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THE FOCUS OF THIS ISSUE: CLIMATE CHANGE

While in the meeting rooms of the Convention on Climate Change there is talk of complex and convoluted formulas and instruments to "sell" emissions and "compensate" for pollution – so that the major interests of oil, mining and logging companies and of large capital assets do not suffer – in the real world the people are taking action.

Any struggle for protecting forests is an action in favour of the climate; any opposition to polluting and destructive megaprojects is an action in favour of the climate; any complaint against projects affecting nature is an action in favour of the climate.

The articles included in this bulletin describe very diverse realities and situations, but all of them, without exception, have a link with climate protection. In spite of this fact, what communities receive is not applause but repression and, in the best of cases, disregard.

It is time for the Climate Change Convention to look at the right side, the side of those who are in fact acting in favour of the climate. It has the responsibility to do so.

OUR VIEWPOINT

WHAT THE CONVENTION ON CLIMATE CHANGE DOES NOT SEE

WRM'S CONTRIBUTION TO THE DEBATE ON CLIMATE CHANGE

OUR VIEWPOINT

- Unifying struggles under the climate change umbrella

For peoples struggling for their rights in forest areas, climate change appears to be far removed from their immediate concerns. However, whether they know it or not, they are one of the most important and committed actors in protecting the Earth's climate.

For instance, those opposing industrial logging operations in their territories may feel that their struggle is only about rights and livelihoods. And that's what it's about for them, of course. However, by stopping logging operations, they are also preventing the release of large amounts of carbon dioxide emissions –the main greenhouse gas leading to global warming- which is safely stored in the forest biomass.

Communities fighting against large hydroelectric dams are also preventing the release of huge amounts of greenhouse gases such as methane, CO2 and nitrous oxide from the dams' water reservoirs, as well as the release of CO2 from the forests that would be destroyed and from many other dam building-related sources.

Indigenous and other forest-dependent communities confronting government or corporate plans for the "conversion" (destruction) of forests to large scale agriculture and cattle raising, to oil palm and timber plantations, to industrial shrimp farming, to mining, are also in fact protecting the world's climate by preventing the release of enormous amounts of CO2 and other greenhouse gases to the atmosphere.

Forest communities confronting oil exploration and exploitation in their territories are even more directly linked to combating climate change, because they are doing exactly what needs to be done: preventing the extraction –and thus the burning- of fossil fuels, which are the main and climatically the worse source of CO2 emissions related to global warming.

From the above, it is quite evident to anyone having a minimal knowledge about the causes of climate change that those peoples' struggles are in fact preventing further climate change. However, most of those struggles are being repressed and criminalized by governments that have signed and ratified the 1992 United Nations Framework Convention on Climate Change. At the same time, the corporations that are directly or indirectly involved in those investments are based in countries –mostly Northern- that have also signed and ratified that Convention.

The conclusion is obvious: by repressing those struggles –or supporting corporations involved in the issue- governments are not only violating local peoples' rights but also a United Nations Convention created to address the most serious threat faced by humanity: climate change.

Additionally, many of the "solutions" put forward by governments for addressing climate change result in further social and environmental impacts which lead to local resistance. For instance, as a means of avoiding the necessary cuts in their own emissions, Northern countries were instrumental in the creation of mechanisms for "offsetting" their emissions. One of such mechanisms promotes the establishment of large-scale tree plantations to act as "carbon sinks." This means promoting the same type of plantations that are already being opposed by countless local communities throughout the world. Another "solution" for avoiding the necessary changes in production and consumption leading to climate change has been the promotion of agrofuels –ranging from corn and soya to oil palm and eucalyptus- which have also proved to be socially and environmentally destructive thus resulting in organized local opposition.

Though it is not easy to establish if those –and many other equally absurd- "solutions" originate from government delegates at the Convention on Climate Change or from corporate lobbyists at home and present at the Convention, it is clear that a large number of corporations and entrepreneurs are benefiting or plan to benefit from them.

As regards to climate, the current situation thus shows that those who have the power to make things change –governments- are

unwilling to do what's necessary.

On the other hand, there are a large number of actors carrying out different forms of resistance at the local level, that originate in different issues apparently far removed from climate, such as land reform, small scale agriculture, food sovereignty, indigenous and traditional peoples' rights, gender equity, human rights, pollution, consumption and many more.

In most –if not all- those struggles there is at least some link with climate and therefore all those different resistance processes could be part of the much broader struggle to prevent climate change. This can be the common link for uniting local, regional and international movements under the climate change umbrella, in order to bring about the major social and economic changes needed for achieving that aim.

While governments play the fiddle -for the delight of corporations- the future of humanity now lies in the hands of its peoples.

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WHAT THE CONVENTION ON CLIMATE CHANGE DOES NOT SEE

- Brazil: Agribusiness, deforestation and climate change

The present development model has been strengthened on the basis of large-scale models – production, marketing, consumption – and the activities sustaining it are also on a large scale and basically involve intensive land use. They are the causes of the greatest problem presently hanging over an unconcerned humanity: the stepping up of greenhouse effect gas concentrations in the atmosphere, responsible for climate change.

One of these industrial economic activities is deforestation – generally to obtain timber and/or gain land for industrial cattle ranching or industrial monocrops (food, fuel or trees).

Every time vegetation is burnt or decomposes, it causes the emission of carbon contained in leafs and stalks, released as carbon dioxide, one of the greenhouse effect gases. When this is a natural process, re-growth balances the net carbon emissions but when a forest is cut down and land use change takes place, the atmospheric concentrations of carbon dioxide increase enormously. Deforestation implies the total elimination of the ground biomass, including tree trunks, stumps and roots. Giving over forest lands to industrial agriculture makes them one of the least efficient ways of absorbing carbon from the air.

Presently, most of the net emissions from deforestation take place in tropical regions and the expansion of large-scale mechanized agriculture is one of the most important factors involved in forest loss. According to data from a PNAS report (1) in the nine States of the Brazilian Amazon, industrial agriculture increased by 36,000 km2 and deforestation totalized 93,700 km2 between 2001 and 2004. The report reveals that the strengthening of industrial agriculture for the production of commercial crops in high demand – such as soybean – has been done at the expense of Amazon deforestation, presently the greatest source of CO2 emissions in Brazil.

Furthermore, deforestation is generally the direct or indirect result of government policies. This appears – although not at a first glance – in the information given in Brazil on the stepping up of deforestation in the Amazon during the month of August: 75,600 hectares against 32,300 in July. The Ministry of the Environment submitted a list of the "100 greatest deforesters" between 2005 and 2008. The first six places are taken by the settlements of the National Institute for Settlement and Agrarian Reform (Instituto Nacional de Colonización y Reforma Agraria - INCRA) – which met with a broad and sly smile from agribusiness.

The Brazilian professor, Ariovaldo Umbelino de Oliveira, from the University of Sao Paulo, makes a very revealing exposé of the reasons concealed behind these figures and affirms that the guilty party is the official agrarian policy itself.

"The government" points out de Oliveira "in its political decision not to confront agribusinesses that are part of its parliamentary support, did not implement the agrarian reform in areas where the encampments [of people demanding land] are located and preferred

to concentrate it in the Amazon. A total of 307,000 families were settled in the Legal Amazon between 2003 and 2007. This is the primary reason for separating the defence of agrarian reform from the defence of the policy implemented by INCRA. The agrarian reform will continue being supported because it is the way to achieve food sovereignty. However, INCRA's policy is not the way. It must be severely criticised for the mistake it contains: that of not assuming the need for agrarian reform throughout the country.

INCRA's agrarian reform policy is marked by two principles: not to implement it in areas under the direct domination of agribusiness and to implement it in areas where it can "help" the expansion of agribusiness. That is to say, the agrarian reform policy of the present government is definitely linked to the expansion of agribusiness in the country. This is the second reason to separate the defence of agrarian reform from the policy adopted by INCRA.

The settlements in six municipalities in the State of Mato Grosso, the absolute champion in Amazon deforestation, are located exactly on one of the fronts of the territorial expansion of cattle-raising. Therefore INCRA is responsible because it does not have any policy to follow up on these settlements. It is a common practice for the settlers to sell their plots illegally to agribusiness which, in order to "buy" them, requires them to be totally cleared. They do this so that the responsibility for felling is placed on the settler and on INCRA. Another trick is to hand over cattle to be raised jointly by the settlers. In both cases, the forest is cleared to give place to pasture-land for cattle-raising.

The same processes take place in the settlements implemented in the locality of Cotriguaçu covering a total area of 141,000 hectares. According to the Ministry of the Environment, over 46,000 hectares of forest were felled to give way to grazing and to cattle-raising. In the Bordolândia settlement, the picture is identical.

In the locality of Querência, the settlements cover an area of 101,000 hectares and in Nova Ubiratà they cover 48,000 hectares. These two localities are at the forefront of the territorial expansion of cattle-raising and soybean plantations. There the clearing of over 30,000 hectares of forest took place because of the pressure of the cattle and soybean agribusiness in regions where clearcutting is practically total. It is obvious that the process could not have taken place without the participation or omission of INCRA.

The way in which the Ministry of the Environment made public the information should also be criticised as on the list, next to individual owners, are entire settlements giving the impression that the responsibility is that of the agrarian reform, which is not true. When the total area deforested is divided by the number of families settled, it may be seen that on average it is less than 70 hectares. Therefore, those main responsible for felling the Legal Amazon continue to be the big cattle ranchers and soybean growers who take over the land, either illegally or not." (2)

(1) "Cropland expansion changes deforestation dynamics in the southern Brazilian Amazon", http://www.pnas.org/content/103/39/14637.full.pdf+html?sid=ca32002c-b059-479b-9729-688006d4ffd1

(2) [Text extracted and adapted from: "A Amazônia e a reforma agrária de novo no banco dos réus", Adital, http://www.adital.com.br/site/noticia.asp?lang=PT&cod=35400]

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- Colombia: Criminalization, a mechanism to ensure unfair "development"

In Colombia the State resorts to criminalizing social and grass-roots organizations as a method of repression aimed at imposing by force the global market's agribusiness, large scale infrastructure works and the extraction of natural resources involving high human, social and environmental costs.

Criminalization has been an effective method whereby – by using discursive and symbolic strategies, combined with the formal use of legality – social actors are delegitimized and penalized for opposing unjust working conditions, environmental destruction, and policies damaging the survival of the planet, subordinated to corporate profitability and earnings.

Accusations, breaking up relationships between society and social movements and legal questioning of social expressions have been famous in Colombia since the thirties. The demonstrations by banana plantation workers who were accused of being “communists,” ended in a collective massacre promoted by a United States banana company. In the fifties and sixties the peasant movement demanding land was criminally attacked and bombarded and unjustly brought up before the courts. During the seventies, an urban and rural demonstration linked to a National Civil Strike was drowned by indiscriminate killings of demonstrators, followed by torture and trials of civilians in military tribunals. Or in the eighties, when members of social grass-roots peasant and Afro-Colombian organizations were murdered, forced off their lands, pushed into exile or exterminated by paramilitary forces and the survivors later brought up for trial, accused of terrorism.

Today, while interests focused on the world market are located in those territories, the social expressions of resistance by rural inhabitants, among them the survivors of the State’s systematic violence, are subject to further violence and criminalization with the use of multiple strategies to ensure they are under control or that they consent to “development” models.

In the North of the Choco in the Colombian Darien area, the destruction of primary and secondary forests started with a violent military operation under the name of “Genesis,” which resulted in the displacement of Afro-Colombian peasants –accompanied by 80 documented crimes- and the installation of a paramilitary base where the Maderas del Darien company (a branch of Pizano S.A) established itself. The leaders who bravely denounced these actions against the collective territories where they lived were subject to death threats, to being set-up in the mass media and sent to trial for rebellion and drug trafficking. Those responsible for what was known as ecocide in the mid-nineties and for other crimes were never investigated. The companies deforested the land, which was never returned to its owners, the military officers were promoted and the paramilitary forces, together with national politicians developed new agribusinesses. The communities were criminalized and stigmatized.

In that same region, in the bio-geographical Colombian Choco, the watersheds of the Curvarado and Jiguamiando - declared a natural reserve in 1959 - are an example of the use of official – military and paramilitary – violence for the implementation of oil palm agribusiness and the spread of cattle ranching. Starting in 1996 when President Alvaro Uribe Velez was governor of the Department of Antioquia, the 17th Brigade of the national army and the paramilitary forces launched a persecution against Afro-descendent and indigenous inhabitants. More than 140 peasants were murdered or went missing and 40 community leaders had court action brought against them, including capture orders for the crime of rebellion. These facts together with the death threats, the economic blockade, the abuse of power, the bombing and the ransacking of local peoples’ means of survival, led to 15 forced mass displacements of hundreds of families.

This violence has made it possible for over 23,000 hectares of collective territory to be appropriated illegally by oil palm growers, cattle ranchers and loggers linked to State criminality, paramilitary forces and money laundering. This dispossession of land has been accompanied by intensive deforestation of primary forests in over 10,000 hectares, the drying up of five rivers and the contamination of streams by agrochemicals, causing serious health problems particularly affecting women and children.

Criminalization can only be understood as part of a repression mechanism, the violation of human rights and an attempt to exert social control, clearly associated today with business in these territories.

In Colombia, according to Human Rights organizations, over the past 15 years, close on 4 million people have been forcefully evicted from their lands by armed operations involving State responsibility and 14,000 crimes against humanity were committed between 1988 and 2003 . Organizations of missing people’s families indicate that over 15,000 people have disappeared with the use of force . Nearly 7 million hectares of lands have been illegally appropriated by paramilitary forces or drug traffickers in the past 15 years, very often after having forced the inhabitants to leave .

The policy of democratic security and construction of a community State, launched in 2002 by the Uribe government, boasts that it has moved away from the National Security Doctrine and that it has zero tolerance of Human Rights violations. Such statements are no more than reengineering advertising of the old repressive military and police practices. Between 2002 and 2006, close on 6000 illegal and arbitrary arrests were made, together with nearly 1000 murders by the armed forces. Many of these victims are depicted before the mass media as having died in combat.

The Colombian State justifies the use of violence against peasants, Afro-Colombians, indigenous peoples and trade-union and social leaders, under the pretext that they are persecuting guerrillas or drug trafficking. But these attacks usually favour the economic interests of national and international companies engaged in agribusiness, infrastructure works and extraction of natural resources. These companies also protect themselves against criminality or use it to support their interests.

Actual violence is accompanied by practices such as false incriminations and accusations in the mass media, leading to criminal prosecution. Organizational processes affirming the right to a healthy environment, the respect of biodiversity and to collective territories are penalized to ensure investment.

Since October 2008, demonstrations by indigenous Nasa people in the Departments of Cauca and Putumayo against the signing of Free Trade Agreements and in favour of respect for biodiversity and the territories have seen two murders and over 200 people injured. High government officials have delegitimized the indigenous movement, accusing it of being led by FARC guerrillas. These accusations are not new and for some time now indigenous leaders have been set up in legal proceedings.

Recently sugar cane workers launched a strike to question the national energy policy and the absence of labour guarantees and were the target of false accusations. Three of them were later arrested.

Criminalization in the mass media and in the courts is part of repressive mechanisms and of a formality to legitimize the violation of Human Rights. This is part of an attempt to ensure territorial privatization for businesses focused on the global market, to destroy opposition, impose silence and social consent to an unfair “development” model.

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- Congo, DR: Doing away with forests, people and climate through logging

DRC’s rainforest --the world’s second largest-- is disappearing through logging. According to a report from The Guardian (1), “today a dozen large, mostly European, companies dominate the industry and have vast concessions: Trans-M has Lebanese owners; another group, which controls around 15m acres, is owned by the Portuguese Trinidade brothers; the American Blattner family has more than 2m acres; the German Danzer Group has 5m. To make worthwhile the tricky task of exporting wood over the rapids near the capital city of Kinshasa, the demand is for the highest quality wood for European kitchens, floors and furniture. Peace has exacerbated the problem, opening up the forest to smaller companies.”

Most logging concessions were granted in spite of a national moratorium on logging titles since 2002 and in violation of the new forest laws. The companies know they will be able to appeal, and log, for many years.

The forest provides food, medicines and building materials to two-thirds of the people in Congo --40 million people. DRC’s rainforest is also one of the biggest stores of carbon in the world. However, the companies are being encouraged to take what they can. A flawed World Bank-financed review of the legality of 156 logging contracts has otherwise increased the peril as some 46 of the total contracts were converted into legal concessions --33 of which were granted after the 2002 moratorium was already in place. (2) With no social and environmental criteria, the review process ignored the impact on local people's livelihoods. Most concessions were granted in areas inhabited by people dependent on the forest, many have Pygmies living in them, and a third is in areas identified as vital for conservation. Also the global significance of tropical forests in stabilizing climate change and protecting biodiversity was ignored. (3)

In 2003, Safbois, a part-American, part Belgian-owned conglomerate, was awarded a more than 100,000 square miles concession to log the forest for the precious African teak. Local communities condemn the company which they say will profit from their trees while providing little or nothing for them: their hunting grounds are being destroyed, their access to wild food denied, there are few jobs, they pay is meager.

The Guardian's report explains that: "The system of concessionaries offering gifts to communities in return for permission to log is now the basis of the whole forestry operation in Congo. Isolated communities, which have seldom had contact with outsiders, are being persuaded to sign away, for just a few machetes and bags of salt, the rights to the forests on which they have depended for millions of years. One company gave a community 18 bars of soap, four packets of soup, 24 bottles of beer and two bags of sugar. Another signed a deal for 20 sacks of sugar, 200 bags of salt, 200 machetes and 200 spades. In Orientale province, another company promised a school, a clinic and enough wood to provide for their coffins."

"Concessions are being given out, and the villagers are not being told what the chiefs are signing up to. Communities are in chaos and there is more and more social conflict. It is a cruel system that continues the injustices and atrocities of the colonial system but it is even worse because it deprives communities of their resources and consigns them to perpetual poverty."

A World Bank official spoke anonymously: "Clearly the companies are the root of the problem. They are taking advantage of the chaos. They exploit the poor. It's normal. They are businessmen. It's a very small group of people who get rich and the very large group stay poor. Because the government is weak, it cannot take them on. Nothing much has changed since King Leopold's day. All this started in colonial times. The government continued the same old ways after independence. It's still a system of colonialism."

Companies say they want to take just a few trees, but "to take out just one valuable tree requires roads to be built deep into the forest, which means hundreds of other trees are cut or smashed down - often the very ones that the communities use and need for medicines and foods. The companies do not replant - the trees they cut down may be 100 years old - and they leave the forest vulnerable to floods of hunters and other farmers moving in to pull down more."

The forest is gone forever, and the companies take everything, "including the chance to develop", as a local regrets.

Additionally, industrial logging is also a major contributor to climate change. By churning and compacting the soil logging releases stored gases, and quickens its breakdown when it's exposed to oxygen. When logs are removed from a forest, a high percentage of the carbon remains in the "waste" --dead plants, unwanted trees, branches, stumps, roots-- that decomposes and sometimes is set alight, releasing large quantities of CO2 to the atmosphere. Logs are transported in trucks that drive thousands of kilometres daily producing millions of tonnes of greenhouse gases. Logs exported as roundwood or converted into planks or woodchips are then shipped to markets abroad in huge tankers that add more tonnes of carbon emissions.

In spite of all the above, the same old colonial concessionary system "is now accepted by the World Bank and western governments. It deprives millions of people of their resources, encourages corruption, prevents development, divides communities and contributes to climate change. The real scandal today is that, for a few square metres of flooring, or a kitchen door, or a bedpost, the second greatest forest in the world is being destroyed, probably for ever".(1)

Sources:

(1) http://www.guardian.co.uk/world/2007/sep/22/congo.environment
(2) http://www.greenpeace.org/usa/press-center/releases2/greenpeace-exposes-impacts-of
(3) http://www.greenpeace.org/usa/news/carry-on-up-the-congo-2

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- Costa Rica: Grass-roots resistance to open cast mining in Crucitas

On 17 December 2001, by Resolution # R-578-2001-MINAE and in a totally underhand manner, the Costa Rican Ministry of the Environment and Energy (MINAE) granted a concession for the exploitation of an open-cast goldmine using leaching with cyanide to Industrias Infinito S.A. a branch of the Canadian transnational corporation Vanesa Ventures.

The plans of Industrias Infinito S.A. are to exploit an area of 18 square kilometres in Crucitas, in the north of the country, between the

mountains La Fortuna and Botija, some 3 km from the San Juan River. This involves the felling of over 190 hectares of forest (including species that are protected such as almond trees) because, as described by the journalist and opponent to the project, Marco Tulio Araya:

“Mining activities do not allow for any trees to remain standing, the trees must be clear-cut that is to say the mountain must be left bare to start digging and take out the rocks containing gold. Roughly a ton and a half of rock are needed to obtain one gram of gold. In order to obtain one kilo large amounts of material need to be ground and liquefied using millions of litres of water with cyanide, because cyanide acts as a magnet to the microscopic gold particles. A mine extracting gold and other metals using this procedure known as leaching requires as much water per hour as a peasant family uses in 20 years. To obtain such a quantity of water the company buys up the farms around the mine so nobody accuses it and diverts the streams to join them up, which is something clearly illegal. The water -contaminated with cyanide residues- that is no longer necessary goes to big lagoons where it continues poisoning any animal that drinks it. Sometimes the company puts up warning notices, but as neither the birds nor the animals know how to read, death and destruction continues.”

The cost is very high: it is not only the landscape of Las Crucitas that will be destroyed, but also no less than 32 neighbouring communities and the San Juan River, neighbouring with Nicaragua, will also be affected.

As in Costa Rica clear-cutting is banned and the only exception allowed is for National Convenience projects, after various comings and goings, the open-cast mining project ended up by being considered to be of “public interest” in order to get it approved. But the people of Costa Rica ask themselves what public usefulness is being referred to when mining brings destruction, contamination and more climate change.

It has been clearly shown -and communities affected by mining all over the world can testify to it- that mining is a short-term activity but with long-term, extended and generally irreversible destructive effects. One of these effects is to contribute to climate change, both through the deforestation it generally involves – as is the case in Costa Rica – and because it is an industrial activity requiring a large amount of energy for its operation, mainly coming from the burning of fossil fuels (coal, gas or diesel), with emissions causing climate change.

Ever since the Government of Costa Rica issued the declaration of public interest, the ecologist and social movement led by the organizations and communities of the North Zone have been carrying out a struggle against the project, with wide support from the general public.

Coecoceiba – Friends of the Earth Costa Rica reports that “The struggle against the Crucitas project has been going on for over fifteen years, thanks to the communities from the north zone. Over these fifteen years, they have managed to reject environmental impact assessments, enormous companies such as Placer Dome and to build up a strong social web that today once again unites to resist and overcome a further onslaught against the communities and their environment.”

The Costa Rican people have reacted strongly against what they consider to be an environmental crime, showing up the duality of the Government’s policy: “The present Government has two policies regarding the environment. One that it shows on an international level, maintaining that environmental conservation must exist, that the world is in danger due to the environmental collapse, among other universally accepted phrases. Around the world, the “Initiative of Peace with Nature”, carbon neutral and “Costa Rica for Ever” have become an important part of the foreign policy whereby the country attempts to position itself in diverse fora while requesting financial resources. The country’s internal environmental policy, its everyday policy, is in contradiction with the other. This second policy is the one advocating deregulation, eliminating the requirement of environmental impact assessment to more and more activities to determine if they are feasible. This is the policy that defends tooth and nail that an open-cast mine with cyanide leaching is compatible with the environment and to achieve this, they recite the old and outdated formula that “the project is viable from a social, economic and environmental standpoint.” (see http://www.feconcr.org/index.php?option=com_content&task=view&id=1382&Itemid=76)

A "March for Life" was organized in Quezada City on November 14th to express the peoples' opposition to destructive projects. People from communities in the vicinity of the mining `project came together to demonstrate against open-cast mining and to demand the repeal of the decree. The march was followed by a cultural activity.

Many organizations have filed an application for enforcement of rights, demanding that the permits granted be reconsidered and cancelled. From neighbouring Nicaragua, the events are being followed with concern as there are communities in this country that would be affected by the open-cast mine.

Indignation is great and resistance grows.

For more information, visit the webpage of the anti-mine campaign in Crucitas: http://fueradecrucitas.blogspot.com/

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- Dams on the Mekong mainstream would destroy fisheries for millions

"The Mekong matters to the people who live round it perhaps more than any other river on earth," wrote Fred Pearce in his book about the world's rivers, "When the Rivers Run Dry". Something like two million tons of fish are caught in the Mekong River each year, second only to the Amazon. In Cambodia, 70 per cent of villagers' protein comes from fish. The Mekong is also extremely diverse, with about 1,300 species of fish, again second only to the Amazon.

The Mekong's flow is the most variable of any major river in the world. During the monsoon, it contains up to 50 times as much water as during the dry season. This variability is crucial for the fisheries in the Mekong. Every year, as the monsoon rains turn the Mekong into a raging torrent, the water in the Tonle Sap tributary in Cambodia reverses flow and floods a vast area, called the Great Lake. The flooded forests are an incredibly productive ecosystem. Billions of fish fry are flushed into the lake to feed on floating vegetation. An enormous fishing industry exists on the Great Lake.

Overfishing is a threat to this fecundity, but the biggest threat is a cascade of dams planned for the mainstream of the river. China has already build several dams on the upper Mekong and more are planned. In recent years, Laos, Thailand and Cambodia have been dusting off plans first dreamed up decades ago for ten dams on the mainstream Mekong.

In February 2008, the Lao government signed a project development agreement with the Mega First Corporation Berhad, a Malaysian engineering company, to build the Don Sahong dam. The dam would block the Hoo Sahong channel "with devastating consequences for fisheries and fishery-based livelihoods locally and throughout the wider Mekong region", notes a new report by International Rivers about dams in Laos.

Two months before the Don Sahong agreement was signed, more than 200 NGOs from 30 countries (including WRM) wrote to the Mekong River Commission, the inter-governmental body that is supposed to manage development on the river. The NGOs complained that "Despite the serious ecological and economic implications of damming the lower Mekong, the Mekong River Commission has remained notably silent. We find this an extraordinary abdication of responsibility." In February 2008, the MRC appointed a new chief executive officer, Jeremy Bird, a Chartered Engineer. The MRC's silence on mainstream dams has now been replaced by open support.

"The dramatic fluctuations in oil and gas prices over the last year and the growing evidence of change in the planet's climate have focused global attention on the need for sustainable sources of clean energy," Bird wrote in the Thai newspaper The Nation in September 2008. The Mekong River is "a source of enormous collective energy potential", Bird wrote. "To date only around 5 per cent of that potential has been realised."

As Patrick McCully of International Rivers points out, dams are not sources of clean energy. "Dams and reservoirs are major global sources of global warming pollution," McCully said last year in a presentation at the Commonwealth Club of California. Organic matter rotting in the reservoirs behind dams emits carbon dioxide, methane and nitrous oxide. More emissions come from the huge amount of cement used to construct the dams and from land clearing and road building related to the construction. McCully points out that emissions from dams in the tropics are comparable to, and in some cases far higher than, emissions from an equivalent sized fossil

fuel power plant.

In September 2008, the MRC organised a meeting in Vientiane to discuss the proposals to dam the lower Mekong. None of the millions of people who will be affected if the dams are built were invited to the meeting. Bird explained to a journalist from Inter Press Service that he did not see that as a problem. In any case the meeting took place in English and "in an environment that the communities are not familiar with". Bird added that "What is important for us is to understand the concerns and the problems of those communities and we can do that in a number of ways."

While Bird acknowledged that "the issue of fish migration has become central to the discussions," he did not think that this should stop the dam building. According to Bird. "[T]here will be tremendous efforts now targeted towards first of all avoiding those impacts; if that is not possible, to them minimise what they are and to then mitigate to the extent possible."

The damage caused by blocking the Mekong with concrete and dramatically altering the river's seasonal flows cannot be mitigated. Justifying building these dams by claiming that they are climate-friendly, as Bird does, is truly "an extraordinary abdication of responsibility". Already, fisheries in the Mekong have been severely affected by the upstream dams in China. Building dams on the lower Mekong would destroy the fisheries completely. In turn it would condemn millions of people to serious food shortages and increased poverty.

By Chris Lang, http://chrislang.org

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- Ecuador: Government will hand over mangroves belonging to the Ecuadorian people to the shrimp farming industry

On 15 October, the President of the Republic, the Economist Rafael Correa Delgado, and four Ministers of State issued Decree 1391 regulating industrial shrimp farming.

The Decree is contradictory, because on the one hand it recognizes the illegal situation in which thousands of hectares of shrimp farms have been operating, together with the felling of mangroves resulting from this industry. But on the other hand it ends up by rewarding the shrimp farming industry by granting it concessions in areas that are a National Asset of Public Use (see http://www.ccondem.org.ec/imagesFTP/6940.DECRETO_1391_10_2008_1_.pdf), thus violating 56 legal provisions that have protected the mangrove ecosystems since the seventies.

The measure of “regulating” illegal actions (which in practice will be legalized) sets a precedent of legal insecurity regarding environmental issues and regarding guaranteeing the Economic, Social, Cultural and Environmental Rights of the Ancestral Fisher-folk and Artisanal Gatherer Peoples of the Ecuadorian coast, who have been violently displaced from their territories and who have insistently requested the various Governments in office to give back the mangrove ecosystem areas occupied with impunity by the shrimp farming industry.

Will Ecuadorian mangroves fall into private hands?

The mangrove ecosystem is one of the five most productive ecosystems in the world. Alarmed by its destruction, Official Records No. 722 of 6 July 1987 declared as protective forests 362.802 hectares of land covered by mangroves, other forest species and saline areas located in 5 hydrographic systems on the Ecuadorian coast.

A study made by the Centre for Integrated Surveying of Natural Resources by Remote Sensing (CLIRSEN) in the year 2000 reveals that 254,503 hectares had been felled, the equivalent of 70% of the original mangrove areas. Furthermore, the Third Agricultural and Livestock Census of 2001, showed the existence of 234.359 hectares of shrimp farms.

Traditionally, Ecuadorian legislation has prohibited mangrove felling, burning or destruction. It penalises mangrove destruction by levying fines, ordering restitution of the entire area destroyed and even by prison sentences.

However, the recent Decree 1391, completely demolishes current legislation, in an attempt to reward shrimp farm industrialists that have destroyed mangroves and with them, deprived the local communities of their source of sustenance and livelihood, consenting to the reforestation of a minimum percentage of the area destroyed, absolving the industry from paying fines and from criminal penalties.

Decree 1391 not only violates Laws and Codes, but above all the Constitutional text, approved by the majority of the Ecuadorian people on 28 September 2008. The new Constitution, applauded at international level because it sets out a progressive constitutional text, establishes a series of Nature rights, Water rights and rights of the People, that have been violated by this Decree.

And what if mangroves were to become extinct?

The Ancestral Peoples of the Mangrove Ecosystem live in an intimate relationship with their natural ecosystem which is their source of sustenance and life. The ecosystem not only benefits local communities but fulfils essential ecological functions for the planet. The terrible scenes of the Asian tsunami (December 2006) should be remembered when, after felling the natural protective barrier and windbreak curtain formed by mangroves, entire villages were wiped out and thousands of people killed or seriously injured, not to mention the enormous damage done to material goods.

Mangroves are also important in desalinization of waters entering the continent, enabling land to be used for agriculture and therefore for food production which, together with fish and shellfish – that shelter among the mangrove roots during spawning and the larval stage – are our population's main source of food.

Our food sovereignty would be seriously affected by the privatization of our coasts and their handing over to the shrimp industry, because the fantastic crustacean it produces is solely aimed at feeding the North, given that farmed shrimps are not consumed in the producer countries: they are export goods.

Standing mangrove ecosystems feed our population and generate decent jobs for local communities who day by day have seen the fish, crab and shellfish banks decrease. Their natural habitat is disappearing at the speed of the mechanical arm of a digger that in just a few days transforms a rich and lush thousand-year old mangrove into a shrimp pond.

The ancestral peoples of the mangrove ecosystems demand the abolition of Decree 1391 and penalization of the shrimp farm industry that has usurped mangroves, a fact that has been recognized in this same Decree. This demand is set out in the Manifesto of the Ancestral Peoples of the Mangrove Ecosystem against the Regulation and Certification of the Captive Shrimp Industry.

By Verónica Yépez, C-CONDEM, e-mail: veroy@ccondem.org.ec , www.ccondem.org.ec

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- India: Forest dependent Vangujjars harassed by local government

Vangujjars, a distinct nomadic tribe with a very rich cultural heritage has been living scattered in the Indian upland forests of the Uttrakhand since the last three centuries. They still maintain nomadic life with their buffaloes and travel between higher reaches of Himalaya in summer to lower Himalaya in winter. They have always received step motherly treatment by all the governments whosoever ruled Uttar Pradesh or Uttrakhand. But from October 2008 the attack on vangujjars has become more intensified and blatant. More than 100 hutments were totally smashed by the Rajaji National Park administration.

The Scheduled Tribe and other Forest Dweller (Recognition of forest rights) Act 2006, popularly known as Forest Rights Act was enacted by the Parliament on 15th Dec 2006 and enforced on 1st Jan 2008. All the states were bound to enforce this act in their

respective states by passing Government Orders to all the districts. But no such enforcement of the act has been done by the Uttrakhand government. No Government order has been issued and neither the government is showing any political will to implement this act despite the fact that Uttrakhand has more than 65% forest cover and around 80% of its population is entirely dependent on the forest.

Now the Rajaji National Park, which is the famous tourist spot for the middle and upper class people of Delhi and Dehradun, has become the battleground of forest dwelling communities versus the forest department. The forest department planned to evict around 500 families this October and targeted the “deras” (hutments) of the leaders of vangujjars who were active in forming their organization and fighting a legal case against eviction by forest department in High Court. The goons of forest department have attacked and smashed their “deras” scared little children and women, looted their belongings and thrown them out of the forest mercilessly. Even four youth were arrested on false charges, while they were grazing their animals.

The vangujjar community of the Rajaji national park has been fighting a very long battle since 2004 for recognition of their rights. The park authorities have only recognized 512 families and have resettled them in Pathri, Hardwar which is not built according to the needs and environment of this tribal community.

The National Forum of Forest People and Forest Workers (NFFPFW) on behalf of vangujjars filed a public interest litigation. The Honorable High Court in a historical judgment ordered the Uttrakhand State government to implement the forest rights act 2006 within 60 days by forming the forest rights committee so that the rights of the vangujjar could be settled according to the act.

The delay in enforcement of the act created lots of problems for the vangujjar community as the new park director S.S Rasily was much more ruthless than the one before. His only mission was to throw the vangujjars out of the forest without settling their rights. Even after all such orders in their favor, the vangujjars faced the worst eviction ever in October 2008.

The forest department staff with the local police stations used massive police force to evict the tribal community.

On 3rd November 2008, thousands of vangujjars, forest villages and other forest dwellers from 11 districts of Uttrakhand challenged the State government and protested in front of the State Secretariat at Dehradun to stop such illegal evictions, implement the forest rights act immediately and reestablish all the 110 evicted families in Rajaji National Park. The forest communities have announced that if their demands are not met they will start the movement to reestablish their “deras” in their original place from 16th November 2008 onwards. Ashok Chowdhury the founding member of NFFPFW observes that “If the situation is not handled properly by the State government then it may turn into a serious conflict between the forest dwelling communities of Uttrakhand with the State”.

Resumé from the longer article by Roma, at http://www.wrm.org.uy/countries/India/roma.html , NFFPFW (Kaimur) / Human Rights Law Centre, Purab Mohal, Email : romasnb@gmail.com / hrlkaimoor@gmail.com

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- Mexico: Mining causes ecocide in Coahuayana, Michoacan

The Italo-Argentine mining company TERNIUM is planning to mine for iron minerals in nearly 2,000 hectares of tropical forest in the Municipality of Coahuayana in the State of Michoacán (south-western Mexico). Among other negative impacts, this activity will leave the whole Municipality (15 thousand inhabitants) without water. The El Saucito River has already felt the consequences as have the mountains and forest, and the villages of Santa Maria Miramar, El Saucito, La Palmita, El Parotal and Achotan are already suffering from the effects and have asked the authorities to declare a Municipal Ecological Conservation Zone.

The communities have denounced that “the company entered the territory to destroy our source of life – the mountains, the forest and the river El Saucito. Trees that were over one hundred years old, cedars, rosamoradas, mojos, ceibas and many other species have been felled.” “With the felling they have caused landslides with thousands of tons of silt and stones ending up in the river, in addition to the oil they use for their machinery.” In their letter of complaint to the authorities, the communities consider this damage as “ecocide.”

In ecological terms the company has already caused serious damage to the Municipality of Coahuayana in the process of collecting, storing and releasing the rainwater that supports life in this zone. For this reason the population is opposing any activity at the La Colomera mine by TERNIUM as they have observed over the past months how mining works have accelerated pollution of the El Saucito River and the forest and all the living beings that inhabit it. According to them "they are part of our very selves as communities. This company is a stranger in this land and doesn't care if it destroys the forest and the river." The communities' greatest concern is that "in ten years time we will have become practically lifeless villages."

The ecosystem the local population is defending is an area of incalculable ecological value as it is a natural transition system between the tropical forest ecosystem and the pine and oak forests and acts as a regulating mechanism for the water cycle. Furthermore, it is known that these forests contribute to balancing global climatic phenomena such as the greenhouse effect and global warming by trapping and storing carbon dioxide. This is very significant considering that this vegetation grows very fast thanks to the tropical climate.

The forest is also the ultimate refuge for endangered fauna, which is already feeling the effects of this ecocide: river otters (*Lontra longicaudis*), long-clawed freshwater prawns (*Macrobrachium spp*), parrots (*Amazona finschi y oratrix),* white-tailed deer (*Odocoileus virginianus*), and the ocellated turkey (*Meleagris ocellata*) – which in fact was considered to be extinct but is still to be found in the area – are examples of this.

At the beginning of 2008, the TERNIUM mining company has entered the territory of the Municipality of Coahuayana with the intention of working the iron mine in the vicinity of El Saucito and Cerro de la Aguja. The authorities did not react to defend the interests of the communities although the company never notified the Municipality of the works nor did it have any kind of permit. For this reason, the affected parties lodged various complaints and insisted on getting an answer. Thus on 29 October representatives of the Federal Environmental Protection Prosecutor (Procuraduría Federal de Protección al Ambiente - PROFEPA) and from the mining company visited the area to check on the damage caused to the forest and river. However the inspection took place at night and only accompanied by representatives of the company, preventing participation by the communities that had made the complaints. The argument was that according to their regulations, there is no obligation to invite the complaining party, but only the accused party. That same day the regional representative of the Environmental Secretariat (SEMARNAT) stated that the "SEMARNAT agency in Michoacán has no record of any mining site in this Municipality, therefore there can be no type of permit to carry out work in this respect." However, on the contrary PROFEPA affirms that the company does have a permit, which the communities find suspicious.

For this reason, the inhabitants are making two appeals: first that the Northeast area of the municipal territory of Coahuayana ranging from the El Saucito river to the Cerro de la Aguja be declared a Municipal Conservation Zone, so that never again may any company or person feel they have the right to come and destroy the natural resources to be found in this forest and river. And secondly, that the concession to TERNIUM in the Municipality of Coahuayan must be cancelled.

Finally, the inhabitants state that:

"we do not want to negotiate, we do not want the money or the jobs promised by the company because there is no money nor any job that can pay for the life that is being destroyed there. We only want our right to clean water respected and our dignity and that of the forest respected."

In spite of the company's attempts to create social division and confrontation through false accusations against those resisting the mining works, the communities pointed out that resistance has been peaceful at all times and explained the following:

"We do not oppose the development of our Municipality, provided that this development is not a threat to our environment and to basic natural resources, such as water."

It is encouraging that little by little, the authorities are beginning to realize that the movement is advancing beyond their own expectations.

Signed by:

The inhabitants of the communities of El Parotal, La Palmita, Achotán, Santa Maria Miramar and El Saucito, members of the peaceful civil resistance movement against the La Colomera mine belonging to the TERNIUM company in the Municipality of Coahuayana

On this thirteenth day of the month of November of the year 2008

NO TO THE MINE, YES TO LIFE!!!

Note: In order to support these communities, you are invited to sign a letter of protest addressed to the local and national Mexican authorities, by entering www.salvalaselva.org Here you will find an action of protest by e-mail: NO to the death mining in Coahuayana, Michoacán, Mexico.

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- Nigeria: Gas flaring – major contributor to climate change and human rights abuses

Nigeria holds 11,700 square kilometers of mangrove forest: the third largest in the world and the largest in Africa. Most of this mangrove is found in the Niger Delta.

Nigeria is also a major oil producer and most oil extraction takes place in the Niger Delta. There, petroleum or crude oil abounds in rock formations. The complex mixture of hydrocarbons and other organic compounds that make up the flammable liquid fossil fuel is extracted from oil wells found in those oil fields.

When crude oil is pumped out it also drags associated gas with it. Such natural gas could be separated from the oil and be used but oil companies prefer to burn it off. Shell-BP was the first one to start with this practice in the 1960s.

Flaring of natural gas associated to oil extraction has been internationally acknowledged as a significant source of greenhouse gas emissions and a major contributor to climate change. In combustion, gaseous hydrocarbons react with atmospheric oxygen to form carbon dioxide (CO2).

Gas flaring also causes acid rain which acidifies lakes and streams and damages vegetation, produces air pollution, and can lead to leukemia or asthma and premature death.

Though the British government implemented domestic policies to reduce gas flaring to a minimum at home, the same criteria does not apply to British companies in Nigeria, where gas flaring is still carried out by Shell as well as other corporations that control oil business such as Agip, ExxonMobil, Texaco, TotalFinaElf and Chevron.

It's just a matter of money –and power. Of money, because in places that lack infrastructure to make use of the associated gas and are far from potential markets –as is the case with the Niger Delta mangroves- it's cheaper to simply burn the gas off, despite the damaging impacts. Of power, because transnational corporations have the leverage to impose their commercial interest over the health, livelihoods and human rights of local communities thus showing their disregard for people. Despite an Act passed in 1984 that technically declared that gas flaring was illegal, the oil industry still flares billions of cubic meters of gas a year.

Through chimneys, released gas is burnt bringing up sizeable non-stop orange glowing flames whose fumes and huge heat lead to mangrove destruction and degradation, and spread conflicts and death (see WRM Bulletin Nº 56).

In spite of being a major oil producer, Nigeria is among the world's poorest nations thus proving that oil based economies in Southern countries just enrich a tiny group of transnationals and local elites. Furthermore, the country suffers chronic energy shortages.

A huge amount of suffering, repression and death have accompanied the long-standing opposition to the impacts of oil production including pollution and gas flaring in Nigeria. Last September, during a community interactive forum on the impact of gas flaring at Iwherekan community, Delta State, Nigerian soldiers guarding gas flaring sites operated by Shell arrested about 25 persons attending the forum.

Among the detainees were community elders, women, children, members of Environmental Rights Action /Friends of the Earth and journalists from national newspapers and television stations including the Federal Government-owned Nigeria Television Authority (NTA); the camera of the NTA crew was seized and confiscated.

On November 14, 2005, Shell had been ordered to stop gas flaring in Iwherekan Community by April 2007. The rule of a Federal High court acknowledged that the practice of gas flaring violated the fundamental right to life and dignity and was the result of a suit filed on July 20, 2005 by Mr. Jonah Gbemre on behalf of himself and the Iwherekan community against Shell, Nigerian National Petroleum Corporation (NNPC) and the Attorney General of the Federation.

However, the company went on with the lethal practice of burning gas. People have expressed their concern and the arrest apparently was to intimidate the community and prevent environmentalists from their continued campaign for an end to gas flaring.

Nnimmo Bassey, ERA/FoEN Executive Director, declared: “This action has shown clearly that this government is not concerned about the impact of gas flaring on the livelihoods and health of Niger Delta people. It is also a clear evidence that what this administration has to offer for the genuine agitation of Niger Delta people for an end to gas flaring is, intimidation, crude force and cover ups. It is so sad that this has happened under a government that has gone to the roof top to profess its belief in the rule of law”.

Article based on information from: “Gas Flaring, LAC & Climate Change”, Keith R, Temas Actuales LLC, http://www.temasactuales.com/temasblog/environmental-protection/gas-flaring-lac-climate-change/ ; “Gas Flaring Disrupts Life in Oil-Producing Niger Delta”, Ofeibea Quist-Arcton, NPR, http://www.npr.org/templates/story/story.php?storyId=12175714 ; “Press Release: Environmentalists Denounce Arrests in Gas Flaring-Affected Community”, Environmental Rights Action / Friends of the Earth Nigeria, http://www.eraction.org/index.php?option=com_content&view=article&id=133:press-release-environmentalists-denounce-arrests-in-gas-flaring-affected-community&catid=9

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- Palm oil expansion for agrofuels: Burning all hope of stabilising the climate?

Two years ago, 5.3 million hectares across Indonesia were engulfed in flames in the worst fire season since 1997/98. Haze blanketed large parts of South-east Asia, hiding additional peat and forest fires in Malaysia. Over 75,000 fires burnt across Sumatra and Borneo. Peat expert, Professor Florian Siegert helped to analyse details from satellite images and concluded: “Most fires were set to clear land for plantations. Those burns often run out of control because the forests have already been damaged by illegal logging” (1). Similar fires now occur every year, though their scale varies depending on how long and dry the dry season is. Palm oil has become the main driver of peatland destruction, followed by tree plantations for pulp and paper.

According to Siegert, the carbon dioxide released by the 2006 peat and forest fires accounted for up to 15% of all global carbon dioxide emissions that year. This figure, however, gives only a glimpse of the true scale of the climate impacts associated with palm oil in South-east Asia.

South-east Asia peatlands account for 60% of the world's tropical peatlands and hold around 42 billion tonnes of carbon. Globally, peatlands play a vital role in stabilising the climate: As long as peat remains undisturbed and does not dry up as a result of climate change, it represents a permanent carbon store. Peat formation is one of the earth's ways of removing carbon dioxide from the atmosphere and thus an important 'global thermostat'. There is strong evidence that South-east Asia's peat swamps played a vital role in preventing more extreme and rapid global warming at the end of the last ice age. Nobody knows exactly why the warming at that

time did not run out of control and cause a mass extinction, as had happened tens of millions of years ago. After all, warming automatically results in more carbon dioxide being released into the atmosphere, particularly by the oceans. Much of that carbon dioxide must have been absorbed by soil and vegetation and we know that peat accumulation accelerated at the time, when those peatlands were much larger, due to lower sea level (2). Left intact, we could expect South-east Asia's peat forests to absorb some of the carbon dioxide which has already been emitted by fossil fuel burning and to mitigate climate change. Their destruction is thus a double whammy to the earth's climate: Once the peat is drained and logged, all of the carbon in the peat will 'oxidise', which means they will react with oxygen to form carbon dioxide. This process can take several decades, but it is greatly speeded up by fires. There is little hope that even a catastrophic 2ºC warming could be avoided if all the 42 billion tonnes of carbon in Indonesia's and Malaysia's peat goes into the atmosphere, regardless of any measures taken to phase out fossil fuels and end deforestation. Even worse, at a time of catastrophic climate change, one of the few ways in which the planet can eventually stabilise its temperature is being destroyed, putting the future of all life at even greater risk.

Already, 48% of the original 27 million hectares of peatlands have been intensively logged and drained and 3.7 have been completely destroyed. In theory, it should be possible to restore what remains of the drained peat, through re-flooding and reforestation. Several NGOs have begun a demonstration project, although anecdotal evidence suggests that this is not very successful due to a lack of community involvement. In reality, however, we can expect virtually all of the remaining peatlands to be destroyed, barring a u-turn in Europe's and other countries' bioenergy policies and the Malaysian and Indonesian governments' policies of promoting monocultures for agrofuel exports. In the past, Europe's use of rapeseed oil for biodiesel has been one of the main causes of palm oil expansion, since the food and cosmetics industry has responded by switching from rapeseed to palm oil. Palm oil use for heat and power, has been another serious factor. In future, it is likely that more palm oil will be used directly for biodiesel: Several large biodiesel refineries are being built specifically to use palm oil, including the world's biggest one, which Neste Oil is constructing in Singapore, while the US and Australia are increasing their imports for agroenergy.

According to Wetlands International, at least 15% of Malaysian and 25% of Indonesian oil palm plantations are now on peat. In Indonesia, over half of all new concessions for such plantations have been granted on peatlands. In Malaysia, the state government of Sarawak has recently allocated 400,000 hectares of peat swamp forests for plantations, mostly for palm oil (3). Peat forests are being targeted not least because virtually all of Sumatra's and most of Borneo's rainforests have been destroyed, hence the less accessible wood in peat swamps becomes attractive to loggers. Extra profits from the timber make oil palm plantations significantly more attractive and in some cases, palm oil and logging firms are part of the same company. Furthermore, government policies which promote palm oil for export, largely to serve Europe's growing demand for agrofuels, make it easy to obtain concessions to convert forests.

Peat forests are not the only frontier for Indonesia's palm oil expansion. Indonesia's last large continuous rainforests, in Aceh and West Papua are facing similar destruction. The Indonesian government has designated 9.3 million hectares of West Papua's forest for 'conversion', mostly for palm oil. So far, large concessions have been awarded but there are as yet relatively few productive oil palm plantations (4). As in Borneo and Sumatra, logging and plantation development go hand in West Papua, too.

According to Watch Indonesia!, 40 million people in Indonesia depend directly on the forest for their livelihoods. They are today paying the price for a false 'climate solution' which, instead of mitigating climate change, is one of the most effective ways of ensuring, that warming will run out of control.

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References:

1. www.berlinonline.de/berliner-zeitung/archiv/.bin/dump.fcgi/2006/1102/wissenschaft/0062/index.html
2. “A record of Late Pleistocene and Holocene carbon accumulation and climate change form an equatorial peat bog (Kalimantan, Indonesia): implications for past, present and future carbon dynamics”, Susan Page et al, Journal of Quarternary Science, Vol 19, Issue 2, 27th September 2004
3. “Malaysian palm oil: green gold or green wash?”, Friends of the Earth, October 2008, www.foei.org/en/publications/pdfs/malaysian-palm-oil-report

4. “Forests in Papua: Data and Facts”, Marianne Klute, Watch Indonesia!, 26.1.08, www.biofuelwatch.org.uk/docs/papua_article.pdf

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- Uruguay: Eucalyptus plantations degrade soils and release carbon

In spite of all the scientific evidence existing on the negative impacts of large scale monoculture tree plantations, the Climate Change Convention insists on promoting them under the false argument that plantations can alleviate the effects of climate change, acting as “carbon sinks.”

The negative impacts of monoculture tree plantations in forest areas have been thoroughly studied and documented in nearly all the countries where they are located. However, there is a tendency to minimize the negative impacts these plantations cause on grasslands, the main ecosystem of countries such as South Africa, Swaziland, Uruguay, the south of Brazil and vast areas in Argentina, where such monoculture plantations continue to expand.

This situation, explains Carlos Cespedes, a researcher at the Uruguayan Faculty of Science, is what encouraged him to undertake a study for his doctoral thesis, aimed at assessing the effects of the conversion of grasslands to tree plantations.

In a previous paper, this researcher had demonstrated that eucalyptus plantations have negative effects on grassland soils. In this study, Cespedes had verified that monoculture eucalyptus plantations cause a considerable loss of organic matter and increased acidity, associated to the alteration of the normal values of other physicochemical properties.

The soils of Uruguayan grasslands have an acidity level (pH) of approximately 6.5 – 6.8 (that is to say they are classed as “slightly acid”) although in the case of sandy soil grasslands, these values may be around 5.5. In the analysis of eucalyptus plantations on these same types of soil the results showed much lower values, situated at about 4.5 (values that are defined as “strongly acid”). To understand the importance of this figure it must be stated that pH is expressed on a logarithmic scale, where one point of difference in the pH (5.5 versus 4.5) is considerable. However, it is important to know that a pH of 5 represents a threshold, that is to say, above or below this value significant changes take place in the soil (which would not happen if the change were from 7 to 8 or from 3 to 4), such as changes in its Cationic Exchange Capacity (CEC), a property that is strongly linked to soil fertility as explained further on.

Acidity was higher in the first layer of soil (known as horizon A) and although it decreased somewhat in the deeper layers (horizon B), the pH was equally lower than in the grassland soil. The explanation for this notorious increase in acidity given by various authors is the extraction of significant amounts of calcium from the soil, which is accumulated in the tree biomass in the form of crystals (calcium oxalate). As would be expected, the low pH rate led to a notorious increase of aluminium in the soil, in concentrations that may be toxic for most native species of flora. As a result, certain species of plants that inhabit these soils now – following years under eucalyptus trees – find that soil conditions have become inappropriate for survival. However there are species that have managed to adapt themselves to the new soil characteristics, such as “Bermuda grass” (*Cynodon dactylon*), an exotic invasive species. For the microorganisms, these changes could be even more serious, due to the fact that they are very sensitive to physicochemical changes in the soil.

This more acid environment is a factor that also contributes to the spread of fungi, particularly basidiomycetes. These fungi generate a web of mycelia over the soil (the “body” of the fungi that can be seen in the soil as white filaments) inducing a phenomenon known as “water repellency” of the soil, preventing water from penetrating in-depth easily. This leads to a smaller infiltration to the water-table and a comparative increase in surface runoff, stimulating soil erosion.

The decrease in soil organic matter responds to various interrelated factors. Among them it is important to note that there is less incorporation of organic residues to the soil in a eucalyptus plantation than in the case of grasslands. The eucalyptus residues remain on the surface and due to their biochemical nature they are more resistant to biodegradation. Furthermore, the decrease also originates in the “exportation” made by the eucalyptus plantation of the organic matter originally accumulated on the soil by the

grassland.

The drastic drop in soil organic matter leads to a decrease in the Cationic Exchange Capacity (CEC). CIC expresses the capacity to retain mineral nutrients in the soil, that is to say, it determines its potential fertility. The research showed that the CEC decreased in horizon A due to the influence of the eucalyptus trees. This decrease in CIC in horizon A is serious, given that it is on this soil horizon that agriculture and livestock production is based. On decreasing organic matter and CEC, not only does soil fertility decrease but important negative effects take place in its structure, in the aeration and in biological activity among other phenomena.

Tree plantation defenders argue that the plantation of trees can even improve soils, although they sometimes add that this does not happen in well cared for, well managed, scantly degraded soils such as the excellent grassland soils of Uruguay. But they maintain that this soil improvement could take place in soils that are not as excellent.

However, another important finding in this research is that monoculture tree plantations also have negative effects on soils with a history of other agricultural uses. Not even in sandy soils – where according to the defenders of tree plantations all that could happen would be an improvement – has it been possible to prove this. According to the results obtained by Cespedes, tree plantations would be the worst option, even for this type of soils, as in their case, degraded by agricultural activities and abandoned, they would be re-colonized by herbaceous plants – many of these native species – that in a certain time-span would improve the soil considerably, which would not be the case if the soil were planted with eucalyptus.

But perhaps the most important finding of this research is that it shows that eucalyptus plantations on grasslands have a significant negative effect on the soil's carbon balance.

Lately, one of the most used arguments to justify large-scale monoculture tree plantations is that they can be used to improve the climate and counteract the greenhouse effect. It is argued that as the trees grow, they take carbon from the air in greater quantities than they release. According to this vision, plantations are defined as "carbon sinks."

However, this research has shown that this is false in the case of grasslands, which accumulate vast amounts of carbon, but of a totally different kind than that captured by tree biomass. Carbon stored by grasslands is called stable carbon (humic substances); this is a carbon reserve that can be stored there for hundreds or thousands of years, and that under certain conditions, can continue to increase. This organic carbon, initially captured by the live mass of grassland plants – mainly the roots – gradually progresses through soil organism activity to increasingly stable organic complexes. However, tilling, the use of agrochemicals and the plantation of exotic and fast growing tree species, destroy a major part of this reserve. As a result, the grassland soils reverse their role as "sinks" to become a source of CO_2 emissions.

Furthermore, carbon storage by plantations will last a relatively short time insofar as the trees will be felled, used or even – as happens frequently – will burn and release all the carbon into the atmosphere. In this respect, the promoters of the so-called "Clean Development Mechanism" affirm that although this carbon stored by trees does have a low mean residence time (MRT) it is a carbon that was already in the atmosphere (as carbon dioxide) and contributing to the "greenhouse effect." Therefore, its contribution is equally valid given that it does not use new carbon, but recycles an already existing one. This opinion could have some validity if tree plantations did not have carbon emissions from the soil as a counterpart, as has been proved in this research.

Cespedes' doctoral thesis not only shows that monoculture eucalyptus plantations degrade the soil in an irreversible way, but that they also destroy soils that act as enormous carbon reservoirs. Those encouraging such plantations will therefore need to invent new lies to promote them. And they have increasingly few left!

Article based on the doctoral thesis of Carlos Cespedes available at http://ethesis.inp-toulouse.fr/ , on interviews with the author and material from the article "Impacto de las plantaciones de eucalyptus en el suelo" (Impact of eucalyptus plantations on the soil) by Teresa Perez, available at: http://www.guayubira.org.uy/plantaciones/Cespedes.html

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WRM'S CONTRIBUTION TO THE DEBATE ON CLIMATE CHANGE

- Four recent WRM briefings related to climate change

As a contribution for facilitating the involvement of civil society in the protection of the Earth's climate, the WRM has recently published four briefings related to climate change:

"From REDD to HEDD" (*only available in English*) reflects on the mechanism currently being discussed at the Convention on Climate Change –REDD- to address carbon emissions from deforestation. The briefing exposes the uselessness of a carbon market-based REDD, which would enable Northern polluters to pretend to "offset" their fossil fuel emissions by helping to avoid deforestation elsewhere. At the same time, the briefing analyses the problems that could stem from a grant mechanism focused on "reducing" deforestation and calls for a totally different approach based on policies and commitments for halting deforestation.
(http://www.wrm.org.uy/publications/briefings/From_REDD_to_HEDD.pdf)

"Carbon Neutral Magicians" (*only available in English*) deals with the "offsetting" myth based on the cheating premise that the carbon released from burning fossil fuels –that have not been part of the functioning of the biosphere for millions of years– can in some way be "offset" by other activities such as tree planting. The document explains that fossil fuel carbon cannot be returned to its original storage place and that the more it is extracted, the more the total amount of carbon in the biosphere is increased. Effective climate action needs to reduce and eventually eliminate the use of fossil fuels. The "carbon neutral" game is a way of diverting attention from that very real and pressing issue and is exposed as a fraud.
(http://www.wrm.org.uy/publications/briefings/Carbon_neutral.pdf)

"GE tree research. A country by country overview" (*only available in English*). Genetically engineered (GE) trees have not only been explicitly accepted by the Convention on Climate Change to be used in so-called carbon sink plantations, but they are also perceived as possible sources for the production of ethanol for substituting fossil fuels. In this new briefing, WRM has put together information on all the countries where research on GE trees is being carried out in order to enable people in those countries to engage directly in this issue.
(http://www.wrm.org.uy/subjects/GMTrees/Briefing_GM_Trees_by_country.pdf)

"FSC certification of tree plantations needs to be stopped" (*also available in Spanish and Portuguese*). Certification of tree plantations has been a way of validating the expansion of tree monocultures -including so-called carbon sink plantations- in spite of their negative impacts on nature and communities. In this briefing, WRM provides arguments for the exclusion of industrial tree plantations from FSC certification.
(http://www.wrm.org.uy/actors/FSC/WRM_Briefing.pdf)

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