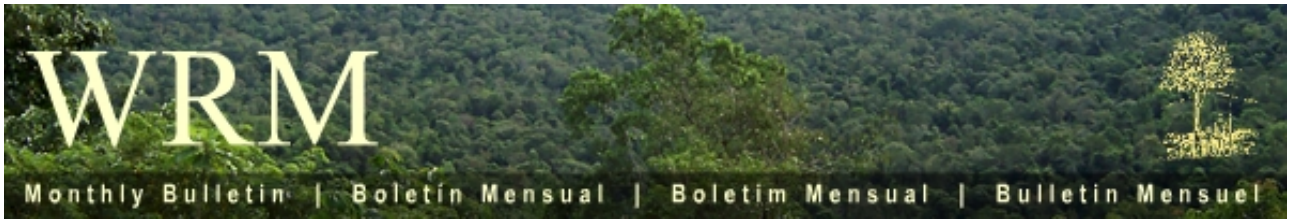

Issue 168 - July 2011

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OUR VIEWPOINT

- For the real protection of mangroves

Mangroves around the world are suffering from alarming levels of destruction, often as a result of industrial shrimp farming, but also due to other predatory activities such as oil drilling.

And this is why, around the world, communities and organizations are fighting to stop this destruction. One example is the "Mangroves Yes! Shrimp Farms No!" campaign spearheaded by the *Redmanglar Internacional* network to oppose the destructive activities of companies that establish industrial shrimp farms in the mangrove regions of tropical countries to supply the markets of industrialized countries.

There is also an urgent need for the restoration and reforestation of mangroves that have already been destroyed. This is of paramount importance for the survival of mangroves and the continuity of their essential ecological functions, as well as the survival of the thousands of communities who depend on these unique and resource-rich ecosystems.

However, there are different approaches to this goal. One of the articles in this bulletin, for example, looks at the mercantile approach being promoted by the French transnational group Danone for the supposed reforestation of mangroves. The group's motivation is the possibility of purchasing carbon offsets through the Kyoto Protocol Clean Development Mechanism (CDM), on the grounds that mangroves have enormous capacity for storing carbon. Danone claims that it is contributing to combating the climate crisis and benefiting local communities, while hiding the fact that thanks to the offsets acquired, it will be able to continue polluting and producing carbon emissions. And all at a relatively low cost, since the supposed "abundance" of carbon in mangroves would serve to decrease the value of the offsets generated.

There is another approach to mangrove restoration, one that involves no commercial interests, but rather a process that is effectively controlled and carried out by the communities that have always lived with and from the mangroves, without the need to destroy them. Instead of corporations and consulting firms calculating carbon credits, this process requires supporters and researchers committed to working with these communities so that together they can design and implement different means of restoration, in accordance with each individual situation and region.

This approach is closer to the interpretation of "green economy" advocated by the South Asia Women's Network (SWAN), who declare in this bulletin: "Sharing our vital resources equitably and using them sustainably for livelihoods and basic needs is at the heart of our concept of a green economy."

In this regard, guaranteeing the survival of the world's mangroves means radically changing the currently dominant and unequal model of production and consumption, beginning with drastically reducing the exploitation of natural resources and fossil fuels, and in the specific case of mangroves, prohibiting the industrial production of shrimp.

This would be an extraordinary and fundamental contribution to the future survival of the world's mangroves and the communities who depend on them.

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INTERNATIONAL MANGROVE DAY

- Commemorating the "International Mangrove Day"

Mangroves are a unique ecosystem hosting incredible biodiversity: migratory birds, marine creatures and reptiles in addition to associated species of flora. They function as a natural water treatment system; as spawning grounds for fish they provide several resources to local communities who directly or indirectly depend upon them

for their livelihoods and sustenance. Intact mangroves form a natural coastline buffer against floods, storms or other natural disasters such as tsunamis and hurricanes protecting the coasts from the erosion.

Despite all their valuable functions mangroves are threatened by several industrial activities including the expansion and operation of the aquaculture industry, primarily industrial shrimp farming.

Since 2004, the Latin American mangrove organisation Redmanglar Internacional (a network gathering communities, NGOs, scientists and activists working in defence of mangroves) commemorates every July 26 the "International Mangrove Day" as a global call to action against the ongoing loss of mangrove forests and, subsequently, the disruption of local communities that depend upon them. The theme of this year's International Day is entitled "*Mangroves YES, Shrimp farms NO*" to highlight the role of industrial shrimp farming in the degradation and destruction of mangroves.

Another threat to mangroves is the ongoing attempt of certification of shrimp farming, an intrinsically destructive activity that cannot be certified. Several NGOs working with local communities in the shrimp producer-nations and consumers in the shrimp-importing nations have rung the alarm bell regarding the draft standards and the whole fault-ridden WWF-ShAD (Shrimp Aquaculture Dialogue) process (see WRM Bulletin Nº 166). Redmanglar has joined the action and sent an Open Letter addressed to the President of World Wildlife Fund (rejecting the attempt to "greenwash" industrial shrimp farming, an intrinsecally destructive activity). The full letter can be read at http://www.wrm.org.uy/deforestation/mangroves/International_RedManglar_letter_against_WWF_certification.pdf.

Redmanglar has also produced a video (http://www.youtube.com/watch?v=VODq2soHrGQ) that briefly describes the ecological and social impacts of industrial shrimp farming. They invite all of us to use, share and disseminate it through our websites, e-mails, facebook.

Mangrove Action Project (MAP) is another organisation working for mangroves. In the search of a real protection of mangroves MAP is engaged in a bottom-up approach involving local mangrove forest communities in conserving, restoring and maintaining coastal mangrove forest ecosystems. The project is called The Ecological Mangrove Restoration (EMR) and is based upon a set of basic ecological principles capable of restoring a much more naturally functional and biodiverse mangrove ecosystem when compared to other more capital and labour intensive methods such as hand planting alone. The aim of the project is that local communities be directly involved in the conservation and restoration of mangrove ecosystems, as well as in forming sustainable solutions to mangrove loss that will benefit them directly. A full description of the project can be read (in English) at http://wrm.org.uy/deforestation/mangroves/Need_For_EMR.pdf

We join all the communities and groups that work for the protection of mangroves to say in a loud voice: "*Mangroves YES, Shrimp farms NO*"

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- Mangroves hijacked by the carbon market

The capacity of mangroves to store carbon has come to the fore.

University scientists have teamed up with forestry researchers to examine the carbon content of mangrove forests. The finding of one of those studies in the Indo-Pacific region has been published in Nature Geoscience. They found that per hectare mangrove forests store up to four times more carbon than most other tropical forests around the world which can be attributed, in part, to the deep organic-rich soils in which mangroves thrive. The mangrove forest's complex root systems, which anchor the plants into underwater sediment, slow down incoming tidal waters allowing organic and inorganic material to settle into the sediment surface. Low oxygen conditions slow decay rates, resulting in much of the carbon accumulating in the soil. In fact, mangroves have more carbon in their soil alone than most tropical forests have in all their biomass and soil combined. (1)

When land-use change occurs much of that standing carbon stock is released to the atmosphere adding to the problem of climate change. Indeed, mangroves have experienced a rapid 30-50 percent decline in the past 50 years.

The Kyoto Protocol of the United Nations Convention on Climate Change has widened its array of false market solutions by adopting a new method for calculating the carbon dioxide captured and stored from the atmosphere by mangroves which are referred to as “blue carbon” solutions for climate change (see WRM Bulletin Nº 167).

The methodology was developed by IUCN, Ramsar and Sylvestrum, in partnership with the French based food-products transnational group Danone, for the Clean Development Mechanism (CDM) of the Kyoto Protocol. This mechanism allows major industrial countries avoid their historical responsibility of reducing their carbon emissions in the source by investing in projects in the South that allegedly avoid carbon emissions. Advocators of carbon trade-off argue that market incentives for letting mangroves untouched in exchange of selling carbon credits would be “the solution” to preserve these coastal ecosystems as well as combatting climate change.

Mangroves will thus be the target of large companies which are eagerly looking to buy carbon credits as a way of compensating for their continued pollution. An example is the Wetland Carbon Partnership of the aforementioned Danone Group, an initiative established in 2008 that fosters the approval of projects of large amounts of carbon credits under the CDM or the so-called voluntary market. By June 2011, no fewer than 25 projects were received. Danone has already invested in two pilot projects in Senegal and India.

The carbon compensation mechanism ('offsetting') proposed by Danone means that the company will continue burning fossil fuels and increasing the amount of greenhouse gases in the atmosphere, while seeking to offset the pollution by storing it in mangroves somewhere in the planet.

This mechanism means a net increase in the amount of carbon in the biosphere, that is the atmosphere, the living beings, the vegetation and the soil. Even if, for example, mangrove trees or soils absorb carbon, this is a temporary storage and is part of the atmospheric carbon cycle. Meanwhile, fossil fuels extracted from underground and burned by companies like Danone result in a permanent increase in the amount of carbon in the biosphere. That fossil carbon has not been part of the atmospheric carbon cycle and ends up increasing the amount of pollutants responsible for climate change without any possibility of being buried again.

The large scale model of production and commercial distribution of billions of goods, many of them just superfluous and disposable, and intended for overconsumption, produces high level emissions of carbon and is at the root of the present climate crisis. It is the same underlying cause of mangrove deforestation, too. The carbon market is an offshoot of such model and it could hardly be the solution of the problem it has contribute to create.

Article based on information from “Mangroves among the most carbon-rich forests in the Tropics”, June 2011, http://www.salvaleforeste.it/en/201106231474/mangroves-among-the-most-carbon-rich-forests-in-the-tropics.html

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- Mangrove destruction by oil in Niger Delta

Mangrove is a thriving and fragile ecosystem that depends on other nearby ecosystems – the river and salt marshes. In turn, the health of the sea and of coral reefs depends on a healthy mangrove. Everything is connected.

Mangrove forests are also very important to many human communities who live around them and use them in a variety of ways to ensure their food sovereignty with seafood, meet their housing needs with the wood obtained for the construction of houses and poles, and use the various products of mangroves for their livelihood. Those communities all over the world have historically developed a sustainable relation with this rich ecosystem as long as they have been using it on small-scale and to cater for local needs through a deep knowledge of its multiple functions, with women being the most involved.

Despite the importance of mangroves for the environment and the people, they are being harrassed by large scale activities – oil extraction among them.

A document by Oilwatch on the impact of oil activities in mangroves (1) highlights that they imply in the first place deforestation to build facilities - drilling rigs, camps, wells, opening of roads, helipads, etc. The area is also destroyed by the drillings that are done by dredging which involves widening and making deeper the existent channels or opening new ones. The wider and deeper the channel, the more damage is done to the ecosystem. The construction of these channels alter the natural hydrology of mangrove forests and makes them more vulnerable to erosion - the flow of freshwater to the mangroves is disrupted, the flow of tidal water to the mangroves and within them is altered thus disrupting the drainage pattern, vegetation is altered,

soil is disturbed. In turn, soil disturbance may cause changes in soil and water pH that could cause a critical deterioration of the quality of the mangroves.

The presence of oil in mangroves due to accidents, practices related to cleaning of wells or spills produces a critical pollution which can remain in the area for many years.

In Nigeria, large areas of mangroves of the Niger Delta have long been damaged by oil spill occurring regularly. It is said that up to 1.5 million tons of oil has been leaked there in the past 50 years.

Mangrove destruction for oil extraction has brought no benefit to Nigerian rural communities: life expectancy has fallen to some 40 years over two generations, there is very limited access to clean water, farmlands have been affected, ground and drinkable water has been polluted and fishing has been wrecked by the greasy oil that regularly leaks from any of the many hundreds of old pipelines located in highly built up areas and near to fishing ponds and farmlands. The pipelines cross the region to cater for United States' oil needs – 40% of its crude imports comes from the Niger Delta.

"We lost our nets, huts and fishing pots," "We have lost our forest", said Chief Promise, village leader of Otuegwe, to John Vidal, environment editor of The Observer who reported a trip (2) to the place of the Niger Delta where an oil pipe explosion in 2008 had killed at least 100 people. He waded into the swamp until he could smell the oil and ended swimming in pools of oil crude. He quoted the claims of Chief Promise "We told Shell of the spill within days, but they did nothing for six months".

Tragic oil spills in the Niger Delta have occurred almost unnoticed with no major headlines devoted to them. Indeed, the oil spill in the Gulf of Mexico caused by the explosion that wrecked BP's Deepwater Horizon rig last year is less than the oil leaking out of the delta's network of terminals, pipes, pumping stations and oil platforms every year.

On 1 May of 2010 a ruptured ExxonMobil pipeline in the Nigerian state of Akwa Ibom spilled more than a million gallons into the delta over seven days before the leak was stopped. Local people demonstrated against the company but they were attacked by security guards. In the first semester of 2010 there had been four oil spills. The Nigerian Environmental Rights Action group is now demanding 100 million dollars from ExxonMobil for their failure to compensate the devastating losses, and the illness due to the oil company's exploration activities and major oil spills last year.

The recovery of a mangrove forest may take decades under the premise that new oil spills do not occur. For the surrounding communities the destruction of their livelihood and environment is definitive.

Article based on information from: (1) « Explotación petrolera en Manglares », Oilwatch, Boletín Tegantai Nº10, http://www.oilwatch.org/index.php?option=com_content&task=view&id=

112&Itemid=43&lang=; (2) “Nigeria's agony dwarfs the Gulf oil spill”, John Vidal, The Observer, www.guardian.co.uk, May 2010, http://www.guardian.co.uk/world/2010/may/30/oil-spills-nigeria-niger-delta-shell

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COMMUNITIES AND FORESTS

- India: Freedom after a century of struggle

The tribal villages of Surma and Golbojhi celebrated their liberation on the occasion of International Labour Day on May 1. The freedom came after 107 years of struggle when the tribals got ownership of the forestland they have been dependent on for centuries. Home to about 450 Tharu tribe families, the two forest villages are situated in the core zone of the Dudhwa National Park in Lakhimpur district of Uttar Pradesh (UP).

At a time when tribal areas in the country are in the grip of Naxalism, Surma and Golbojhi got liberation after decades of non-violent democratic struggle without firing a single bullet. The two villages are also the first tribal settlements in the country, situated in a national park, to get benefit of the Forest Rights Act (FRA), 2006.

Around 700 acres of the forestland has been distributed among the tribals with each family getting up to four acres. The UP government has also granted them the status of Ambedkar villages, which means that they will now have road connectivity, a primary school and a health centre. Tribals are now also entitled to benefits of various welfare schemes of the state and central governments. The villages are also expected to get the community ownership of the forest land and its produce soon, allowing tribals access to dry grass and wood, tendu leaves, herbs and other forest produce to support their families and livestock.

No wonder that the achievement is historic. That’s the reason why over 5,000 forest dwellers from different parts of UP came to take part in the festivities. Now people have land which they can cultivate for livelihood, send children to school and benefit from constitutional rights as citizens of India. The success has come after years of sacrifices, hardship and untold misery. Ironically, the entire event was ignored by the mainstream national media, which, however, efficiently covers Naxal violence in tribal areas and gives unnecessary space to those who glamaorize and try to justify Naxalism or Maoism. Many peaceful revolutions like those of Surma and Golbojhi are taking or have taken place in India but are not getting the required media attention. Maybe "peace" is not sensational enough to attract eyeballs required for TRP and the stories about poor tribals preferring non-violent Satyagrah over Naxalism are not moving enough to boost readership.

But I feel such motivating stories must be told to our new generation, particularly the privileged lot who took birth in a free India. Since they have got freedom absolutely free, they are generally insensitive towards the suffering of their underprivileged brethren. In 1904, the Tharu tribals were deprived of their land when the British took

over the forest from the queen of Khairgarh estate, which came under Awadh kingdom. The entire forest cover was wiped out by the second world war in 1939-45 due to excessive exploitation. Tharus regenerated the forests in the next 20 years. The country got freedom in 1947 but the British legacy continued in the forest department in free India. Tribals were declared encroachers in their own land in 1978 after the area was converted into a national park. Out of 37 Tharu villages in the area, 35 were relocated. However, inhabitants of Surma and Golbojhi refused to evacuate their land, although land was allotted to them for rehabilitation, it was not only smaller than their original villages but was also already occupied by other tribals. The people of the two villages approached the high court in 1980 but lost the 23-year-long legal battle in 2003.

With eviction threat looming large and no other option left, the tribals decided to launch a non-violent struggle. Women took the lead and formed the Tharu Adivasi Mahila Mazdoor Kisan Manch to lead the agitation. They were assisted by the activists associated with National Forum of Forest People and Forest Workers (NFFPFW). Tribals were harassed, beaten up and subjected to atrocities by the forest personnel. Tribals collected dry wood and grass to repair thatched houses, for handicraft and for fuel but the forest department slapped criminal cases on them on charges of poaching, tree felling and trespassing. Cases were lodged even against children, those who died long ago and those who left the place 20 years ago. "If we are involved in poaching and tree felling, can anybody explain why we continue to live in abject poverty, whereas officials lead a lavish life?" argued Lalmati, a tribal.

In 2006, Parliament passed the FRA and a notification was issued in January 2008 after two years of debate. It came as a shot in the arm for tribals but it still took them more than three years to get the rights. In fact, tribals and the activists working with them told me that the past three years were the most difficult ones. This was the time, they say, when forest department along with the forest mafia and feudal forces tried every trick to evict tribals. The houses of villagers were set on fire and many were arrested on false charges. While under FRA, the gram sabha is entitled to make recommendations about the residential status of a person, forest guards were caught issuing domicile certificates declaring tribals as encroachers. The attempt was to confuse the state government which fortunately was in favour of giving land rights to tribals. Several petitions were also filed in the court by retired forest officials at the behest of the serving ones to stop the government from giving ownership titles to the original inhabitants of forests.

Ram Chandra Rana, another tribal, recalled how some "wildlife enthusiasts" joined the battle with the argument that converting a village situated in the core zone of tiger reserve will be a threat to wildlife, particularly tigers. "Our answer was simple for hundreds of years, forests were safe in the hands of tribals but forest cover started depleting and wildlife came under threat soon after the forest department was formed. But the fact is that tribals treat forest as God, hence they protect the habitat. The number of tigers decreased when forests were under the full control of the forest department but after implementation of the FRA, that is, as tribals started getting land titles, the number of tigers increased everywhere in the country," he said. But why didn't you take the rehabilitation package of Rs 10 lakh along with a piece of land. "We cannot sell our motherland. It's the question of our self-respect and right to live

with dignity," he said.

After hearing the stories of sufferings, sacrifices and achievments of these tribals and activists like Ashok Da who dedicated his entire life for underprivileged, I was forced to ask myself a question: "What have I done besides jotting down some words while sitting in my air-conditioned office and feeling great about it?" I found the answer in "Why I Am An Atheist?", written by revolutionary Bhagat Singh in 1930: "...A short life of struggle with no such magnificent end, shall in itself be the reward if I have the courage to take it in that light. That is all. With no selfish motive, or desire to be awarded here or hereafter, quite disinterestedly have I devoted my life to the cause of independence, because I could not do otherwise. The day we find a great number of men and women with this psychology who cannot devote themselves to anything else than the service of mankind and emancipation of the suffering humanity; that day shall inaugurate the era of liberty...."

Even if 10% of us (priveleged class) follow what Bhagat Singh said, 90% of India's problems will be solved.

By Ashish Tripathi, Indian journalist. Sent by Roma, NFFPFW (Kaimur) / Human Rights Law Centre, Uttar Pradesh, India, e-mail: romasnb@gmail.com, http://jansangarsh.blogspot.com

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- Women network committed to a true Green Economy

Women of South Asia working in several areas including health, nutrition, livelihood, environment, gathered in Dhaka, Bangladesh on July 2 and 3, 2011, for the Third Annual Conference of SWAN (South Asia Women's Network), which was dedicated to the theme of "Women of South Asia and the Green Economy".

SWAN's final declaration concludes that the emerging concept of Green Economy should mean "an economic system that ensures social justice and equity, protects the ecological balance and creates economic sufficiency. Such a Green Economy should replace the current economic order, which is based on inequity, environmental destruction and greed, which has resulted in keeping nearly half the world's population in poverty, and has brought the planet to the point of a severe environmental catastrophe through climate change. The core idea of a Green Economy must be poverty alleviation, environmental sustainability through maintaining biodiversity, and the well-being of all the people.

South Asia is one of the richest regions in terms of bio-cultural diversity, but this diversity is under threat of monocultures pushed through the Green Revolution and genetic engineering. These non-sustainable and failed technologies are being forced on our people, driving them deeper into debt and poverty. Our rich biodiversity and knowledge heritage is being patented and pirated, depriving our people of the benefits of their own heritage and resources. When environmental crises force us to migrate to cities, we also experience loss of livelihoods due to lack of access to urban space, materials and new forms of urban management. Our

bodies are imprinted with toxics from unsustainable consumption of others. The right to sustainable development should be inalienable. This is vital for women's empowerment and for preserving our planet for future generations."

The Dhaka Declaration voices women's view that "Our local economies have always been in harmony with nature. We have used resources prudently, and shared them equitably. SWAN believes that agriculturists and craftspeople around the world have always worked in tandem with the seasons and in harmony with nature. A craftswoman carries with her the wisdom of generations that did not pillage the planet for profit. She has a deep commitment towards nurturing the natural world for sustaining livelihoods. The only raw materials needed to keep millions employed is a thriving green environment with rich forests, wild grasses, clean waters, and unravaged hillsides. The dignity and creativity of hand-work greatly contributes towards sound rural economies. This work of women across the South Asian region must be acknowledged by all those who wish to build an inclusive and truly integrated, ecologically balanced world.

Today, those who have created the ecological crisis talk of the Green Economy. For them, the Green Economy means appropriating the remaining resources of the planet for profit — from seed and biodiversity to land and water as well as our skills, such as the environmental services we provide.

For us, the privatization and commodification of nature, her species, her ecosystems, and her ecosystem services cannot be part of a Green Economy, for such an approach cannot take into account our traditions. The resources of the Earth are for the welfare of all, not the profits of a few.

Sharing our vital resources equitably and using them sustainably for livelihoods and basic needs is at the heart of our concept of a Green Economy. Our rich knowledge of biodiversity, our ecologically sustainable agriculture, and our crafts techniques are free of fossil fuels and toxics. They generate creative and dignified livelihoods and they provide the basis for poverty alleviation. We stand committed to strengthening these life-giving traditions.

It is of vital importance to spread awareness about these issues through the media and through the educational process, which reaches out to youth and children. Awareness about the Green Economy and the significance of its diverse impacts is essential in order to enable all segments of society to make informed choices. Recognizing the changing face of the media, SWAN encourages the use of new media, including social networking tools, to reach out and support the women of South Asia in their struggle to meet the challenges of ensuring the Green Economy for sustainable development.

Our Green Economies are diverse and decentralized and therefore are a path of empowerment for all. Women are the storehouse of knowledge and provide the cultural base to create and build economies that increase wellbeing and happiness, joy and beauty, sustainability and equity. It is from our region of South Asia that the concept of Gross National Happiness has spread worldwide. We will deepen this concept and make it the basis of the Green Economy."

At a time when the issue of Green Economy is gaining momentum at regional and multilateral forums it is crucial to defend its true meaning and for that these women's voices mut be heard loud.

Article based on Dhaka Declaration: SWAN (South Asia Women's Network)'s Positions on an emerging Green Economy, sent by Vandana Shiva

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COMMUNITIES AND TREE PLANTATIONS

- Brazil: Mato Grosso do Sul - The new eucalyptus frontier

The region of Brazil, and perhaps the world, where monoculture eucalyptus plantations and pulp production are expanding most rapidly is in the state of Mato Grosso do Sul, and specifically the micro-region of Três Lagoas.

This micro-region is currently home to a pulp mill owned by Fibria – a joint venture formed by the Brazilian companies Aracruz and Votorantim – and a paper mill controlled by US-based International Paper. The Fibria mill produces 1.3 million tons of pulp a year, and there are plans for the investment of BRL 3.6 billion (more than two million dollars) in a second mill, scheduled to open in 2014. This would raise the company's pulp production to three million tons a year. Fibria currently owns 150,000 hectares of eucalyptus plantations and plans to double this area.

In addition to these activities, a company called Eldorado Brasil is building a pulp mill in this same micro-region with a production capacity of 1.5 million tons of pulp annually, scheduled to enter into operation in November 2012. The company also owns 150,000 hectares of eucalyptus plantations.

The Chilean company Arauco and Portuguese company Portucel have also shown interest in investing in eucalyptus plantations and producing pulp in Mato Grosso do Sul.

This uncontrolled expansion – for which the state government has waived the normal requirements for environmental impact assessments and reports – led the Federal University of Mato Grosso (UFMS) to organize, in conjunction with other universities and social organizations, a symposium on "The Formation of the Pulp and Paper Complex in Mato Grooso do Sul: Limits and Prospects", which took place from June 30 to July 2 in Três Lagoas.

According to a study presented during the seminar, the region experienced a major expansion of livestock ranching in the 1970s, which led to a significant concentration of land ownership and numerous conflicts. In the state of Mato Grosso do Sul, landholdings of more than 1,000 hectares represent 10% of properties yet occupy 77% of the land area (according to 2006 figures). Also in the 1970s, an area of the state was taken over by plantations of eucalyptus trees, which were used to produce charcoal. By the 1990s, there were 8,000 workers subjected to slave labour conditions in the state, in addition to cases of child labour.

More recently, monoculture tree plantations have undergone further expansion, this time for the purpose of pulp production. Between 2005 and 2009, the area occupied by tree plantations in the micro-region of Três Lagoas doubled from 152,000 hectares to 308,000 hectares of plantations, almost entirely of eucalyptus. This area is expected to increase to one million hectares by 2020.

This expansion has been associated with a series of significant changes in rural and urban areas. Milk production on small dairy farms in Três Lagoas fell from 11 million litres to five million litres annually between 1996 and 2006. The production of food crops has also decreased considerably. For example, there are now practically no beans grown in this area, now dominated by large landholdings. Today, small landholdings account for a mere 30,000 hectares of the total of four million hectares encompassed by the micro-region.

Meanwhile, with the uncontrolled rise in property values, large landholders are able to take greater advantage of the eucalyptus boom by selling or leasing out their lands, thus further entrenching the major concentration of land ownership and hindering the process of agrarian reform. There are reports of deforestation and the bankruptcy of local businesses. The ten agrarian reform settlements in the area, home to 1,147 families, are becoming completely hemmed in by eucalyptus plantations. In urban areas, the huge influx of workers for mill construction has led to problems of overcrowding in housing.

There has also been an increase in rates of violence; for example, the incidence of domestic violence against women has tripled in recent years.

A field visit and conversations with the local inhabitants reveal that the greatest concern of farmers who live near the plantations is the use of toxic agrochemicals. The companies' widespread use of aerial spraying has also led to complaints about the resulting unpleasant odour. They reported as well that numerous water sources have dried up. Another concern is the exodus of people from the countryside due to the sale and lease of large landholdings, which has made the large landowners wealthy but deprived local inhabitants and farm workers of land. Some have begun to fight for agrarian reform, since the National Institute of Colonization and Agrarian Reform (INCRA) has not made resources available for new settlements in the area for several years, making life even more difficult for settled farmers. Other families driven off the land have been forced to look for employment and housing in the city, where the cost of living has increased drastically due to real estate speculation.

What is particularly striking in the plantation areas is the presence of a few isolated trees, of species native to the Cerrado ecosystem, in the midst of the eucalyptus. According to a local inhabitant, these trees tend to die when they are surrounded by eucalyptus. In addition, these few native trees are exposed to toxic agrochemicals and isolated from the flora and fauna of the region, which are non-existent in monoculture plantations, and thus seem like exhibits in an "outdoor museum".

Whether they die or manage to survive, the presence of these trees aptly symbolizes the people of the micro-region of Três Lagoas, where there is no room for alternatives to the pulp-plantation model in the midst of a growing sea of eucalyptus. The trees of the Cerrado, like the area and its people, have been

"occupied" by this model which continues to expand with the full support of the state and federal authorities, creating wealth for a small few and an uncertain future for the majority of the population.

By: Winnie Overbeek, WRM International Coordinator

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- Transgenic trees: The industry race is on

The forestry industry's endless pursuit of bigger profits has led to the growing homogenization of trees cultivated for timber, pulp and paper production.

It started with the selection of the fastest-growing species, with straight trunks, sparse and thin branches, and wood suited to industrial use. Next came the adoption of the Green Revolution package of increased mechanization of forestry work, chemical fertilizers, toxic pesticides and herbicides to prevent other plants from competing with the industrially cultivated trees. Another key step was traditional genetic selection to "improve" the performance of tree plantations in terms of yield, which was promptly followed by hybridization and cloning of the "best" trees. The next stage was the genetic modification of trees to achieve even greater production yields, although this has been met with major resistance by social organizations, in addition to concerns raised by the scientific community related to issues like the risk of contaminating the genetic material of native trees. As a result, this stage is still largely experimental (WRM has prepared a series of information sheets on genetically engineered or GE tree research in countries around the world, available at: http://wrm.org.uy/subjects/GMTrees/Information_sheets.html).

The interests at stake have become more complex. Forestry and pulp and paper companies are linked to big laboratories and are forming increasingly vast transnational conglomerates. The hunger for profit continues to grow.

In recent weeks, a number of events have taken place that illustrate the push of the forestry sector – including forestry companies and biotech laboratories – for the commercial release of GE trees in two countries of prime importance for the sector: the United States and Brazil.

ArborGen, based in South Carolina, USA, is an international leader in the research and development of GE trees and is now taking steps to sell its trees in both the United States, where it already has experimental plantations, and Brazil. Transgenic tree plantations would reportedly serve multiple purposes: they would be used for the production of pulp for papermaking, for so-called "second generation biofuels" like cellulosic ethanol, and for the generation of electrical power from wood.

This past June 26 to July 6, the 2011 edition of the Tree Biotechnology Conference, an annual meeting organized by the International Union of Forest Research Organizations (IUFRO), was held in the state of Bahia, Brazil. The event was sponsored by pulp and paper companies like Veracel Celulose, a joint venture between the Swedish-Finnish transnational Stora Enso and Fibria of Brazil, and

forestry biotech companies like ArborGen.

The conference gathered together 300 industry representatives and researchers. The issues discussed included the commercial future of GE trees. A number of Brazilian industry representatives stressed that is was urgent for Brazil to approve the commercial release of genetically modified trees as soon as possible, at the risk of lagging behind in the transgenic eucalyptus race. Meanwhile, the vice president of strategy and development at FuturaGen, one of the participating biotech companies, declared: "We are ready for the market. We have done all the performance testing. All that's needed is the regulation." (1)

Concerns with falling behind in the race for transgenic eucalyptus are probably motivated by ArborGen's request to the US Department of Agriculture (USDA) for permission to sell 500 million of their GE eucalyptus trees annually. The trees are engineered to be cold-resistant, contain less lignin, and digest part of their own RNA in order to reduce their fertility (a process known as "Terminator" technology"). (2) (For more information on GE trees in general, see the briefing on the subject prepared by WRM at http://www.wrm.org.uy/subjects/GMTrees/briefing_GMT.pdf)

The USDA had already approved the experimental planting of 260,000 of these eucalyptus trees in 29 testing sites, a decision that prompted the filing of a lawsuit against the agency by the member organizations of the STOP GE Trees Campaign, which include the Global Justice Ecology Project, Dogwood Alliance and Sierra Club.(3)

Brazil is currently the world's fourth largest producer of pulp, and has experienced a rapid and massive expansion of large-scale industrial monoculture tree plantations. The resulting impacts on rural communities have been so serious that a major resistance movement has emerged, comprised of organizations like the Alert Against the Green Desert Network and Via Campesina, among others.

The efforts of the forestry industry to incorporate transgenic trees into its production model will not let up. That is why it is crucial to ensure that the resistance to these efforts does not let up, either.

This article is based on information gathered from: (1) A report by Stella Fontes published by the Brazilian newspaper Valor, July 4, 2011, http://www.valoronline.com.br; (2) Action Alert: End U.S. FrankenTree Experiments: Genetically Engineered Trees Risky, Unnecessary and Must Be Resisted Until Banned - http://forests.org/shared/alerts/sendsm.asp x?id=frankentrees; (3) "Groups Sue U.S. Gov't Over GMO Trees", Press release, http://www.globaljusticeecology.org/pressroom.php?ID=417

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DEFINING FORESTS

- Be alert! Don't allow tree plantations to be called forests

Wikipedia – the free encyclopedia built collaboratively – is an increasing reference even for academic use. We can have a voice there and contend every occasion when monoculture tree plantations are treated as forests.

But we can influence also in other fora – radio and TV programs, educational books, informative bulletins, magazines, and so on. Even in informal conversations! Wherever you can. Just be alert!

We invite and urge you to make the difference. Let's put it clear that tree plantations are not forests!

For further information on the WRM Campaign on Forests Definition visit http://www.wrm.org.uy/forests.html

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