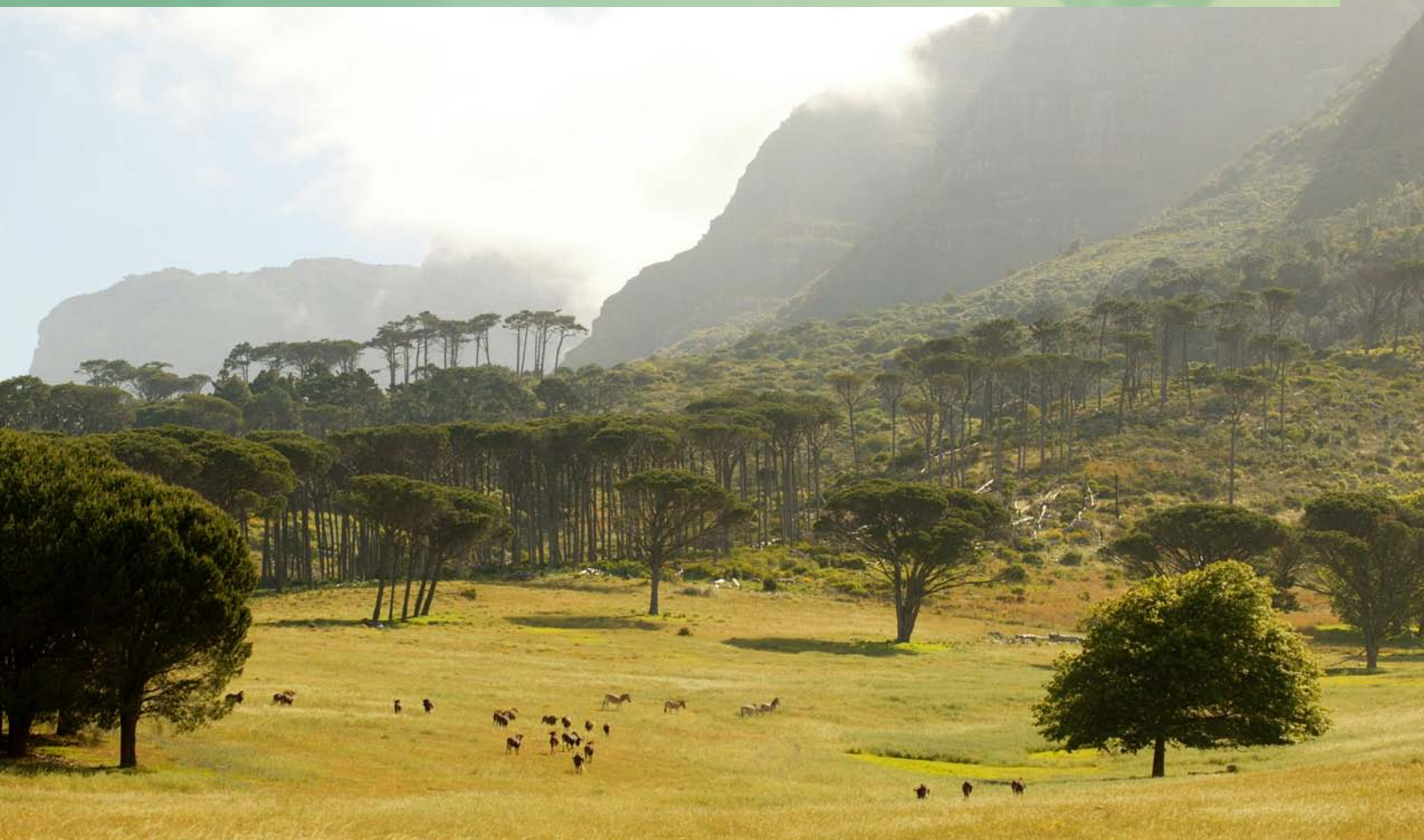
Sustainable practices

But more sustainable forms of livestock production exist as well. Indigenous peoples and local communities in countries as diverse as Iran, Kenya, Finland and Spain are trying to revive traditional herding practices that not only sustain age-old cultures but also enhance biodiversity, including in forest areas. The appropriate recognition of territories and areas conserved by Indigenous Peoples and local communities (ICCAs), and the legal recognition of indigenous territorial rights and community land tenure in general provide strong incentives for the continuation of these more sustainable practices.

Indigenous peoples and local communities in countries as diverse as Iran, Kenya, Finland and Spain are trying to revive traditional herding practices that not only sustain age-old cultures but also enhance biodiversity, including in forest areas.

Direct subsidies for animal products and feed in industrialized countries (OECD members) in billion US\$

Beef and Veal	18
Milk	15.3
Pigmeat	7.3
Poultry	6.5
Soybeans	2.3
Eggs	1.5
Sheep	1.1



Other possible steps to redirect perverse incentives in line with the Aichi Targets include:

1. Adopting fiscal reform that supports sustainable forms and levels of livestock and feed production and consumption, such as a redirection of the tax burden from sustainable to less sustainable products and production methods.
2. Developing and implementing strict legislation prohibiting livestock and feed production practices that involve biodiversity loss, high greenhouse gas emissions, environmental pollution, weak labor standards, land grabbing, health risks or maltreatment of animals
3. Reapportioning subsidies for industrial livestock to environmentally and socially sustainable, smaller-scale agricultural systems that conserve and enhance native grasslands, wetlands and open forests.
4. Incentivizing consumer campaigns on the benefits of dietary shifts away from high meat consumption and toward more diverse, plant-based foods.

Finally, as the draft documentation for the upcoming SBSTTA meeting rightfully points out, the reform of incentive schemes should take into account all economic, social, cultural, environmental, gender and equity aspects. For that reason, it is essential to ensure the full involvement of indigenous peoples, local communities and other rights-holder groups like women, small farmers, pastoralists, fisherfolks and trade unions in the design and implementation of incentive reform. 🐾

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Finance for biodiversity: Promises not kept

by **Rashed Al Mahmud Titumir** ● Department of Development Studies, University of Dhaka; and, Chairperson, Unnayan Onneshan (rtitumir@unnayan.org)

As Parties prepare for the twelfth meeting of the Conference of the Parties (COP 12) to the Convention on Biological Diversity (CBD) in Pyeongchang, Republic of Korea, the prospect of doubling total biodiversity-related international financial resource flows by developed countries to developing countries by 2015, in accordance with the CBD's Article 20.4, and maintaining this level until 2020, as agreed at COP 11, remains bleak.

According to the latest available statistics, biodiversity-related official development assistance (ODA) dropped by 7% in 2011 and by 15% in 2012. If the business as usual bio-intensity of 6% – measured by the ratio of biodiversity-related funding to the ODA – continues, the international community will miss the agreed target of US\$10.04 billion at 2011 prices. The bio-intensity needs to be no less than 9% or at the level of the ODA or both, otherwise other financial resources need to be increased in order to maintain the commitment. Most importantly, commitments made by developed countries to provide new and additional financial resources for agreed full incremental costs – not just ODA or multiple accounting of ODA – is an obligation that must be kept.

Resources

Failure to obtain adequate resources by Parties means that the unabated loss of biodiversity and persistence of high levels of poverty in mega-biodiversity areas will continue, resulting in declining ecological life-support systems worldwide.

Intriguingly, without living up to obligations, developed countries have come up with so-called private-sector-based 'innovative financial mechanisms.' Full of social risks, they lack economic sustainability and ecological feasibility. Moreover, there needs to be a clear distinction drawn between two kinds of strategies for resource mobilisation for the conservation of biodiversity. One strategy raises funds for developed country governments to enable them to comply with the financial commitments under the Convention. The other strategy is to facilitate increased financial contributions by the private sector to biodiversity conservation. Regardless of the desirability of private sector contributions, the sector hardly supports compliance with the legally-binding commitments of the CBD.

Financialisation of nature

Much of the discussion has steered clear of strengthening institutions and instruments to collect tax revenue from the profit-oriented market activities of the private sector. Instead there have been further attempts by developed countries and certain quarters to impose financial markets, and the trading and financialisation of biodiversity, which are then prone to debates and controversies.

The financialisation of nature, ways to extract value through opaque financial devices in the pre-text of lack of adequate investment, is full of risks. Independent studies show that in the long run, fictitious capital causes losses to both biodiversity and consumers. The lobby for such instruments are powerful. A complex mosaic of global players, in view of the downturn in rates of return on capital, has built relationships with financial intermediaries, leveraging additional dividends out of the securitisation of debts. Securitisation represents a claim against future cash flows – a fictitious form of capital, with high risks for bust.



Failure to obtain adequate resources by Parties means that the unabated loss of biodiversity and persistence of high levels of poverty in mega-biodiversity areas will continue, resulting in declining ecological life-support systems worldwide.

Regulators, if in place, are impeded by a lack of jurisdiction and mandate over the complex nature of holding of such securities, and often fall short of determining how such equity or debt is raised. Consumers are thus faced with forms of monopoly pricing and artificial product differentiation that result in losses of surpluses.

Given the questions on sustainability of different innovative finance mechanisms, Parties should apply a precautionary approach and avoid decisions and commitments since little reliable evidence exists to demonstrate the usefulness of such mechanisms in helping to achieve the objectives of the Convention.

“Access and Benefit-Sharing Mechanisms” represent another source of financing, as enshrined in the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. Many developed countries however, through their negotiations at the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, are backtracking on the Nagoya Protocol. Genetic resources and traditional knowledge are patented or commercialised with either no, or unfair and inequitable, benefit-sharing.

Revenues

Developing countries have a distinctive role as well. Due to weak institutions, they miss out on revenues and face over-exploitation of their natural resources. The streams of natural resources renewable benefits are productive rents and socially desirable, but the absence of property rights (‘free access problem’/‘tragedy of commons’) creates damaging effects of dissipation of rents (negative/extractive rents), resulting in allocative inefficiency, adversely impacting on the sustainability of natural resources and the collection of revenues. But this is not an argument in favour of private property rights. Rather it is about the stability of rights as a pre-condition for sustainability, as communal or collective property rights may in some cases be more efficient. There is a need to develop institutions which could unleash adequate resources for sustainable conservation.

There is also a need for a deeper understanding about missing revenues, as well as a need to establish regulatory regimes in developing countries, particularly when dealing with the private sector. Absence of regulatory regimes allow for rent fixation, through collusion, captures and intermediation. While on one hand adverse selection, moral hazard and information asymmetry lead to the loss of environmental benefits and over-compensation; on the other hand, bidder collusion in auctions results in revenue loss and additional exploitation. Bid rigging has escaped the attention of anti-trust policies, even in advanced countries, as the focus remains mainly on horizontal price fixing. In the developing world there are few laws that capture

these complexities, let alone enforce them. A series of reforms in these areas are called for and such avoidance could bring adequate resources for sustainable conservation of biodiversity.

Political settlements through vertical and horizontal collusions of resource appropriating syndicates – politicians, bureaucrats, capitalists and non-capitalists – perpetuate such forms of primitive accumulation. Existing structures of institutions, power and politics hinder access and use rights of poor, but for this to change, we need structural reform. ❖





Oil palm plantations in Sarawak, Malaysia.

Biofuel subsidies: Is reliance on sustainability standards perpetuating harmful incentives?

by **Almuth Ernsting** ● Co-Director, Biofuelwatch

Aichi Biodiversity Target 3 calls on Parties to eliminate or reduce subsidies harmful to biodiversity as critical for addressing the underlying causes of biodiversity loss.

Biofuels are associated with large-scale biodiversity destruction through direct and indirect land conversion, increased agro-chemical use, increased freshwater use, invasive species as biofuel sources and increased monocultures at the expense of agrobiodiversity. Decisions by the Conference of the Parties (COP) acknowledge that biofuels can have negative biodiversity impacts. Yet, rather than calling on Parties to abolish all biofuel incentives, they encourage policies that minimise or avoid negative impacts and promote positive impacts, and assert that sustainability standards can play a vital role in achieving this.

Can biofuels standards in the context of large state subsidies achieve those aims? Evidence so far suggests otherwise. It has been four years since the European Union (EU) introduced mandatory sustainability and greenhouse gas standards for liquid biofuels. EU biofuel standards have been widely criticised for not being comprehensive enough. They do not seek to address indirect impacts, they ignore

all social impacts, such as impacts on food prices, food security and human rights and they leave many biodiverse ecosystems unprotected. However, they should at least protect large areas of forests and peatlands from conversion for biofuels.

Palm oil

In Indonesia and Malaysia, forest and peatland conversion to oil palms is well-documented and significant quantities of palm oil from that region are used for biofuels in Europe. If EU biofuel standards were effective, one could expect a) much reduced use of palm oil use from regions with large-scale forest conversion to oil palm plantations or b) reduced forest and peatland conversion for palm oil.

There is no evidence that forest destruction for palm oil has declined in Malaysia or Indonesia. According to Indonesian government figures, Indonesia lost at least 1.24m hectares of forest between 2009 and 2011. A peer-reviewed study suggests that Indonesia's deforestation rate was as high as 2m hectares a year in 2011-12. According to a map-based study by Greenpeace, palm oil was the single biggest driver of deforestation in the country, accounting for about one quarter of forest loss overall. In Malaysian Sarawak, at least 65% of peat forest destruction has been attributed to oil palm plantations. There are no signs that this trend has stopped since.

It is time for the CBD to focus on biofuel subsidies as perverse incentives and not on the chimera of ‘effective standards’.

EU palm oil imports for biofuels, much of them from those two countries, have grown regardless - by 365% between 2006 and 2012 (accounting for 80% of the EU’s overall increase in palm oil imports), with further rises forecast.

Certification schemes and standards

Existing certification schemes and standards focus only on direct impacts, though indirect ones have been shown to often be more extensive, with increased demand for agricultural products and (in the case of solid biomass) wood driving up commodity prices and thus demand as well as land-conversion and logging rates worldwide. Yet there are good reasons why standards cannot even address direct impacts:

1. Regulatory enforcement of standards could be open to challenge under the World Trade Organisation and under bi- or multilateral trade liberalisation agreements, including ones currently being negotiated. This creates a political as well as legal bias against any enforcement. In fact, there is no evidence that EU biofuel standards have ever been enforced, or that a single consignment has been excluded from support measures;
2. All existing and proposed certification schemes and standards rely on commercial contracts between companies for enforcement. Purchasing companies and/or producers pay a consultancy firm of their choice for compliance certificates. Consultancies’ financial interests require them to provide a service attractive to oil palm, timber, energy or other companies, who will otherwise choose different certifiers. The UK’s experience with biofuel standards demonstrates what this can lead to. In 2011 and 2012, reports submitted by energy companies show a major shift from biodiesel made from virgin vegetable oils to used cooking oil (UCO), which counts double towards the mandatory blending quota. This should be welcome news but there was a problem: The amount of UCO supposedly imported from the Netherlands far exceeded potential supplies. In other words, companies’ reports were inaccurate and some of the ‘UCO’ may well have been virgin palm oil. No action was taken against companies. This scandal would not have come to light if more credible, if equally false, biofuel sources had been declared.

Alongside endless discussions about standards, tools and certificates, subsidies for biofuels worldwide continue. The IEA estimated that global biofuel subsidies were \$22 billion in 2010 alone and that they are likely to grow to \$67 billion a year by 2035. No study exists to quantify global subsidies for wood-based bioenergy but they are undoubtedly increasing fast. Clearly, it is time for the CBD to focus on biofuel subsidies as perverse incentives, not on the chimera of ‘effective standards’. CBD needs to provide guidance to international community, not waste time discussing the meaning of terms used in biofuel discussion. ❖



Sarawak,
Malaysia.

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