WORLD RAINFOREST MOVEMENT

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The Bulletin aims to support and contribute to the struggle of Indigenous Peoples and traditional communities over their forests and territories. Subscription is free.

OUR VIEWPOINT

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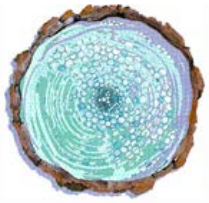
China and Malaysia: furthering plantations and GE Trees

Much of the research into genetic engineering (GE) of trees focuses on

following plantation industries' wishes, which are most interested in: trees that would grow faster, contain more cellulose, less lignin, are resistant to herbicides, insects and fungi, are resistant to droughts and low temperatures and do not flower. Trees are also being pursued for their capacity to store carbon as a supposed solution to climate change. Industries and business conglomerates are eager to expand their profits. The governments of China and Malaysia are promoting further expansion of monoculture plantations while advancing research on GE trees. This poses serious threats to the remaining forests, water sources and local territories whilst intensifying conflicts with the populations who live with and depend upon forests.



Transgenic trees and "Terminator" technology

There are many reasons why it is essential to oppose the introduction of transgenic trees, such as their impact on forests, biodiversity, lands and the people who inhabit them. One reason is that contamination with transgenic pollen from these trees is utterly uncontrollable. Although this could be used as an argument for banning them, it is now used by their promoters to push through yet another nightmare: the so-called "Terminator" technology, originally developed to create "suicide seeds."

"Transgenics are not welcome". Interview with André HI Dallagnol, of the Brazilian NGO Terra de Direitos (Land of Rights)

FuturaGene, a subsidiary of Suzano Papel e Celulose, one of Brazil's largest pulp and paper producers, has requested to the country's National Technical Commission on Biosafety (CTNBio) authorization to commercially plant a type of genetically modified eucalyptus tree named "Event H421." But on March 5, the date of the CTNBio meeting to discuss FuturaGene's request, close to one thousand women from the Landless Rural Workers Movement (Movimento dos Trabalhadores Rurais Sem Terra - MST) took over FuturaGene's facilities in the city of São Paulo where the transgenic eucalyptus variant is being tested. At the same time, 300 members of the international peasant organization Via Campesina disrupted the CTNBio meeting in Brasilia. The meeting was rescheduled for April 9 and no decision was made on the transgenic eucalyptus.

Stora Enso and GM trees: Intensifying destruction of forests and peoples

Stora-Enso, a giant Swedish-Finnish industrial forestry company and one of the largest producers of pulp and paper in the world, is anxious to forge ahead with research into genetically modified (GM) trees. The vast industrial tree plantations Stora Enso owns in Latin America and Asia have already been causing multiple violations of environmental and human rights. A survey made public in 2014 by The Forests Dialogue, a multi-stakeholder platform, revealed that the company intends to expand its production even further, likely with GM trees.

Transgenic trees in Chile: Urgent need to modify DNA of policies, not plants

Transgenic forestry in Chile is shrouded in mystery, secretiveness and corporate lobbies. While state agencies deny that transgenic trees have been released into the environment, laboratories, universities and companies devoted to forestry-related biotechnology multiply in the country, supported by public funds. Schizophrenia, a sudden scientific interest or reprehensible political irresponsibility?

Tropical Forestry Action Plan+30: The FAO and the World Bank are at the center of another false solution to the forest crisis: REDD and Climate Smart Agriculture

30 years ago, during FAO's World Forestry Congress in Mexico in June 1985, the Tropical Forestry Action Plan (TFAP) was adopted as the new international framework for forest-related action (1). In November of the same year, representatives of bilateral and multilateral donor agencies, supported by some international NGOs, also accepted the TFAP (later renamed into Tropical Forests Action Programme) as a framework for their bilateral and multilateral activities and funding related to tropical forests.

PEOPLES IN ACTION

Women peasants preventing GE trees release in Brazil!

US Greenlights First GE Tree for commercialization

Activate Resistance against Monocultures

RECOMMENDED

From Africa's Palms

The global biomass robbery

"Climate-smart agriculture", at the service of carbon finance and multinational corporations

Defending and promoting the right to Food Sovereignty around the world

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Forests are vitally important for many indigenous peoples. One leader from the Amazon rainforest said: "We have many customs, many beliefs and traditions, which are directly related to the forests, the air, water, the earth and the sun, in a very unique, cosmological spiritual relationship, very profound and respectful".

But according to FAO's one-minute promotional video for the 2015 International Day of Forests, forests are essential because "[they] are the frontline against climate change," emphasizing exclusively the capacity of forests to absorb CO_2 in the wood and soil. This focus seeks to include forests in a climate agreement to be made in Paris at the end of this year. Could the change that FAO is advocating with the International Day's theme, "Forests, Climate, Change", be to persuade everyone to share that limited vision in which forests are needed merely in order to combat the climate crisis? And, what does that mean for the peoples and communities that depend on forests?

Supposed solutions to reduce deforestation of tropical rainforests put forward in the last decades, have been characterized by narrow visions, impositions and benefits for only a few:

- Already in the 1980s, "Sustainable Forest Management" (SFM) of tropical rainforests promoted the idea that it is important to "keep forests standing" while promising benefits for local communities and forest conservation. But in practice, SFM has continued to destroy tropical forests, because instead of seeking to stop logging, it only recommends doing it "selectively". This has benefited timber companies, perpetuated forest destruction and provoked negative impacts on local communities. In fact, wood extraction and forest destruction actually increased in areas under "sustainable management" in countries like the Democratic Republic of Congo (DRC). For more information, see WRM Bulletin Issue 207.

- In 2005, the mechanism for Reducing Emissions from Deforestation and Forest Degradation (REDD) was launched, making the same promises as SFM and adding that it would also combat global warming. But again, it has not benefited communities or stop deforestation. On the contrary, local communities are blamed for deforestation and their way of life is undermined by these projects, as restrictions are imposed on their use of the forests. The beneficiaries are polluting industries that are able to buy carbon credits from these projects, which grant them the right to pollute. Meanwhile, the real causes of deforestation are not addressed by REDD or REDD+. For more information, see WRM Bulletin Issue 184.

- In 2007, large conservation NGOs in Brazil launched the idea of "zero deforestation". In the last years, this has been followed by a torrent of similar announcements from several of the companies promoting tree monocultures and which are among the main perpetrators of deforestation, such as Wilmar and Asia Pulp and Paper (APP), main drivers of deforestation in Indonesia. One of the problems is that it is a non-binding commitment, making it difficult to enforce. Wilmar alone has 800 supplier companies. Still, in 2014, the New York Declaration on

> Forests renewed the same commitment, with Wilmar and many other companies signing and promising to bring deforestation down to “zero” by 2030. The declaration also states that “forests represent one of the largest, most cost-effective climate solutions available today.”

Although the Wilmar corporation, for example, has undertaken to monitor “zero deforestation” in each of the 800 companies that supply it with palm oil (even using satellites), we need to ask which are the forests we talk about. Will they be the “High Conservation Value” forests, identified by certification schemes like the Roundtable on Sustainable Palm Oil (RSPO) (see WRM Bulletin Issue 201) as worth keeping intact? Or will they be the forests as understood by the communities, who consider all the areas they use, with more or less biodiversity, as important and therefore of “high value”? And although deforestation can be monitored by satellites, what “satellite” could monitor the countless land and labour conflicts in countries like Indonesia, which are as serious as the problem of deforestation?

What these supposed solutions to deforestation have in common is that they see forests as merely a “tree storehouse”, from which trees can be extracted, or even “sustainably” planted to provide wood or store carbon. A further problem is that FAO has shown no willingness to change its current definition of forests, which also regards them as collections of trees. As a result, FAO promotes tree monocultures as “planted forests”, to serve the furniture, pulp and paper, tire and palm oil industries, among others, as well as to act as a carbon “storage”, serving dirty industries that seek to buy a right to keep on polluting. The false concept of “planted forests” introduces a subtle, but key, change to the policy of “zero deforestation,” transforming it into “zero net deforestation.” This means that a given area of forest can be cut, so long as another “forest area”, such as a tree monoculture, is planted elsewhere. In the 2000-2010 decade alone, the area of monoculture tree plantations worldwide increased by 50 million hectares, especially in the countries of the global South.

And there is no shortage of incentives to expand these plantations still further, as with the genetic manipulation of trees like the eucalyptus. An application has recently been made for authorizing commercial plantations of genetically engineered eucalyptus in Brazil, with the aim of achieving even greater productivity or incentivizing their capacity to store carbon. But this would have major ecological impacts, denounced by one thousand women from the Via Campesina organization which occupied this month an experimental field planted with transgenic eucalyptus. In this bulletin, besides analyzing the situation in Brazil, we also reflect the expansion of transgenic trees in China, mainly with poplar monocultures, Malaysia with rubber trees and Chile with experiments on pine and eucalyptus trees. And, as for shocking anyone: even a monoculture plantation with transgenic trees is called by the FAO as a “planted forest.”

Perhaps the most serious aspect of all these proposed “solutions” to combat deforestation is that they envisage no other prospect than the continuation of the destructive model of production and consumption and the strengthening of corporate power. None of the plans put forward by FAO and other institutions considers the idea of leaving oil or minerals in the ground, producing food in each country to promote food sovereignty, or ending the extraction of tropical woods and the expansion of monoculture plantations of palm, soy, eucalyptus, etc. All these are excellent proposals to fight both climate change and deforestation.

In the current race for the last remaining fertile lands, oil reserves and mineral deposits, communities that depend on forests are liable to lose their territories, either because their lands are being destroyed by these expansions, or because the area they live in will be preserved for being an area chosen to “offset” destruction elsewhere, or because the forest is considered of “high conservation value.”

We cannot accept proposals to continue destroying forests on the pretext that they will be “offset,” even less if this was made with monocultures with transgenic tress, as that would only deepen even more the problems and impacts. The simple reason is that every area, every place, with its own specific people and community, is unique and needs to be preserved, not destroyed, and cannot be compensated for. Recognizing this has so far proved the best way to combat deforestation. This may be the most important change that FAO needs to promote.

Source: WRM information document on the occasion of FAO International Day of Forests, see: http://wrm.org.uy/books-and-briefings/united-nations-2015-international-day-of-forests-theme-forests-climate-change-what-change/

See also a short WRM video in response to the advertisement video made by the FAO for the 21st of March: http://wrm.org.uy/other-relevant-information/this-is-not-sustainable-video/

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The terms "forestry" and "forests" are so nearly identical that they can be easily confused. But their meanings are very different. According to dictionary definitions, "forestry" is "the science of planting and taking care of trees and forests", as well as "managing timber growth and yield." This shows that when speaking of forestry, the predominant view is that wood production is an important function of forests, of trees, hence the definitions talk about "planting forests" when we all know that, in reality, it is only possible to plant trees.

When the most important FAO Congress on forests concentrates its focus on forestry, it is clear how much weight this concept has within the organization. The view that a forest is basically a "big wood storage," without people, plants, insects or animals, without all those webs of life that are present in each forest. This view is also reflected in the forest definition that the FAO keeps defending: basically a collection of trees, with no mention of all the other elements that make up a forest as it is usually understood: a place of biodiversity rather than industrial monoculture, a place often regarded as "sacred" by forest-dwelling communities.

Although FAO has a "strategy" document for "forests and forestry," this document keeps guiding the work of a department called "Forestry Department" (1), another indication of FAO's priorities. Besides, this Department is advised by a relevant commission called "Advisory Committee on Paper and Wood Products", which meets once a year with the main goal of offering guidance to the work of the Forestry Department's activities and programmes on relevant issues to the paper and forest products industry. (2)

The Finnish Tiina Vähänen, the World Forestry Congress Deputy Secretary-General, said: "When the world's foresters and forest supporters come together for the XIV World Forestry Congress in Durban in September, they will have a unique opportunity to highlight the urgent need to give forests credit for the true value they provide." (3) This is indeed a fundamental issue requiring serious reflection on the part of FAO. Why?

Since FAO was founded in 1945, it dedicated to the following objectives: eradicating hunger and poverty. To do this, it invested in programmes which in its vision intended to develop food production within nations in order to guarantee food security for their populations. Based on its definition of forests, in which forests can be "planted," FAO promoted the expansion of large-scale monocultures of trees like eucalyptus, pine, acacia, rubbertree, etc. Including oil palm plantations, which share many features with these tree monocultures, tens of millions of hectares of monocultures have been planted in countries of the global South over the past 20-30 years, particularly in Latin America and Asia.

Without exception, these plantation projects were imposed on local populations and presented as programmes that would "develop" the region and would "fight" poverty. Today, we find that in the regions where the large-scale tree plantation monocultures are concentrated, the local populations are poorer than they were before. Many people have been evicted from their homes and territories, besides the losses incurred through the destruction of forests. A large number of studies already show that large-scale tree plantations increase the ravages of hunger and poverty instead of eradicating them (4).

It is symbolic that this year's World Forestry Congress is being held in Africa. According to consulting firm Pöyry, also Finnish as Ms. Vahanen: "There is growing interest in Africa as a destination for forest investors, drawn by the availability of land, competitive rates of tree growth, and low labour costs." (5) In fact, the African continent is facing an invasion of companies and investment funds that are appropriating land to promote African palm plantations, especially in West and Central Africa, and

eucalyptus, rubbertree and pine plantations, mainly in the east and south of the continent. The negative impacts in Africa may be even more devastating than in other global regions due to the importance of the land for food production for its people, a majority of whom are rural dwellers. When small food farms are replaced by tree monocultures, as is happening in several countries, poverty and hunger follow in their footsteps. Many people lose their source of food supply when forests are lost in order to make room for “planted forests”, together with other highly biodiverse areas such as native pastures and savannas, of great value to the communities.

Africa has also become a favorite place for tree plantations for carbon “storage” under the Reducing Emissions from Deforestation and Forest Degradation (REDD) mechanism. (6) Coincidentally or not, Ms. Vähänen formerly coordinated REDD promotion work within FAO. We suspect that when she says it is time to highlight forests and “the true value they provide”, she is first thinking of the economic value of the carbon stored in forests, when it is traded to “offset” the polluters’ emissions, mainly from industrialized countries. In any case, the fact that this year the Congress is being held in Africa provides an excellent opportunity for FAO to learn, from African people who depend on forests for their livelihood, how they view “the true value forests provide.”

In this regard, Ms. Vähänen said: “We are working to ensure that the voices of young people, women and local communities will be heard”. (7) It remains to be seen whether this will really occur in a truly meaningful way, and whether FAO and its officials will really open their ears to hear the voices of African young people, women and local communities who depend on the forests for survival. These are the people who have protected the forests from the threats posed by FAO’s own policies, such as promoting tree monocultures. If FAO does not listen to these communities in a real and meaningful way, the organization will probably continue to be “prey” to the interests of large timber companies and others interested in promoting tree monocultures, principally in countries of the global North, including Finland.

Winnie Overbeek (email: winnie@wrm.org.uy)
International Secretariat of the World Rainforest Movement (WRM)

(1) http://www.fao.org/docrep/012/al043e/al043e00.pdf
(2) http://wrm.org.uy/browse-by-subject/tree-plantations/forest-definition/
(3) http://forestry.fao.msgfocus.com/files/amf_fao/project_59/February_2015/WFC_InFO_News.pdf
(4) http://wrm.org.uy/books-and-briefings/an-overview-of-industrial-tree-plantations-in-the-global-south-conflicts-trends-and-resistance-struggles/
(5) http://www.poyry.com/sites/default/files/africanplantationforestry_-_june2011-lfwp-br.pdf
(6) See the WRM publication “REDD: a Collection of Conflicts, Contradictions and Lies,” at: http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/
(7) See reference (3)

China and Malaysia: furthering plantations and GE Trees

Much of the research into genetic engineering (GE) of trees focuses on following plantation industries’ wishes, which are most interested in: trees that would grow faster, contain more cellulose, less lignin, are resistant to herbicides, insects and fungi, are resistant to droughts and low temperatures and do not flower. Trees are also being pursued for their capacity to store carbon as a supposed solution to climate change. Industries and business conglomerates are eager to expand their profits (1). The governments of China and Malaysia are promoting further expansion of monoculture plantations while advancing research on GE trees. This poses serious threats to the remaining forests, water sources and local territories whilst intensifying conflicts with the populations who live with and depend upon forests.

China: GE trees crossing the wall

China is the only country in the world to have approved and released commercial plantations of GE trees and the country with the second highest number of field experiments worldwide, after the US. During the last decade, over one million insect resistant GE poplars have been planted in China. Genes from the GE poplars have already appeared in natural varieties growing nearby, and new insect pests have emerged that were previously unknown in non-genetically engineered poplar trees (2). In 2008, GE poplars engineered to tolerate saline soils were planted (3).

Meanwhile, China also has the world's largest tree-planting project, with 66 billion trees planted since 1978. The "Three North Shelterbelt Project" or as it is commonly called the "Great Green Wall" is intended to stretch 4,500 kilometres along the edges of China's northern deserts by 2050, covering 405 million hectares (42% of its territory), in an attempt to counter the effects of its past mass deforestation (4). Most of the planted area is and will continue to be monoculture tree plantations, including plantations of GE trees (5).

The disturbing impacts of such large project are starting to show. In arid areas, tree plantations can aggravate desertification by depleting groundwater and killing grasses that hold the soil. Zhao Wenju, a farmer from the Zhangjia village, which is close to Beijing, says that a well that hit water at 9 meters below ground a decade ago now needs to extent to 60 meters below ground to draw water. Hou Yuanzhao of the Chinese Academy of Forestry worries that dying poplars in this area, which is less dry than many others covered by the project, are the start of a widespread withering of the planted trees (6).

No one knows the exact area planted with GE trees in China. No records are known to be kept on where the GE trees are planted or how many have been planted. "It is very difficult to trace them," commented Wang Lida, from the Chinese Academy of Forestry. Poplar trees can be very easily propagated and GE trees are moved from one nursery to another. But besides poplar, research is also being undertaken to develop GE eucalyptus and rubber trees.

Malaysia: GE rubber trees as "living factories"

Malaysia is the world's sixth largest producer of natural rubber. The US, Germany and Japan are the largest markets for Malaysian rubber products, with the UK, China and Australia also being important buyers. Manufacturers comprise multinationals and joint ventures from various countries including the US, Europe and Japan, as well as locally-owned enterprises (7). While Malaysian states have jurisdiction and controls over land and forests, forest communities and indigenous peoples have their territories largely unrecognized (8).

The Malaysian Rubber Board is the custodian of the rubber industry in Malaysia and has the Rubber Research Institute of Malaysia (RRIM) under its administration, which is in charge of the research work on natural rubber. In 2014, the RRIM submitted an application seeking approval for conducting "confined" field trials of GE rubber trees in Penawar, Kota Tinggi in the state of Johor, to produce specific proteins in the latex for pharmaceutical use. According to the rubber industry, the potential of rubber trees is not only for producing rubber products and rubberwood, but also for sequestering carbon from the atmosphere. And for this, "transgenic rubber plants could serve as efficient, low cost, low maintenance and environment-friendly production lines for the production of the targeted protein" (9)

A press release from the Consumers' Association of Penang and Sahabat Alam (Friends of the Earth, Malaysia), of February 2015, however, voiced strong opposition to the growing of GE trees in Malaysia (10). "What assurances are there that the transgenes will not spread in the environment?", enquire the concerned groups. And continue, "given their perennial growth and, in many cases, long lifespan and large size, GM trees may develop complex and multi-level ecological interactions with other organisms. The interaction of these trees with the environment can thus result in long-term impacts on soil, food webs and forest ecosystems, which need to be evaluated".

Malaysia is a party to the Convention on Biological Diversity, which has called for a precautionary approach to GE trees. This means not growing or field-testing such trees before ascertaining the real potential long-term impacts of GE trees on forests and the livelihoods of indigenous and local communities. Yet, the press release emphasizes that "it is not even clear if such field trials have already been conducted in Malaysia without public knowledge and in contravention of the law". The RRIM application does not even address the possible negative environmental impacts, and therefore, they conclude that "in view of the scientific gaps and lack of certainty there cannot be any planting of GM rubber trees in Malaysia, whether for field trials or commercial reasons".

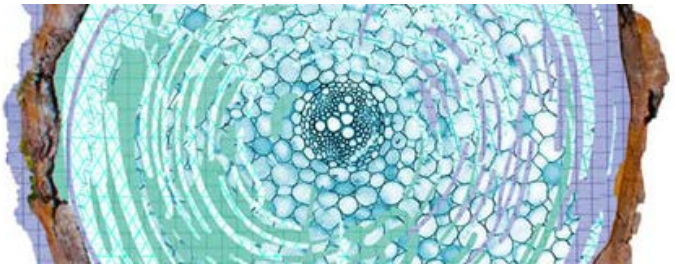
Meanwhile, the government of Malaysia is advancing the expansion of tree plantations with a legal framework that classifies single-species monocultures as forests. Much of the remaining forests in Peninsular Malaysia are classified as "Permanent Reserved Forests" (PRFs), which are available for "selective" logging. However, a loophole in the law is allowing the conversion of these areas into monoculture rubber plantations. Rubber tree plantations are thus expanding in the country. "Under the [Forestry] Act, most PRF are classified as 'timber production forest' under 'sustained yield'. This can be interpreted to mean that a forest that is clear-felled and then replanted with rubber trees, will provide 'sustained yield', thereby justifying the conversion into plantations," says forestry researcher Lim Teck

Wyn (11).

Engineering profits: a win-win research plan?

Research groups focused on advancing GE trees generally claim that by engineering trees they will 'improve' them. However, what they are really doing is improving the profits of those industries benefiting the most from GE trees. That means that by changing certain genetic attributes of the trees to better serve the interests of those who are financing this research -particularly large tree plantation companies –, it increases the profitability of the businesses involved. A GE herbicide-resistant tree, for example, is not 'improving' anything – rather quite the opposite. This modified tree permits extensive application of herbicides, and as a result, this will damage the soil, destroy local flora, poison fauna, pollute water and severely impact local populations' health and livelihoods. As communities' territories are kept largely unrecognized and forests are cleared, communities are confined to reduced areas, threatening their food sovereignty, livelihoods and cultures.

(1) See further information on GE trees here: http://wrm.org.uy/bulletins/issue-206/
(2) See WRM briefing "GE Tree Research: A country by country overview", http://wrm.org.uy/wp-content/uploads/2008/11/GE_Trees_Briefing_updated_2014.pdf
(3) http://www.futuragene.com/en/press_24_02_2012/GM-TREE-PLANTATION-RESEARCH-FACT-SHEET.pdf
(4) http://www.economist.com/news/international/21613334-vast-tree-planting-arid-regions-failing-halt-deserts-march-great-green-wall
(5) http://www.i-sis.org.uk/GMTGL.php
(6) Reference (4)
(7) http://www.mrepc.com/industry/industry.php
(8) See: Forest Peoples Programme report "Deforestation Drivers and Human Rights in Malaysia: a national overview and two sub-regional cases", http://www.forestpeoples.org/sites/fpp/files/private/publication/2014/12/deforestation-drivers-and-human-rights-malaysia.pdf.
(9) http://www.lgm.gov.my/GreenMaterial/TheMalaysianNRIndustry.pdf
(10) http://www.consumer.org.my/index.php/development/environment/829-gm-rubber-trees-in-malaysia-jumping-off-without-a-safety-net
(11) http://says.com/my/news/there-is-an-unspoken-loophole-sacrificing-our-protected-forests-for-rubber-plantations



Transgenic trees and Terminator technology

There are many reasons why it is essential to oppose the introduction of transgenic trees, such as their impact on forests, biodiversity, lands and the people who inhabit them. One reason is that contamination with transgenic pollen from these trees is utterly uncontrollable. Although this could be used as an argument for banning them, it is now used by their promoters to push through yet another nightmare: the so-called Terminator technology, originally developed to create "suicide seeds."

Pollen contamination from transgenic agricultural crops, which are planted and harvested on a seasonal basis, has become a serious problem worldwide with wide-ranging consequences, from biological and ecosystem impacts to economic, social and cultural disruption. Even more harmful are its impacts on crops in their centres of origin and diversification, as is happening today with maize and rice.

This type of contamination can cause, for instance, serious malformations in maize plants which reject the alien transgenic material. Moreover, transgenic contamination involving patented genes (1) has sparked hundreds of lawsuits against the victims, who are being sued by the transnationals for "wrongful use" of their patented materials. These are just a few of the many problems associated with transgenic contamination, and there is irrefutable proof that it is in practice impossible to contain.

Commercial sowing of transgenic crops is only permitted in 27 countries and 98% of these crops are concentrated in no more than 10 countries. Yet, around 400 cases of transgenic contamination have been found in more than 60 countries (2). This demonstrates that contamination — whether by wind-blown pollen, insects or other means including shipping and marketing — is inherent in all transgenic varieties, which escape from authorized plantation fields and spread across national borders.

If this is the case with seasonal crops, which are harvested and removed each year, imagine what will happen with the pollen from transgenic trees, which shed pollen for decades that is capable of drifting for many kilometres.

Because of the long life of transgenic trees and the large areas their pollen can contaminate, the effects on forests, biodiversity and the interactions with cultivated and natural species are unpredictable. There are no analytical methods that can forecast the dynamic factors in play and the continuous natural – or

non-natural – transformation of ecosystems.

This should be an irrefutable reason for banning transgenic trees, as nature would be intentionally exposed to a self-replicating time bomb, impossible to track, let alone defuse.

"Terminator": Seeds without a future

Paradoxically and cynically, instead of supporting a ban on transgenic trees, the serious implications of transgenic contamination are used by advocates of the technology in Brazil as an argument to press for legalization of yet another dangerous technology, the so-called Terminator technology, which creates "suicide seeds" that grow and yield fruit, and then become sterile.

This transgenic technology – known at the United Nations as Genetic Use Restriction Technology (GURT) – was originally designed by the United States Department of Agriculture (USDA) and the company Delta & Pine, owned by Monsanto Corporation, to prevent farmers from sowing seeds recovered from their own harvests.

Terminator is the "dream" of all agribusiness transnationals because it means farmers are forced to buy new seeds every year. Those who currently buy hybrid seeds, in many cases are already buying them every season, but many other family and peasant farmers cross-breed hybrid seeds with their own native seeds and create new, fertile varieties. With Terminator, there would be no option: they would have to buy new seed every year and in this way they would become completely dependent on the companies.

Not only Monsanto but also Syngenta and other companies that control the global agricultural transgenic market hold patents on this deadly technology. However, they have not been able to implement it. In 2000, the UN Convention on Biological Diversity (CBD) established an international moratorium on experimentation, sowing and release of Terminator seeds because of the potential impacts on biodiversity and food security.

Brazil turned the UN moratorium into its national laws, and its current biosafety law bans the use of this technology. But Brazil is the world's second producer of transgenic seeds and a country where transnational agribusiness companies lobby in various ways for permission to use technologies, seeds and inputs that are banned in other nations. For years, there has been a campaign to reverse the ban on Terminator. It was Brazil's Agriculture minister Kátia Abreu, a known defender of large estate owners and agribusinesses, who, as a member of Congress, put forward the first draft law to legalize this technology in Brazil.

If Brazil were to lift the ban on Terminator it would be a de facto violation of the United Nations' international moratorium, and this would have a strong negative impact on other countries whose governments might see it as an example to follow. There would be a domino effect which would open a Pandora's box, releasing hazardous plants and technologies. Similar consequences would happen if the first application in Latin America for commercial release of transgenic eucalyptus trees, now being discussed by the National Technical Commission on Biosafety (CTNBio) in Brazil, would be approved.

Terminator technology is a genetic chain reaction designed to be activated by a chemical inducer, but it can also be activated by environmental stress factors. The technology is complex and unproven. Scientific studies presented to the CBD showed that in a significant proportion of plants, the inserted genes are not functional, that is, they remain "silenced". However, contamination with "silenced" Terminator pollen will occur anyway. Worse still, these "silenced" genes may not activate the sterilization mechanism until it is triggered by an external chemical or environmental factor. Thus the "silenced" genes continue to be transmitted until sterilization is activated at an unknown time in the future.

In spite of industry propaganda, Terminator will not solve the problem of transgenic contamination in crops, trees or any other organisms. On the contrary, because of their vast and uncontrollable social, economic and environmental impacts, transgenic trees and Terminator are two proposals useful only for increasing corporate profit, to the detriment of local communities and biodiversity. They should be banned.

The protest action in March 2015 by hundreds of women from Brazil's Landless Workers Movement (MST) and La Via Campesina, together with international campaigns (3), managed to block approval of the first commercial release of transgenic eucalyptus trees in Latin America. We need to continue and increase resistance, with solidarity from all parts of the world.

For more information about transgenic trees, see: wrm.org.uy and stopgetrees.org
For more information about Terminator technology, see: www.etcgroup.org

Silvia Ribeiro, silvia@etcgroup.org
Grupo ETC, www.etcgroup.org/es

(1) Patents on genes and genetic constructs – the vast majority owned by biotech and agrochemical companies – grant exclusive industrial property rights over the genes used in transgenic organisms. Ten multinationals control 76% of the world seed market. Most of the genetic resources found in the countries of the global South are already gathered into gene banks and botanical gardens in the countries of the North.
(2) GeneWatch and Greenpeace, 2014, http://www.gmcontaminationregister.org/
(3) See: stopgetrees.org

“Transgenics are not welcome”. Interview with André Hl Dallagnol of the Brazilian NGO Terra de Direitos (Land of Rights)

FuturaGene, a subsidiary of Suzano Papel e Celulose, one of Brazil’s largest pulp and paper producers, has requested to the country’s National Technical Commission on Biosafety (CTNBio) authorization to commercially plant a type of genetically modified eucalyptus tree named “Event H421.” But on March 5, the date of the CTNBio meeting to discuss FuturaGene’s request, close to one thousand women from the Landless Rural Workers Movement (Movimento dos Trabalhadores Rurais Sem Terra - MST) took over FuturaGene’s facilities in the city of São Paulo where the transgenic eucalyptus variant is being tested. At the same time, 300 members of the international peasant organization Via Campesina disrupted the CTNBio meeting in Brasilia. The meeting was rescheduled for April 9 and no decision was made on the transgenic eucalyptus.

As someone who was present at the CTNBio meeting during the actions, could you tell us how was that moment of resistance?

In my view, it was a historic moment. Representatives of civil society were finally able to tell the scientists and present corporations that transgenics are not welcome, and that the purely technical discourse will not be tolerated any longer as it does not take into account these technologies’ social and economic impacts on society, like the effects of transgenic eucalyptus on bee-keeping.

Why do you think Brazilian peasant movements place such emphasis on the need to prevent the release of transgenic eucalyptus?

I think it is a natural reaction to the constant stream of approvals for commercial release of genetically modified organisms using criteria that do not adequately reflect the risks associated with the technology. To give you an idea, earlier on the same day two GM varieties of maize and soya tolerant to 2,4-D (an ingredient in the chemical weapon Agent Orange) and another “stacked” transgenic, combining two different genetic alterations in the same seed, were approved.

Eucalyptus is an exotic (non-native) species in Brazil and is frowned on by peasant farmers and traditional peoples and communities. Even non GM varieties of eucalyptus take an environmental toll, especially due to their high water consumption which can dehydrate the soil. (There are cases of entire communities being surrounded with intensive monocultures of eucalyptus, described as “green deserts,” where water resources have been completely depleted). Fast-growing transgenic eucalyptus is even worse in this respect. Aerial spraying of toxic agrochemicals is used intensively on large-scale plantations, again affecting nearby communities.

What arguments does FuturaGene (Suzano) put forward in favour of the commercial release of transgenic trees? Why do you think FuturaGene is making its application in Brazil?

Their major argument is that the transgenic variety grows faster than non transgenic eucalyptus; the time between planting and harvesting is reduced by 20%, theoretically giving more productivity per unit area. This is a purely economic argument.

Other people argue that the new variety is more “ecologically sound”, but this is a fallacy. In the first years of growth, the trees consume most water. So in practice, for the last two years before they are harvested, the eucalyptus trees may act as ground cover while the land essentially lies fallow.

GM technology is experimental and there is no certainty about its safety. And, as it happened with the approval of the first transgenic mosquito, a trend to find countries with less rigid safety standards is percived.

Due to legal loopholes in the national Biosafety Law and the blind eye turned by the majority of scientists who sit on CTNBio, Brazil is an excellent prospective guinea pig for commercial releases on that level.

Would CTNBio be breaking any Brazilian laws or international agreements if it approved FuturaGene’s application?

Brazilian law has important loopholes for commercial approvals; such as the social and economic impact assessments that are only presented to a sort of “second tier” of CTNBio, the National Biosafety Council (CNBS), which has only met twice since CTNBio was created in 2005. This makes possible the commercial approval without any social and environmental impact assessments. Moreover, under national legislation, CTNBio ended up taking the power of environmental authorities related to absolving environmental impact assessments that used to be reserved to the.

Furthermore, the studies are always conducted by the companies involved. Independent studies are invariably disregarded by most of the scientists on CTNBio.

At present there is a partial international moratorium on releasing transgenic tree varieties. I say “partial” moratorium because it makes approval of commercial release conditional on conducting studies - already completed - even when these studies are done by the same companies who are interested in planting the GM trees, and lack data about the risks to human and animal health and to the environment, as well as social and economic impact analysis.

Are there legal means to oppose this? Is it possible within the Brazilian justice system to stop the commercial release of GM trees?

We think it is possible to have recourse to the justice system to try to stop commercial release of GM eucalyptus; however, judges are extremely cautious when scientific matters are involved. They don't feel qualified to "interfere" with scientific decisions, and they are often unaware of the fact that science is not impartial but is allied to economic interests, as in this case.

Fighting GM trees through legal avenues has to be done by the book, by disputing formal aspects of the commercial release process, such as an express breach of national or international regulations.

What companies or corporate groups are lobbying CTNBio for approval of GM trees? Are you aware of any other companies that have already requested CTNBio's approval for commercial release of transgenic tree varieties?

I think that this project is of interest to more than a single company like FuturaGene; in fact, if authorized the process would "open the floodgates" to a whole new generation of GM trees. But I am not aware of any other current commercial release applications.

What are the main risks if FuturaGene releases GM trees commercially in Brazil? What potential impacts are social movements concerned about?

Apart from setting a global historical precedent for approval of transgenic trees, a major problem is that research indicates the potential for genetic contamination of other (non GM) eucalyptus trees, and more alarmingly yet, of honey production.

Eucalyptus trees are one of the main pollen sources for bees and so have an important role in honey production. There are no conclusive studies about the possible harmful effects on the health of bees or of consumers exposed to honey containing transgenic eucalyptus pollen.

Native (non GM) varieties of eucalyptus are known to impoverish the soil, deplete water resources and drive away local wildlife. Further potential impacts are associated with their high water consumption, while there is an unprecedented ongoing water crisis in several Brazilian cities. There are also hazards associated with intensive use of toxic agrochemicals on eucalyptus plantations.

What are your expectations for the next CNTBio meeting, scheduled for April 9?

It is too early to say. What we know is that security will be stepped up and social participation will be more restricted than it was at the last meeting.

Social movements succeeded in getting the message across that they will not tolerate GM trees, and it is possible that they will invoke legal mechanisms to prevent the approval of commercial release.

André Hl Dallagnol andrehld@terradedireitos.org.br
Legal Adviser, Terra de Direitos, Brasil

Stora Enso and GM trees: Intensifying destruction of forests and peoples

Stora-Enso, a giant Swedish-Finnish industrial forestry company and one of the largest producers of pulp and paper in the world, is anxious to forge ahead with research into genetically modified (GM) trees. The vast industrial tree plantations Stora Enso owns in Latin America and Asia have already been causing multiple violations of environmental and human rights (1). A survey made public in 2014 by The Forests Dialogue, a multi-stakeholder platform, revealed that the company intends to expand its production even further, likely with GM trees (2).

Expansion of its tree plantations, which already cover hundreds of thousands of hectares across the world, is the driver of Stora Enso's business. The company is building a new pulp and paper plant and a cardboard factory in China, which will be supplied by approximately 90,000 hectares of tree plantations. The company also owns operations in India, Korea, Laos and Pakistan. In Uruguay, the "Montes del Plata" pulp and paper company owned by Stora Enso and the Chilean firm Arauco are supplied by 190,000 hectares of tree plantations. In Brazil, Stora Enso and the Brazilian company Fibria own Veracel Celulose, which holds 211,000 hectares, 90,000 hectares of which are planted with eucalyptus. It also owns 43,000 hectares in the state of Rio Grande do Sul, about half of which are covered with eucalyptus (3). According to its reply to The Forest Dialogue's questionnaire, the company expects to develop field trials of GM trees in Brazil.

With the objective to keep developing new products and services based on wood (4), Stora Enso is seeking technologies to intensify production. Although it is not known to have GM tree plantations as yet, the company clearly intends to go down this path in spite of the environmental and social hazards involved.

In its response to The Forest Dialogue questionnaire, Stora Enso admitted that GM trees could spread just like any other "improved" specie emerging from its breeding programs or their hybrids. The company even remarked that it sees no difference between possible GM trees and "other clones emerging from our breeding program," which indicates that the company refuses to acknowledge the risks associated with GM tree propagation. These risks include the genetic contamination of habitats which could seriously affect biodiversity. Besides, as they grow faster, they consume more water, causing more wells and springs to dry up. Local populations would be exposed not only to the hazardous agrochemicals used on the plantations, but also to inhaling pollen containing transgenic Bt toxin, introduced to produce deathly proteins for insects (6).

Similarly, Stora Enso continued saying that: "We do not see any social impacts, positive or negative, which could be attributed to genetic engineering technology per se." And it went on to say: "From a social point of view, we think that GM trees are no different than other plantation[s] emerging from the breeding program." No social impact at all?

Industrial plantations, with or without GM trees, occupy vast areas of land and forests, contaminate soils and water sources and, directly or indirectly, worsen the displacement of more communities from their territories, destroying local livelihoods and food sovereignty. In saying that they don't see

“any social impacts at all”, Stora Enso is ignoring complaints against it, such as one lodged before the UN Human Rights Council in 2013 for environmental and human rights violations in its eucalyptus plantations and planned cardboard factory in China (7).

Intensifying land use: What for?

One of Stora Enso’s main arguments for pushing ahead research of GM trees is to intensify production as, according to the company, “intensification of production of food, fibre and fuels is necessary to meet the needs of the growing world population.” As an example, the company provided a link to a video about its plantations in the Brazilian state of Bahia, where it claimed “intensive wood production in tree plantations has stabilized land use and enabled restoration of native forests.”

The video titled “Stora Enso is saving rainforest” (8), tells the story of how the establishment of eucalyptus plantations alongside areas set aside for land recovery led to increased biodiversity. What the video does not tell is that since the initial years of operations, its local subsidiary Veracel caused a great deal of deforestation with its tractors and bulldozers. So much so that a historic verdict by a federal court on June 17, 2008, obliged Veracel to replant native trees on all the areas for which eucalyptus planting licences were issued between 1993 and 1996, and to pay a fine of more than 12 million dollars (9). But eucalyptus plantations keep on spreading, and so do complaints by local communities due to the occupation of inhabited lands and devastating native forests, who have joined together in the Social and Environmental Forum of the Extreme South of Bahia and the Alert Network Against the Green Desert (10).

“Every year we plant 400 hectares of rainforest,” says Eliane Anjos, Veracel’s sustainability manager, on the video. She adds that the company has trained local populations on how to relate with forests and to manage native seeds. Besides that Ms. Anjos should be made aware that the planted area with eucalyptus plantations is way larger than that – at least 10 thousand hectares per year – and that plantations are not forests; the reality is that Veracel’s plantations are encroaching on the traditional lands of the Pataxó indigenous people, who have denounced that the company has occupied roughly 30,000 hectares of their territory (11). How can a company having such serious negative impacts on forests and local communities claim to be “saving the rainforest”? Shouldn’t the company be listening to local peoples and learning the real meaning of the rainforest and biodiversity from them?

“Intensifying land use,” that is, the idea of producing more wood per hectare, would seem to be a convincing argument for relieving pressure on rainforests. But in that case, why, despite the already intensification of wood production in the last decades in countries like Brazil, have monoculture tree plantations continued to grow exponentially?

Expansion of industrial tree plantations goes hand in hand with increasing demand for wood products, especially in countries of the global North, whether for pulp and paper, fibre, fuel, carbon “storage” or other purposes. As demand for wood increases, so does pressure on rainforests and land. Genetic modification of trees in order to obtain faster growth, increased resistance to chemicals and insects and frost tolerance supports companies’ profits and, therefore, the expansion of plantations. Commercial release of GM trees would cause loss of biodiversity and fresh water, soil desertification and serious effects on human health, all of which directly or indirectly cause the degradation and collapse of rainforest and native grassland ecosystems.

(1)http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/stora-ensos-propaganda-campaign-in-laos/
(2)http://theforestsdialogue.org/publication/company-responses-questionnaire-development-genetically-modified-trees
(3) http://www.storaenso.com/About-Site/Pages/Stora-Enso-in-brief.aspx
(4) Ver referencia (3)
(5)http://assets.storaenso.com/se/com/DownloadCenterDocuments/Policies_Wood_and_Fibre_Sourcing_and_Land_Management_2012_english.pdf
(6)For more information, see: http://wrm.org.uy/books-and-briefings/genetically-modified-trees-the-ultimate-threat-to-forests/
(7)http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/ngos-filed-a-complaint-to-united-nations-against-stora-ensos-human-rights-violations-in-china/
(8)http://www.youtube.com/watch?v=iwrV_yQ46Q0&list=FL3WUNpTDWw42Yms2lemkaNA&index=3
(9) http://www.wrm.org.uy/oldsite/bulletin/132/viewpoint.html
(10)http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/brazil-occupation-of-veracels-tree-plantations-calls-upon-land-reform/
(11)http://wrm.org.uy/articles-from-the-wrm-bulletin/section2/brazil-veracel-plantations-certified-land-seizure/

Transgenic trees in Chile: Urgent need to modify DNA of policies, not plants

Transgenic forestry in Chile is shrouded in mystery, secretiveness and corporate lobbies. While state agencies deny that transgenic trees have been released into the environment, laboratories, universities and companies devoted to forestry-related biotechnology multiply in the country, supported by public funds. Schizophrenia, a sudden scientific interest or reprehensible political irresponsibility?

In September 2014, the Latin American Observatory of Environmental Conflicts (OLCA) requested detailed information from the Chilean Agricultural and Livestock Service (SAG) about the existence of transgenic tree plantations, their location, ownership and area in hectares. SAG replied that since 2000 there exists a “Norm for the confinement and introduction to the environment of live modified plant organisms capable of propagation”, which only allow entry of transgenic species into the country, but not their release into the environment. Therefore, SAG said that it cannot authorize plantations in open fields, and so it has no data to report. However, it said that it does have records of authorizations for experimentations, and that they have granted two prior to 2000. One in 1996, which implied the confinement of 240 transgenic seedlings resistant to glyphosate for experimental use in Los Ángeles, in southern Chile, under the name of “Forestal y Agrícola Monte Águila”, a subsidiary of Chilean forestry giant CMPC. And the other, in 2000, was granted to “Fundación Chile”, a corporation that has the Chilean government and the Anglo-Australian mining company BHP Billiton as partners, for radiata pine trees resistant to shoot moth, with seedlings imported from New Zealand.

Because of the regulatory loopholes and lack of access to information, concern has arisen over the fate of those GM trees, which should have been destroyed after research was completed. Even though experiments with transgenic trees have been authorized, their release into the environment was not. Therefore, there is no applicable liability or monitoring of the experiments that can effectively control those doing the experiments.

It is surprising that there were not more records of confinements, given that forestry biotechnology is such a hot topic. We discovered a well-articulated network of major transgenics firms, big forestry groups and universities, working together not to confine anymore – and in that way avoid registration and other things – but to produce directly their own seeds. Based on a study of biotechnology research for producing transgenics in Chile (1), the Department of Molecular Genetics and Microbiology of the Pontifical Catholic University of Chile created the first transgenic pine embryos using Agrobacterium tumefaciens, a bacterium which has the property of transmitting DNA from one plant to another by a process known as transformation or transfection, which biotechnologists have studied intensively in recent years. This was the second in the world, after New Zealand. Likewise, the Universidad Austral de Chile and Fundación Chile have also been working for years on transgenic pine trees resistant to pine shoot moth. Moreover, the Universidad de la Frontera and the Vitrogen company are developing transgenic eucalyptus trees that are tolerant to frost and resistant to fungi that cause defoliation.

Fundación Chile has founded several companies to carry out transgenic tree research: Genfor, Neosylva, Genómica Forestal and Biogenetic. Genfor develops and supplies “improved forestry genetic material” and its head of operations also works for agribusiness transnational Syngenta. Neosylva has a license to sell its elite clones of radiata pine trees to forestry companies Arauco and Mininco, and has support from the Cooperative for Genetic Improvement of New Zealand. It has a tree nursery in Villa Santa Fe, in Los Ángeles, and its tissue culture and molecular analysis laboratories and greenhouses are in Valdivia.

Genómica Forestal was launched by forestry companies Mininco and Arauco, Universidad de Concepción, CEFOR (subsidiary of Universidad Austral) and Fundación Chile. In 2012, the consortium received funds from the “Innova BioBio Fund” from CORFO (state research funding) and it is mounting a business platform for its biotechnology products, according to official reports from CORFO.

Lucía Sepúlveda, spokesperson for the “I do not want Transgenics in Chile” network, said that after 2000, state funding was used as an incentive for several transgenic forestry projects. These include experiments with eucalyptus varieties with insecticide properties, tolerant to defoliant fungi (developed between 2002 and 2005 by the Universidad de la Frontera), and frost-tolerant eucalyptus experiments (developed between 2004 and 2007 by the Universidad de Concepción and Universidad Andrés Bello for Cellulose Arauco). But when SAG was asked about the results of these projects, it said that since no seedlings had been released and the experiments had been carried out in contained premises, according to the companies, no monitoring had been needed or carried out.

In other words, the state exercises no monitoring of the research on transgenic trees that it funds, and on the contrary, promotes a forestry model that is increasingly called into question in terms of its social and environmental impacts, incorporating the transgenics, which are overwhelmingly rejected by citizens. Networks and organizations that oppose and resist transgenic initiatives are growing in number by the day. They carry out information campaigns, collect scientific and technical information, lodge complaints and lawsuits, speak up on their views to the authorities, go onto the streets to demand a ban, and also with the simple and wise act of meeting regularly to exchange seeds that will keep the millenary legacy over the territories.

In fact, the regions where monoculture tree plantations have expanded the most, essentially on territories grabbed from the Mapuche indigenous people, have also the highest poverty rates in the country. The plantations have generated a water crisis in the centre-south of the country that is unprecedented in national history, and all the indicators point to alarming desertification and ecosystem vulnerability. A clear sign of this are the forest mega-fires which happen every summer since at least a decade, because of the combustible nature of pine and eucalyptus trees, loss of moisture and impoverished soils.

To make matters worse, the transgenics companies are subservient to transnational interests. Out of 3 million hectares of monoculture tree plantations in the country, 70% are owned by the CMPC conglomerate (in the hands of the Matte family) and Arauco (owned by the Angelini family). These are two of the foremost economic groups in Chile, and they are expanding rapidly in Peru, Argentina, Brazil and Uruguay. The situation is clear, in spite of all the secretiveness: they are experimenting with the common heritage, entirely for private profit.

Latin American Observatory of Environmental Conflicts (OLCA) Team
http://www.olca.cl/

(1) María Isabel Manzur, June 2003. Investigación biotecnológica en Chile orientada a la producción de transgénicos (Biotechnology research in Chile aimed at transgenics production).

Tropical Forestry Action Plan+30: The FAO and the World Bank are at the center of another false solution to the forest crisis: REDD and Climate Smart Agriculture

30 years ago, during FAO's World Forestry Congress in Mexico in June 1985, the Tropical Forestry Action Plan (TFAP) was adopted as the new international framework for forest-related action (1). In November of the same year, representatives of bilateral and multilateral donor agencies, supported by some international NGOs, also accepted the TFAP (later renamed into Tropical Forests Action Programme) as a framework for their bilateral and multilateral activities and funding related to tropical forests.

Pilot and demonstration projects at the national level and investment programmes elaborated with the support of the World Bank were important activities that paved the road for adoption of TFAP. Over the course of 10 years, more than one hundred countries embarked on TFAP processes, directed by the FAO, in partnership with the World Bank, the United Nations Development Programme (UNDP) and the

World Resources Institute (WRI). Ministries in countries of the global South prepared national plans on 'sustainable forest management', investment strategies and lists of activities to be undertaken to address the deforestation crisis. All these activities related to five areas the TFAP had identified as “critical”– and all five related to promoting neoliberal set-up of state institutions and a segregated land use with intensive industrial forestry and agriculture and the related export and processing industries on the one hand and strict conservation of tropical forests in protected areas that deprived local communities of access to the forest. (2) While the forest crisis continued and deforestation soared, the majority of the TFAP initiatives had collapsed by 1995 – though many of the negative impacts for forest communities of the activities they promoted remained much longer.

Fast-forward 30 years, and funding from the World Bank and FAO (as well as their TFAP partners UNDP and WRI and a handful of industrialized country donors) is again pushing forward pilot and demonstration initiatives and national policy and investment schemes in a large number of countries with tropical forests in the global South. Again, the stated objective is to tackle the deforestation crisis. The ‘development’ objective of the TFAP has been replaced by the objective for the initiatives promoted by the World Bank and FAO to now address the climate crisis, through reducing emissions caused when forests are destroyed. And again, the initiatives – this time under the umbrella of REDD (Reducing Emissions from Deforestation and Forest Degradation), landscape REDD and climate-smart agriculture – are bound to fail in addressing the forest and climate crisis because as with the TFAP, their analysis of the root causes is faulty (3). The TFAP 30 years ago and now, REDD and climate-smart agriculture wrongly identify the problem in small-scale peasant agriculture and the solution in industrial forestry and agribusiness.

Numbers replace political debate

Where 30 years ago TFAP promoted and paid for national forestry programmes as the policy instrument that would help solve the problem, the World Bank, FAO and bilateral donors this time around are pushing for forests and agricultural landscapes be made to fit into the balance sheets of accountants. Since 2005, funding for forest carbon inventories (accounts of the amount of carbon stored in trees and soils in an specific area), forest carbon mapping (showing where forests are with lots of carbon stored in the trees, using largely satellite technologies), forest carbon assessments and investment plans based on experimental 'performance-based' carbon payments (payments that depend on the results of an specific carbon project) has skyrocketed. And the FAO, the World Bank and the same bilateral donors that 30 years ago funded most TFAP activities are now financing these carbon assessments and mapping and methodology activities.

In the discussions on REDD and climate-smart agriculture, carbon assessments and mapping are often presented as technical exercises, yet they are fundamentally political: These accounting and mapping exercises are essential elements in the construction of the story of where the problem lies and what solutions are proposed to the forest and climate crisis. Accounting exercises as part of REDD model projects that focus on changing shifting cultivation towards more sedentary forms of agriculture and climate-smart agriculture pilot projects emphazising the need of yield increases in peasant agriculture produce the ‘objective numbers’ that then help present the false picture that peasant agriculture and shifting cultivation of forest peoples are the problem (4).

Another example for how carbon accounting is used to manufacture a particular interpretation of the problem and marginalize others is the FAO's “Climate-smart agriculture for development” webpage (5). The page lists five initiatives that either focus on or include carbon assessments in forests and agriculture as a main component. The Mitigation of Climate Change in Agriculture (MICCA) Programme includes in its areas of work, “Monitoring and Assessment of Greenhouse Gas Emissions; Mitigation Potential in Agriculture; Pilot projects: putting climate-smart agriculture into practice (6).” The UN-REDD Programme (7), guided by FAO, UNDP and the UN Environmental Programme and which collaborates with MICCA, opens its webpage with the headings "Measurement, Reporting and Verification". Moreover, two programmes supported by the European Union, the Swedish International Development Agency (SIDA) and the MICCA Programme seek to further advance the carbon accounting. The Ex-Ante Carbon-balance Tool (EX-ACT), which is a land-based accounting system developed by FAO that estimates changes of carbon storage on forest and agricultural land and the Economics and Policy Innovations for Climate-Smart Agriculture (EPIC) programme, with the “ultimate objective” "to support developing and in-transition countries to formulate agricultural investment proposals to increase resilience to climate change and promote CSA [climate-smart agriculture]." (8) Many names for more or less the same thing: Making forests fit on a carbon accounting scheme!

Not a word in any of the five introductory pages to these initiatives on the fact that industrial agriculture, the agricultural model subtly promoted through these initiatives, is a main driver of deforestation and responsible for the majority of greenhouse gas emissions from the agriculture and forestry sector. Instead, images and 'objective' figures distilled from the carbon accounts are and will be used to reinforce the myths that peasant agriculture and shifting cultivation are the main causes of deforestation.

The booklet “FAO success stories on climate smart agriculture” is another example of the FAO's role in framing deforestation in a way that blames peasant agriculture and shifting cultivation for forest loss and promotes industrial agribusiness and monoculture as solutions. The booklet includes 11 examples of climate smart agriculture. All 11 examples included in the booklet are from countries in the global South (China, Tanzania, Peru, Malawi, Vietnam, Zambia, India, Nigeria, Nicaragua etc.).

Agroecology is also conspicuously absent from the list while several examples are linked to financing through carbon markets. These include pilot projects from Malawi or Zambia, countries with some of the lowest greenhouse gas emissions in the world. Yet, the FAO's 'climate-smart' proposal is that they finance their projects aimed at adjusting to a global climate crisis caused by excessive fossil fuel use in industrialized countries through a carbon market that is based on countries like Malawi and Zambia reducing their already low greenhouse gas emissions so industrialized countries can continue burning oil, coal and gas.

“Turning our farmers’ fields into carbon sinks – the rights to which can be sold on the carbon market – will only lead us further away from what we see as the real solution: food sovereignty. The carbon in our farms is not for sale!”, La Vía Campesina, a world-wide peasant organization, wrote when governments and corporate lobbyists met in Warsaw, Poland, for the annual UN conference on climate change in 2013. They pointed out what FAO and the World Bank regularly fail to highlight in their presentation of the "deforestation problem": that while agriculture is a major contributor to climate change and forest loss, not everybody growing crops shares the same responsibility for the emissions or the destruction of forests. It is the industrial food system – with its heavy use of chemical inputs, the soil erosion and deforestation that accompanies monoculture plantation farming, and the emphasis on production for export markets – which is the main source of greenhouse gas emissions and deforestation, not shifting cultivation and peasant farming (see WRM bulletin 204, August 2014). By contrast, peasant farming and agroecology, with a focus on food sovereignty are already proving that it is possible to grow food to ‘feed the world’, and do so producing far fewer emissions than the industrial model of agricultural production of crops for export markets.

Just as TFAP did nothing to halt the drivers of deforestation, it is becoming increasingly obvious that REDD and climate-smart agriculture are not designed to tackle the root causes of forest loss or climate

change. Rather, they will help pave the way for industrial agriculture and food production for export to expand even further while industrialized countries are supplied with the carbon credits that will allow them to continue burning oil, coal and gas while at the same time pretending they are reducing emissions. Making visible this construction of the narrative that blames peasant farming and promotes industrial agriculture and carbon markets as (false) solutions will be important throughout 2015 as FAO, the World Bank and their partners will engage in a major push to increase the momentum for REDD and climate-smart agriculture to be included as part of the carbon markets in the next international climate agreement expected to be adopted at the December 2015 UN climate conference in Paris, France.

(1) Committee on Forest Development in the Tropics Tropical Forestry Action Plan. Food and Agriculture Organization of the United Nations. Rome, 1985.
http://www.ciesin.columbia.edu/docs/002-162/002-162.html
(2) http://www.fao.org/docrep/r7750e/r7750e06.htm
(3) See WRM articles: "REDD moves from forests to landscapes: more of the same, just bigger and with bigger risk to cause harm", http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/redd-moves-from-forests-to-landscapes-more-of-the-same-just-bigger-and-with-bigger-risk-to-cause-harm/ ; and "Blue Carbon" and "Blue REDD": Transforming coastal ecosystems into merchandise, http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/blue-carbon-and-blue-redd-transforming-coastal-ecosystems-into-merchandise/
(4) See, "REDD, A Collection of Conflicts, Contradictions and Lies", WRM, http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/
(5) http://www.fao.org/climatechange/climatesmart/en/
(6) http://www.fao.org/climatechange/micca/en/#approach
(7) UN-REDD stands for "United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries"
(8) http://www.fao.org/climatechange/epic/home/en/

PEOPLES IN ACTION

Women peasants preventing GM trees release in Brazil!

In the morning of 5 March 2015, 1,000 women from the Landless Rural Workers Movement in Brazil (MST) occupied the area of field trials with genetically engineered eucalyptus trees, run by the biotechnology company FuturaGene (owned by the Suzano pulp and paper company) in Itapetininga, state of Sao Paulo. The action prevented the continuation of the research with transgenic eucalyptus seedlings, denouncing its negative impacts on the environment. Later that morning, another group of 300 peasants from La Via Campesina occupied the building and meeting of the Biosafety Technical National Commission (CTNBio), which planned to decide whether to approve Futuragene's transgenic eucalyptus trees. As a result of the occupation, CTNBio meeting was postponed and no decision was made. According to Atiliana Brunetto, a member of the National MST, any decision of the Commission must respect the Brazilian legislation and the Convention on Biological Diversity (CBD) to which Brazil is a signatory. "The precautionary principle is always ignored by CTNBio. The vast majority of its members are placed in favour of business interests of the large multinationals at the expense of environmental, social and public health consequences," she says. For Brunetto all approved transgenic organisms mean more pesticides in agriculture, since the packets approved for commercializing always include one or other type of agrotoxin. See videos and photos here
See also a letter from the Executive Coordinator of the Centre for Studies and Research of the Extreme South of Bahia – CEPEDES/BA and activist in the Campaign against agrotoxins and for life, in Portuguese here, and in Spanish here.
On 9 April, the CTNBio will meet again to discuss the commercial release of transgenic eucalyptus trees in Brazil and will try again to approve it. Therefore, once again, we invite everyone to accompany the popular struggles demanding CTNBio to stop the release of GE trees. You can sign solidarity a petition through the "Stop GE Trees Campaign" here

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US Greenlights First GE Tree for commercialization

In an unprecedented and alarming move, the United States Department of Agriculture has given GE tree company ArborGen permission to pursue commercial production of a genetically engineered loblolly pine with no regulatory oversight or environmental risk assessment. In the current plan, the potential impacts to the public or to the environment will not be evaluated. This decision sets a terrible and unacceptable precedent. Read further (in English) here:

http://www.dogwoodalliance.org/2015/02/us-greenlights-first-ge-forest-tree-for-commercialization/
Take action to tell the US Department of Agriculture and ArborGen that this will not be tolerated. Sign an online petition here:
http://dia.dogwoodalliance.org/p/dia/action3/common/public/?action_KEY=17239

Activate Resistance against Monocultures

A video produced by Radio Mundo Real, in collaboration with the Alliance for Biodiversity, Friends of the Earth Latin America and the Caribbean, and the World Rainforest Movement, shows how the advancement of the industrial monoculture model of agribusiness, which is displacing people and degrading land, has generated fierce resistance. The main driver of the monoculture model is the profit motive, which is incompatible with the defence of biodiversity, the health of rural and indigenous people, and the right to food sovereignty. Local communities are resisting by re-occupying their territories, planting a variety of crops and developing their own cultural expressions. They are, of course, not exempt from threats and risks. The video is available (in Spanish with English sub-titles) at: https://vimeo.com/117847729

RECOMMENDED

From Africa's Palms

Aljazeera's People and Power TV program released a video on the social and environmental consequences of oil palm plantations in Cameroon, where the government has been trying to attract the palm oil industry by offering a number of incentives. For example, in 2010, the Cameroonian government struck the outlines of a deal with a US-based enterprise called Herakles Farms, granting it exclusive use of a biodiversity hotspot in south-western Cameroon - an area covering 73,000 hectares of pristine forest with communities and farmland inside - to start plantations. Impacts are already starting to be felt. As Samuel Nguiffo from the Centre for Environment & Development says in the video, "Our first priority should be to support small farmers to grow the crops that they will be eating… and we need our lands for that". See full video (in English) here:
http://www.aljazeera.com/programmes/peopleandpower/2015/02/africa-palms-150223110509150.html

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The global biomass robbery

A new report by EJOLT, an alliance of academic and activist groups struggling for environmental justice, analyses the increasing global biomass trade and highlights its impacts. The report examines the global evolution of food production and international food trade and identifies related drivers of socio-environmental conflicts. Looking at the history and causes of the oil palm industry in Indonesia, the soy monocultures in Paraguay and large land investments in Ethiopia, the case studies help to illustrate the broader patterns in the global biomass trade. Author Andreas Mayer commented that "The current expansion of agricultural lands in the global South puts massive pressure on local populations that are often threated with losing their livelihoods. This report aims to reveal the biophysical conditions and structural drivers of these conflicts and thus to identify conflict potentials that result from the dominant model of industrialized agricultural production". See full report here:
www.grain.org/bulletin_board/entries/5178-the-global-biomass-robbery

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"Climate-smart agriculture", at the service of carbon finance and multinational corporations

The Global Alliance for Climate-Smart

Agriculture was launched on September 2014, at the UN Climate Summit in New York. This alliance is the outcome of years of determination by FAO and the World Bank to get the concept of "climate-smart agriculture" onto the international agenda, together with the ideological context and policies it implies. Behind the reasonable and virtuous image of a climatically benign agriculture, priority is being given to approaches like biotechnology and offsets for greenhouse gas emissions, rather than to the knowledge and experience of small-scale farmers who protect the environment and climate. The alliance is opposed by the vast majority of NGOs and social movements, including La Via Campesina, the largest international movement of small-scale farmers. ATTAC-France and the French peasant organization Confédération Paysanne have prepared a document analyzing this new concept, available (in French) at: https://france.attac.org/nos-publications/notes-et-rapports-37/article/la-climate-smart-agriculture-une

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Defending and promoting the right to Food Sovereignty around the world

The latest Nyéléni newsletter edition shows articles on how peoples across the world are fighting to secure and defend their rights to "natural resources" and the rights of nature, providing valuable information about tools that can be used to strengthen our struggles. You can download the newsletter (in English) here: http://nyeleni.org/DOWNLOADS/newsletters/Nyeleni_Newsletter_Num_21_EN.pdf

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Editor-in-Chief: Winfridus Overbeek
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WRM International Secretariat
Maldonado 1858 - 11200 Montevideo - Uruguay
ph: 598 2413 2989 / fax: 598 2410 0985
wrm@wrm.org.uy - http://www.wrm.org.uy