E C O

The Voice of the NGO Community in the International Environmental Conventions

VOLUME 21, ISSUE 2
FEB 19, 2008
AVAILABLE ON THE INTERNET AT WWW.CBDALLIANCE.ORG

Tuna Sandwiches and High Seas Donut Holes: A deadly combination…

saskia richartz - greenpeace

As you quickly eat that lunch-time sandwich in the corridor, the thought of a donut - the sweet cake with a hole in its centre - may be quite appealing...

However for the Pacific Island Countries (PICs) the mention of donut holes elicit quite a different reaction. The reason for this is that the high seas areas inbetween their national waters are referred to as donut holes. These waters, which are beyond the national jurisdiction of the PICs, are used by vessels which have been fishing illegally in their waters evade detection and arrest.

In the Pacific there are several such donut holes. Reported catches from these areas come to around 30% of the total tuna catch in the West and Central Pacific Ocean. However, inadequate reporting and pirate fishing probably means that this figure is significantly higher.

As it is, more than 90% of the tuna caught in the Pacific today is caught by fishing fleets from Japan, Korea, Taiwan, China, USA, Philippines and the EU. These fishing fleets take 900% more than locally based vessels.

Making these donut holes marine reserves would not only provide a safe haven for fish and other marine life between the EEZs of PICs. It would also yield a mixture of conservation, management and economic benefits to the region, and deny IUU fishers the loophole to disguise illegal catches taken from the EEZs. They would also complement the network of marine protected areas being set up within Pacific Island's EEZs, such as the Phoenix Islands Protected Area in Kiribati, which is the world's 3rd largest MPA.

The Pacific is at a crossroads: one path leads to sustainable and fair fisheries, a healthy marine environment and stable prosperous island communities and the other path leads to the collapse of the world's major tuna fishery and loss of livelihood and food supply for the people of the Pacific.

Today's ECO

1. *Donuts and Pacific Ocean*
2. *Techno-fixes*
3. *What's a forest / GE Trees*
4. *SBSTTA notes*

ECO and the CBD Alliance thank Swedbio, Hivos-Oxfam Novib Biodiversity Fund, and CIDA for their on-going support!

ECO is published by the NGO (non-governmental organisation) community at most Conferences of Parties to International Environmental Conventions. It is currently being published at the 13th SBSTTA to the Convention on Biological Diversity in coordinated by the CBD Alliance. The opinions, commentaries, and articles printed in ECO are the sole opinion of the individual authors or organisations, unless otherwise expressed. SUBMISSIONS: Welcome from all civil society groups. jdempsey@interchange.ubc.ca

If you didn't hear Via Campesina speak yesterday on the issue of agricultural biodiversity in plenary …oh right … there "wasn't time" to hear from what is the world's largest movement of peasants and small farmers...

To hear Via Campesina and others come to a side event TODAY: "Agricultural Biodiversity for Food Sovereignty"
Lunchtime - Canada Room, A356/7.
SPEAKERS: Via Campesina, ROPPA, CSOs

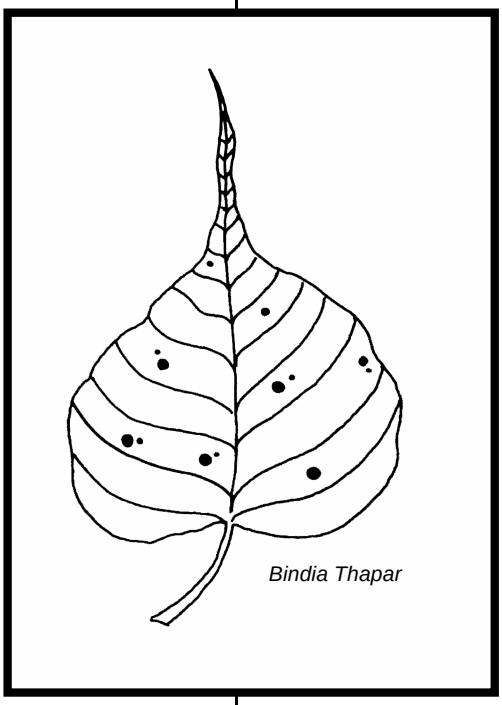
Technological-fix solutions: GE trees and Terminator

eric darier - greenpeace

In the name of environmental protection and biodiversity, technology promoters often spin their projects to attract research funding, gain endorsement or approval from governments, and to guarantee future markets for their 'products' - with the view of getting a corporation to commercialize the products. GE trees do not escape this pattern.

The dangers with this scenario is that technologies are often adopted and commercialised before independent and strict scientific evaluation can prove that it is safe. They are adopted before the international community can have a full debate and to make an informed decision about accepting (or not) this new technology. They are commercialised before international and national bodies can establish and enforce effective sets of measures to deal any of the negative impacts. Too often, the attraction of a technological-fix solution trumps the precautionary principle.

The lunchtime side-event organised by PRRI (Public Research and Regulation Initiative) yesterday was demonstrative in this regard, as representatives tried to spin many promises of biotechnology applied to trees, from insect-resistance, salinity and high temperature resistance, reduce lignite contain for pulp production, production for agrofuels, Terminator technologies, etc…



Bindia Thapar

GE trees more risks than GE crops

Trees are very different to the annual crops that have been subject to commercial genetic engineering, such as soy, rapeseed, maize, or cotton. Even GE papaya, commercialised in Hawaii, has lifespan of just a few years. Long-lived trees have significantly different survival, reproduction and adaptation strategies from short-lived food crops - they display greater functional attributes, e.g. seasonal adaptations, asexual reproduction through twigs or root suckers, and the ability to repair damage within the life-span of the individual.

Different from food crops, trees are not domesticated and hence mate more readily with wild relatives, significantly increasing the risk that new genes are transferred to wild populations. In addition, feral populations of GE trees will likely to be much more persistent than most GE annual crops, as they have not yet lost their wild survival capacities.

Biocontainment will not work

If GE trees are equipped with biocontainment genes to prevent seed production, this will pose additional environmental risks. Tree flowers (pollen) and seeds are important food sources for many wild animals and an indispensable link in forest food webs. Hence, in addition to other novel traits, GE trees with genes designed to prevent flowering or production of seeds, will have direct and potentially severe impacts on the forest ecosystem.

In practice, no sterilization technique is 100 % effective. This is especially true for GE trees because of the instability of gene expression over time and the long life-time of trees. Even a small amount of gene flow from one GE tree can have enormous consequences for the genetic make up of wild trees. Consider poplar trees that produce up to 25 million seeds annually. Even if a biocontainment strategy would work in 99.9 % of all cases this would result in the case of poplars in the production of 25,000 fertile seeds for every single tree in every single year, enough for a GE trait to escape from the target population into the wild, forever.

Experiments on GE trees have shown that expression of the inserted genes is variable and varies especially between greenhouse and field conditions. This is important because it means that experiments performed in the lab may not be good predictors of what might happen in the field, should the GE tree ever be grown outdoors. Expression of the GE genes in poplar trees can vary between different genetic constructs; between different GE plants carrying the same GE construct and between the different organs in the same plant. This variability, in combination with the environmental (e.g. drought) and biological (e.g. virus infection) stresses that trees are exposed to, means that expression of GE genes in trees is much more complex than in food crops. In both cases, "predictions" cannot be made.

What can SBSTTA do?

- Recognize that the use of any biocontainment strategy, including GURTs/ Terminator technologies will not remove the threat of genetically modified trees to forest biodiversity;
- Call on Parties to apply the precautionary approach to the use, of genetically modified trees, and recommend to the Cartagena protocol (MOP4) a moratorium on environmental releases, including field trials of genetically modified trees;
- Maintain the moratorium on all GURTs / Terminator technologies.

The importance of a CBD definition of forest

Ricardo Carrere - World Rainforest Movement

There are many scenarios where biodiversity can be either protected and enhanced or impoverished and destroyed. Some of those scenarios are physical (a forest, a wetland, a grassland) while others are conceptual. The latter are no less important than the former and can have far reaching consequences on biodiversity conservation or on its depletion.

One such example is the concept and definition of what a forest is. Policies related to forests and forest biodiversity are to a large extent based on a certain definition. At the same time, social perception about forests – particularly among urban populations- are strongly influenced by definitions supported by forestry experts.

Until now, the prevailing conceptual understanding about forests and the definitions adopted in forest-related processes – national and international – have been mostly influenced by the FAO definition, in which tree monocultures – composed of native and more frequently alien species- have been defined as "planted forests" or "forest plantations". National inventories of "forest cover" have included plantations as forests, thereby concealing the real extent of deforestation and forest degradation at the ground level. Even worse, they have paved the way for the substitution of biologically diverse forest ecosystems for biologically poor monoculture tree plantations. If both are forests, then what's the difference?

The difference between a forest and a plantation is and has always been very clear for local populations depending on forests –and particularly for indigenous forest peoples. An indigenous person from Brazil, for instance, defined eucalyptus plantations as "dead forests that kill everything" and communities in many countries define them as "green deserts". But the voices of those peoples have been ignored and their opinions disregarded as ignorance.

However, the situation has now changed. The scale of the plantation model implemented in many countries has resulted in widespread and clear impacts on biodiversity, on people and on the environment. Those impacts –on water, on soils, on biodiversity, on livelihoods- are now well documented. The result is that more and more people –including foresters and experts- are now saying that plantations are not forests and raising their concerns about their impacts.

Within this new scenario, the Convention on Biological Diversity (CBD) has a major role to play in the conceptual arena. The CBD is probably the process that is best placed to understand the differences between forests and plantations in relation to biodiversity and to agree on a new definition that clearly distinguishes biologically diverse forest ecosystems from biologically poor tree crops.

As stated in an open letter circulated by WRM and Global Forest Coalition to all members of the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA): "We sincerely hope that this issue is addressed at your upcoming meeting and that the CBD will play a leading role in the adoption of "an agreed global definition of forest , that reflects [forest] biodiversity elements."

What's wrong with CBD/SBSTTA/INF/6 on GE Trees?

global justice ecology project and friends

Civil society organizations involved in the CBD process have prepared a joint commentary in response to the SBSTTA/13/INF/6 background document and are urging for clear moratorium on the open release of GE trees. This commentary was written to highlight areas of particular relevance and to point out areas where information has not been included or considered.

Our commentary points out that section II of the INF document has crucial omissions regarding the impacts of genetic engineering processes due to a succumbing to "trait-confined" analysis.

Section II of INF/6 replicates a major fault in current risk perception and risk analysis: The prediction and analysis of impacts is limited purely to the genes and their traits that are genetically engineered into a tree (e.g. para 10, 13, 17). Such a focus fails to address the impact of the genetic engineering processes themselves on the genome of the recipient organism, such as transformation-induced mutations. It is well documented that genetic engineering processes can result in hundreds of genome-wide mutations, especially where tissue culture techniques are involved … INF/6 in its entirety fails to refer to mutations, disturbances and their consequences caused by the genetic engineering processes… [A report documenting these consequences can be found at www.econexus.info.]

The commentary also highlights a lack of breadth in analysis of INF/6. It further asks the questions:

- should we learn more about the risks and threats of GE trees by risking the very contamination that must be avoided?
- are there additional incentives for simplification and erosion of ecosystems?
- what are the additional impacts on climate change?
- what is the extent of ignorance about the risks and hazards involved?
- what time-frame is needed to test all relevant impacts?

INF/6 also insufficiently addresses cultural and socio-economic impacts. For the full commentary, go to: www.globaljusticeecology.org or look for documents on the tables outside of plenary.

Honey, I shrunk the Canadian Delegation

Civil society representatives were wondering about the size of the usually robust Canadian delegation. In particular, we noticed the absence of NGO or Indigenous representatives on the delegation. Hopefully it is an aberration, not a trend.

Uncool ideas -

Geoengineering and Ocean Fertilization

Had enough of global warming? What if someone could technologically get their hands on the thermostat of the planet to cool down the climate again? Maybe such action would allow industrial society to get on with business as usual without needing to reduce emissions. That's the thinking behind an approach to fighting climate change known as geo-engineering that proposes risky large scale technologies of environmental modification to deal with the effects of climate change. In April 2007 Richard Branson and Al Gore refuelled interest in geo-engineering with the announcement of a $25 million global science and technology prize to encourage technological solutions to greenhouse gases.

Geo-engineering proposals range from the unlikely (deploying thousands of tiny mirrors in outer space) to the wacky (wrapping the Sahara desert in white plastic) to the downright dangerous (shooting megatonnes of sulphur particles into the upper atmosphere to mimic the effect of volcanic eruptions)

Of all these approaches one in particular, ocean fertilization, is crossing from wacky idea to commercial reality. Ocean fertilization involves adding nutrients such as Iron or nitrogen to large portions of the ocean to stimulate large artificial blooms of plankton. The theory goes that such plankton blooms will gobble up carbon dioxide from the atmosphere and then transport that carbon to the ocean depths, locking it away. While several small-scale tests of the technology have led oceanographers to doubt either its safety or effectiveness, commercial companies are now proposing to carry out large scale ocean fertilisation operations in order to sell credits on emerging carbon markets.

One such company, ocean fertilization company Planktos Inc of USA, set sail last year to dump iron in seas west of the famous Galapagos Islands but ran into a storm of criticism from environmental groups, Galapagos National Park and the Ecuadorian government forcing it to change plans and eventually cease business. Another Australian company (Ocean Nourishment Corporation) intended to dump large quantities of Urea (nitrogen) in the Philippines Sulu Sea region until opposition from civil society and national environmental agency prevented it. A further commercial company (Climos Inc) may be about to also set sail.

The emergence of commercial geo-engineering has also drawn fierce criticism from international bodies. The IPCC has called such schemes speculative and unproven. The scientific groups advising the London Convention on Dumping at Sea issued a strong statement of concern about ocean fertilization in June 2007 which noted that, given the ecological risks, such operations are "not currently justified" - a statement that was echoed by the fuller London Convention who urged states to use "utmost caution" in considering any such proposal. Marine scientists fear that resulting artificial plankton blooms may lead to changes in ocean chemistry, loss of oxygen and the growth of unwelcome toxic algae. The UN General Assembly meeting to discuss the law of the sea also cautioned strongly against ocean fertilization.

This week SBSTTA 13 will also discuss ocean fertilization. Draft text in the item on climate change notes the statement of the London Convention but many civil society groups and some parties feel stronger language is urgently needed. There is no excuse to allow commercial entities to continue carrying out dangerous experiments with the marine environment. Much scientific research on the ecology of plankton blooms can be studied adequately from labwork, modelling and observation of natural blooms without putting the oceans in danger.

To help explain the science of ocean fertilization and Geo-engineering ETC Group will be holding a SIDE EVENT on TODAY at lunchtime in the Pakistan room (A-127). All are welcome.

Agricultural biodiversity

Yesterday FAO introduced the agenda item on Agricultural Biodiversity. What is needed, they said - and this was supported by many Parties - is **a paradigm shift from a chemically-based agriculture to a biologically-based agriculture** (in its widest sense to cover crops, livestock, forestry and fisheries), building on local knowledge and the engagement of local food producers, sustaining agricultural biodiversity and its associated ecosystem functions for pollination, soil health and predators of harmful insects (to name a few of many). ECO likes the sound of this… too bad some Parties are still insisting that agrofuels are somehow benign to biodiversity (hint: a country mentioned on this page).