Plantations are *not* forests

World Rainforest Movement

General coordination: Ricardo Carrere
Edited by: Hersilia Fonseca
Cover design: Flavio Pazos

International Secretariat
Maldonado 1858, Montevideo, Uruguay
ph: +598 2 413 2989, fax: +598 2 410 0985
e-mail: wrm@wrm.org.uy
web site: http://www.wrm.org.uy

European office
1c Fosseway Business Centre, Stratford Road, Moreton-in-Marsh,
GL56 9NQ, United Kingdom
ph: +44.1608.652.893, fax: +44.1608.652.878
e-mail: info@fppwrm.gn.apc.org

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ABOUT THIS BOOK

This book gathers a selection of articles published in the monthly electronic bulletin of the World Rainforest Movement (WRM), addressing the issues of plantations and the struggles developed at the local and global levels against them.

The level of detail and analysis in the articles varies greatly, as a consequence of the nature of the bulletin, which is intended to serve as a tool, both for individuals and organizations acting on a local level and for those working on an international scale. However we have included most of the articles, as we consider that in some way they can all serve to raise consciousness regarding a subject such as this, that is increasingly affecting local communities in the South.

Most of the articles are the result of a collaborative effort between the WRM bulletin's editorial team and people and organizations working at the local and global level against plantations. We have not included the numerous sources of information on which the articles were based. However, those interested in obtaining them can access our web page, at "bulletin" section, searching by date (which appears as footnote at the end of each article).

Responsibility for this publication is shared between the WRM editorial team and the numerous individuals and organisations who contributed articles or relevant information for the preparation of articles. Errors that may have been made are the exclusive responsibility of WRM.

But what matters most is that beyond the authorship of the different articles, the true protagonists of this work are the numerous local communities that suffer the impacts of plantations and destruction of forests, who protect their forests and livelihoods and generate appropriate environmental and social alternative uses. The articles attempt to reflect the struggles of these protagonists, with the central aim of supporting them. To all of them, we pay our most sincere homage.

INTRODUCTION

Plantations are not Forests

Planting trees can be very good, but it can also be very bad. It all depends what you're planting them for, the scale and site of the plantations and the impacts or benefits they bring to local populations. Large-scale plantations (consisting of either fast-growth trees such as eucalyptus and pines or of other species such as oil palm) generate most negative impacts, both in social and environmental terms. Because of the kind of impacts caused by this type of plantation, resistance struggles against them have become generalized. The response of the firms responsible for these plantations and of the people who have promoted this model of plantation has been to deny such impacts and to elaborate and disseminate campaigns of disinformation designed to win them support amongst ill-informed sectors of the population. Among the many misleading statements being disseminated in favour of tree monocultures, the most outstanding is to confuse them with forests.

Forestry professionals and forestry firms insist on calling plantations "planted forests". This confusion between a crop (of trees) and a forest is the starting point of all propaganda in favour of tree plantations. In a world increasingly aware of the serious problems caused by deforestation, "planting forests" is an activity generally perceived as something positive. However, a plantation is not a forest and the only thing they have in common is that in both, trees are their more apparent component. There ends the similarity. A real forest contains:

- numerous species of trees and bushes of all ages
- an even larger number of other plant species, growing both on the forest floor and on the trees and bushes themselves (ferns, vines, epiphytes, parasites, etc.)
- a huge variety of species of fauna which find food and shelter in the forest and which can reproduce there.

Human communities are also part of forests since many human beings live there, interacting with the forests and obtaining a number of goods and services from them which ensure their survival.

This great diversity of flora and fauna (including human beings), interacts with other elements such as soils, water, solar energy and climate in such a way as to ensure its self-regeneration and the conservation of all the forest's components.

Unlike a forest, a large-scale commercial plantation is composed of:

- one or a few species of trees (often alien), planted in homogenous blocks of the same age
- a scarce few species of plants and animals.

As far as human communities are concerned, not only do they not inhabit commercial plantations but they are normally not even allowed access, since they are considered a threat to them. In many cases, plantations are preceded by the eviction of local dwellers (with or without the use of force) and by the destruction of the forest that provided to their basic needs. At best, they are perceived as a source of cheap labour during planting and later on, at harvest time.

Commercial tree plantations require preparation of the soil and plants must be carefully selected for rapid-growth and other technological characteristics needed by the industry. The plants must then be fertilized, "weeds" must be removed using herbicides and trees must be planted in regular lots and harvested after in short rotation periods. Additionally, given that their objective is to produce and harvest large volumes of wood or fruit (as in the case of oil palm), it is clear that they have the same characteristics of any other agricultural crop. They are thus not forests but crops. Even worse, they are a large-scale monocrop.

In short, a tree plantation is not a "planted forest", because in addition to the above, it is plainly impossible to "plant" the enormous diversity of plants and animals which characterize a forest, nor is it possible to "plant" the numerous interactions which occur between the living and inorganic elements which make up a forest.

However, upholding this deception is of crucial importance to the powerful economic interests traditionally involved in this business (from plantation companies to the industrial, commercial and services complex that depends on them), to ensure that they can continue obtaining high economic benefits. Another sector has recently incorporated itself to those actors – the carbon market sector – which is also interested in plantations being considered as "forests", thus greening its obscure business.

It is precisely because of that that it is essential to begin by destroying the myth that plantations are "forests", that being the reason why we thought it relevant to title this book in the way we did: "plantations are not forests".

PLANTATIONS IN THE CLIMATE CHANGE DEBATE

Climate Change is threatening the Earth's future. Its causes are well-known and so are the measures that need to be implemented to avoid it. However, as this affects the economic interests of the powerful, they and their advisors have sought to invent "solutions" that do not affect their interests. Among them, one of the favorite is based precisely on plantations, which are said to act as "carbon sinks."

It is said that as the trees grow, they take in greater quantities of carbon than they release, thus resulting in a positive net balance as respects to the quantity of carbon dioxide (the main gas producing the greenhouse effect) in the atmosphere. This simplistic reasoning has been adopted by the Convention on Climate Change, more for political and economic reasons than for the scientific evidence supporting it.

In general terms, any area covered by tree plantations, in the absence of proof to the contrary, should be considered a net source of carbon, not a sink. Firstly, because in many cases these plantations replace forests, which means that the volumes of carbon released by deforestation are greater than what a growing tree plantation can capture, even over the long term. Even in cases where they don't involve deforestation, they are established in other ecosystems which also store large quantities of carbon (such as grasslands) which is released from the soil into the atmosphere as a result of the plantation.

Moreover, there is a second crucial issue: are these plantations to be harvested or not? If they are, then, at best, they are only temporary sinks: the carbon is stored until they are harvested, then released in a matter of years (in some cases in a matter of months) when the paper or other products produced from the plantations are destroyed. If the trees are not to be harvested, then the plantations are occupying millions and millions of hectares of land which could be used for much more useful purposes, for example, for the production of food. In any case, after a certain period of time, the trees will begin to die and to release again the carbon stored in them.

A second issue is the unstable character of the carbon storage capacity of plantations, subject to pest attacks and to fires. The latter is evident at the time of publication of this book, when the world is witnessing the huge forest fires that are affecting Europe and the total lack of capacity of its governments (in spite of the technological and economic means at their disposal) to put them off. Had those forests and plantations been sold as "carbon sinks", buyers would be now is serious problems.

In other words, there are many uncertainties concerning the supposition that plantations are always carbon sinks, not only over long periods of time but also even in the short period of rapid growth between planting and harvesting. This "common sense" supposition needs to be backed up by a lot more scientific research before tree plantations can be accepted as "carbon sinks."

Finally, it is fundamental to see the issue in its totality and to analyse the series of environmental and social impacts which the promotion of large areas of fast-growing, monoculture tree plantations produce. Knowing that these plantations have an impact on the environment (on soils, water, flora and fauna) and on local communities, it is not acceptable to promote them under an "environmental"

objective such as that of countering the greenhouse effect. The solution to this problem must come from the reduction of CO2 emissions (derived from the use of fossil fuels) and from the protection of forests, not from attempts to colonize huge areas of land without having thought through the consequences.

The different issues to be taken into account on this problem are analysed in much more detail in the following articles.

Sinks that stink

As nearly everyone knows, the world is heating up, and one of the main causes of climate change is the use of fossil fuels. Under pressure, the industrialized countries most responsible for this state of affairs made some minimal commitments to reduce their fossil fuel emissions in the Kyoto Protocol of 1997. However, some of the most polluting countries are trying to find ways out of their commitments, using potential loopholes in the Protocol which may allow them to plant millions of hectares of trees in Southern countries as a substitute for cutting emissions at source.

Partly in order to assess the scientific validity of this approach, the Intergovernmental Panel on Climate Change (IPCC) appointed a panel to put together a Special Report on Land Use, Land Use Change, and Forestry. The report, released in May 2000, has disappointed many activists by giving a "scientific" stamp of approval to a carbon market which would generate profits for a small number of mostly Northern companies and consultants, allow industrialized countries to continue emitting carbon to the atmosphere, impact negatively on people and the environment in the South – and fail to slow climate change.

How was it possible for the IPCC to produce such a report? Why didn't the scientists do their job properly? The answer is probably very complex, having to do with peer pressure, political influence from the US, personal ambition, and the fact that out of hundreds of authors and commentators on the report, only a tiny handful were social scientists or experienced in grassroots political realities. But one of the reason's for the report's failure is, sadly, surely quite simple: some of the authors (and the companies they work for) will benefit financially from having drawn the conclusions they drew. The following are only a few examples:

- Sandra Brown of the US is a Coordinating Lead Author of Chapter 5 ("Project-Based Activities") and the Summary for Policymakers of the report. Brown is Senior Program Officer for Winrock International, an Arlington, Virginia-based nonprofit organization which accepts contracts from "public and private" sources. Winrock provides forest carbon monitoring technical services to government agencies such as the U.S. Initiative on Joint Implementation and a wide range of private sector and non-governmental organizations.

- Pedro Moura-Costa, another important author of Chapter 5, is a UK-based executive of Ecosecurities Ltd., a consulting firm with offices in the US, Brazil, Australia and The Netherlands. Ecosecurities "specializes in the generation of Emission Reduction Credits" and stands to make large profits from its involvement in carbon forestry.

- Gareth Philips of the UK, another Lead Author of Chapter 5, works for Societe Generale de Surveillance (SGS) Forestry of Geneva, which earns money from designing, monitoring and certifying carbon forestry projects, including quantifying carbon impacts. SGS certifies the Certified Tradeable Offsets offered by Costa Rica and hopes to expand its work elsewhere in the carbon forestry field. Philips and SGS thus have a vested interest in arguing that quantification of the climate effects of carbon forestry makes sense.

- Richard Tipper of the UK, also an author of Chapter 5, is on the staff of the Edinburgh Centre for Carbon Management (ECCM), a consulting company which earns money from designing, assessing and monitoring carbon forestry projects. ECCM works closely with Future Forests, which has carbon forestry contracts with Mazda, Avis, BT and other companies. ECCM staff have also been involved in a forestry project financed in part by the Federation Internationale de l'Automobile in Mexico. Using lands inhabited by highland Mayan Tojolobal and lowland Mayan Tzeltal communities, the project is designed to "offset" the 5,500 tonnes of carbon emitted annually by Formula One car racing at a price of 38,000 UK pounds a year.

- Mark Trexler of the US, a Review Editor of the same chapter, runs Trexler & Associates, a firm which has made money – and is likely to make millions of dollars more – by promoting and monitoring carbon sequestration and other "climate mitigation" projects.

- Peter Hill of the US, a Lead Author of Chapter 4 ("Additional Human-Induced Activities-Article 3.4"), is with Monsanto Corporation. Monsanto has a large stake in genetically modified organisms, including, potentially, organisms modified to take up or store carbon more efficiently. Hill's corporation too thus stands to make increased profits as a result of the IPCC report's optimistic findings about the possibility of using land and forest projects to mitigate climate change.

These and many other authors and editors of the IPCC Special Report on Land Use, Land Use Change and Forestry had vested interests in reaching unrealistically and unjustifiably optimistic conclusions about the possibility of compensating for emissions with trees. They should therefore have been automatically disqualified from serving on an intergovernmental panel charged with investigating impartially the feasibility and benefits of such "offset" projects. As things stand, the report must now be shelved due to their clear conflict of

interest and a new report instigated which will be free of the taint of intellectual corruption. It's official: the carbon sink approach now definitely stinks. (WRM Bulletin Nº 35, June 2000).

Compensating for emissions through carbon sinks: a cheat's charter

One of the named experts who produced the IPCC special report on land use – Richard Tipper – replies in the current issue of Multinational Monitor magazine that "you could say all scientists have vested interests when they participate in such a panel because they're interested in advancement or research money" and adds: "if you disagree with somebody then you should be able to make a coherent argument, not just slag people off."

We believe that most scientists would disagree with Mr. Tipper's view about participation in expert panels. We also believe that people with vested interests should not accept appointments to expert panels whose findings might economically benefit them. Nor should they be invited to participate in them.

Regarding Mr. Tipper's reference about "slagging people off", it is important to remember that the World Rainforest Movement has been disseminating not one but a number of "coherent arguments" against plantations as carbon sinks for more than a year – all of which Mr. Tipper seems to ignore. Perhaps he feels we are not sufficiently "scientific" for our arguments to be taken into account. However, it will be difficult for him to say the same about the scientists from the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria.

IIASA carried out a detailed study of Russia's biosphere,which contains a fifth of the world's forests. The full report, announced on 25 August in a news release under the suggestive heading "Is the Kyoto Protocol Workable?" puts in question the whole idea of using carbon sinks as a means of "compensating" for CO2 emissions. Anatoly Shvidenko, one of the scientists involved in the study, stated that under the Kyoto Protocol, Russia is likely to be able to claim credit for improving its biosphere's ability to soak up carbon, but that the uncertainties involved in calculating such credits are huge and "greatly exceed likely changes in industrial emissions." In plain English, that means that including trees in the Kyoto Protocol is a recipe for confusion and cheating.

Sten Nilsson, also from IIASA, concluded that "the scientific uncertainties in measuring carbon movements into and out of ecosystems are just too great," and that "by opening up the whole of the biosphere to actions under the Kyoto Protocol, governments have made it completely unverifiable" . IIASA's Michael Obersteiner summarized the whole issue by saying that the Protocol "really is a cheat's charter."

Asked to comment on the IIASA report, A US analyst of the Kyoto Protocol, David Victor, working at the New York-based Council on Foreign Relations,

concurred with its findings. “Their analysis is fundamentally correct. It is essentially impossible to verify compliance if the targets include forests,” Victor said.

After analysing the IIASA report and other relevant information and viewpoints, “New Scientist” journalist Fred Pearce reaches the conclusion that “the message from the IIASA seems clear. Science is not yet up to policing a system of greenhouse gas targets that includes the biosphere. Until it is, the only viable Kyoto Protocol is one that relies solely on slashing the world’s use of fossil fuels.” With which we totally agree. (WRM Bulletin Nº 38, September 2000).

Climate Change: The lesson from Lyon

Government delegates from all over the world met on September 2000 in Lyon, France, in a Preparatory Conference prior to the Conference of the Parties of the Convention on Climate Change which will be held next November in the Hague, Netherlands.

The only positive thing that can be said about the Lyon meeting is that delegates worked very hard, late into the evenings, and that some delegates – unfortunately too few – actually tried to do something about climate change. But the general character of the meeting was one of blackmailing, arm-twisting, marketing, bribing and trading among the various elites present. Most of the time was spent discussing money for programmes which actually have little or no relevance to climate.

One of the topics talked about was something called the “Clean Development Mechanism.” This is a scheme which could (among other things) allow industrialized countries to “compensate for” their emissions through the use of biospheric “carbon sinks” in the South – such as tree plantations, forests and changes in land use – thus enabling them to maintain and even increase the fossil fuel emissions that are at the root of climate change. Little attention was paid by most of the diplomats and technocrats present to the proven negative impacts that forestry projects similar to those contemplated have already had on people and the environment.

Fortunately, this false climate “solution” has not yet been approved by the Conference of the Parties. But the preliminary negotiations at Lyon gave little reason for optimism. Some of the delegations present focused on blackmailing (“We won’t sign the Kyoto Protocol unless lots of carbon sinks are included”), accompanied by arm-twisting (“You are free not to agree, but … ”). The US and Japan scored very high here. Others tried to trade their countries’ “carbon sink” capacity for money. Some Latin American delegates had a very high profile in this respect. A third group – including many European delegates – tried to show commitment to Kyoto-agreed emission cuts, but left the door open for forestry

projects in the Hague agreement. The small group of countries who strongly oppose the inclusion of carbon sinks in the Kyoto Protocol seemingly could do little more than try to find ways of avoiding the very worst of the possible deals on offer.

Sadly enough, those were the meeting's highlights. There was almost no discussion of the real issues: equal rights to the atmosphere, fossil fuel use reductions, especially in the North, alternative energy sources, and energy efficiency and conservation. If governments had been truly willing to address climate change, they would have focused on how to achieve drastic cuts in fossil fuel emissions through the active promotion of clean, renewable and low impact sources of energy. North and South would have begun to share the research and experience that both have regarding low-impact energy use and would have considered mechanisms to ensure the effective exchange of the relevant knowledge, technology, and political experience both from South to North and from North to South. Those should have been the core issues in discussions regarding any "Clean Development Mechanism." But the governments present chose otherwise.

One lesson can be drawn from the Lyon meeting: unless people put pressure on their governments, climate negotiators will do nothing to head off the world's looming climate disaster. Peoples' movements must have the courage to disbelieve what most technocrats in governments, research institutions and even NGOs are telling them – namely, that climate change is an issue for "experts" only. They must understand that this is not a technical but a power issue and that the arena is political, where everyone is entitled to participate. They must keep firmly in mind that the issue is essentially very simple with an equally simple solution that anyone can understand: replace fossil fuels by alternative and environmentally-friendly energy sources. Climate change will not be solved by planting millions of hectares of pines and eucalyptus, which will only add to existing problems.

If left alone, official delegates will lead us all to disaster. They must be pushed, both from outside and from inside their grand meeting halls, toward more sober and responsible action. That is the lesson from Lyon. (WRM Bulletin Nº 38, September 2000).

$inks: who wins, who loses?

Members of the Global Forest Coalition and other NGOs and IPOs that gathered in Lyon in September 2000 prepared a statement explaining the reasons for opposing to carbon sinks in the Clean Development Mechanism. Here there are some of the reasons:

1. Sinks are neither long term nor short term solution to mitigating climate change. The lack of verifiable ways of estimating the ability of forests and other

ecosystems to 'compensate' for industrial emissions means that the inclusion of sinks in the CDM would destroy the Kyoto Protocol.

2. Including sinks in the CDM would lead to Annex 1 countries receiving credits for forest conservation, restoration, reforestation and tree plantation establishment while the rights and interests of indigenous and other local communities which have been inhabiting and protecting these forests for centuries are neglected.

3. Including sinks in the CDM as a way of meeting the commitments of governments would reinforce existing inequalities. The climate crisis is due to the industrial societies using more than their fair share of the world's carbon cycling capacity to gain more than a fair share of the world's resources. This problem will not be solved by abdicating them a right to take over other people's lands and seas for so-called carbon sequestration and storage.

4. Sinks in the CDM would constitute a worldwide strategy for expropriating Indigenous Peoples' and local communities' lands, seas and territories and violating their fundamental rights.

5. Including sinks in the CDM would provide a huge incentive, on top of existing subsidies, for the establishment of Northern-driven, large scale, environmentally and socially destructive monoculture tree plantations. These plantations are already proving disastrous for peoples and their environments all over the world. Moreover, carbon plantations will result in little revenue for host countries, provide an obstacle for their present and future sustainable development while awarding Annex 1 (Climate Change Convention) countries huge sums in terms of carbon credit.

6. Including sinks in the CDM would not address the underlying causes of forest loss. Nor would it create macro-economic conditions making forest conservation and restoration possible. Such conditions include debt reduction, sustainable consumption and production patterns, revision of Structural Adjustment Programmes, strict regulation of international private investment flows and ensuring equitable relationships between North and South. (WRM Bulletin Nº 39, October 2000).

Forests better than plantations, even as carbon sinks

During the climate change discussions, some have argued that, given that old-growth forests are carbon reservoirs – and not carbon sinks – the world's climate would benefit from cutting them down, converting the wood into durable products and replanting the clearcut area. The existing carbon would be safely stored in wood products and the plantation trees would act as sinks for many years, until they reached maturity. This would enhance – so they say – the carbon sink capacity of forest ecosystems.

Apart from the many flaws of such approach, a recent study has shown the importance of old-growth forests as carbon sinks and has warned against their substitution by plantations. The research concludes that forests are far better than plantations at ridding the air of carbon dioxide. The analysis, published in the journal Science, was carried out by Dr. Ernst-Detlef Schulze, the director of the Max Planck Institute for Biogeochemistry in Jena, Germany, and two other scientists at the institute.

The German study, together with other similar research, has produced a picture of mature forests that differs sharply from long-held notions in forestry. Dr. Schulze says that aging forests were long perceived to be in a state of decay that releases as much carbon dioxide as it captures. But it turns out that the soils in undisturbed tropical rain forests, Siberian woods and some German national parks contain enormous amounts of carbon derived from fallen leaves, twigs and buried roots that can bind to soil particles and remain there for 1,000 years or more. When such forests are cut, the trees' roots decay and soil is disrupted, releasing the carbon dioxide. Centuries would have to pass until newly planted trees built up such a reservoir underground.

The study's authors stress the need to protect old-growth forests. Without such protection, the scientists conclude, some countries could be tempted to cut down old-growth forests now and then plant new trees on the deforested land, getting credit for reducing carbon dioxide when they have actually made matters worse.

Several climate and forestry experts familiar with the work have said the study provided an important new argument for protecting primary forests. They add that the study also provides a reminder that the main goal should be to reduce carbon dioxide emissions at the source. (WRM Bulletin Nº 39, October 2000).

Research findings say planting trees would increase global warming

Researchers at Lawrence Livermore Laboratory have found evidence linking cooling earth temperatures between A.D. 1000 and 1900 to widespread deforestation. The discovery adds layers of complexity to the already difficult endeavor of predicting climate change and casts doubt on a commonly held belief that planting trees will slow "global warming."

Though scientists have known ground cover affects temperature, the new findings indicate drastic climate temperatures attributable to land-use. "The main way humans influence climate is by burning fossil fuels, which make greenhouse gasses," Philip Duffy, leader of the lab's climate and carbon cycle modeling group, said. "But we also suspected large-scale changes in land-use contributed to climate changes."

From a bird's-eye view, forests appear darker than agricultural land, for example, fields of grain or corn. Dark colours tend to absorb sunlight, trapping the heat

that warms the planet. By contrast, lighter colors reflect solar rays back into space, resulting in cooler temperatures as the sunlight bounces away from the earth.

Using data collected from geological observations, including studies of old tree ring widths and densities, scientists long had recognized the earth's climate cooled by as much as 2 degrees Fahrenheit between A.D. 1000 and 1900. Researchers at the lab's Atmospheric Science Division theorized replacement of forests by agriculture and other land-use changes might have contributed to that change. To test their theory, scientists used supercomputers to simulate two possible scenarios: one modeling climate development accounting for agriculture, another modeling the same conditions but without deforestation. The tests showed significant differences: The regions that cooled more were the same regions where there was deforestation and dense human activity. "It complicates life for people like me who are trying to predict climate change," Duffy said. Some scientists have theorized that planting trees would thwart global warming, because trees absorb carbon dioxide. The new findings, however, quantify the extent to which trees capture heat, and suggest planting trees might not be the way to cool the planet. (WRM Bulletin Nº 46, May 2001).

Biodiversity also better than monocultures from a climate perspective

Recent research findings provide additional arguments to the opposition movement against the inclusion of tree plantations as carbon sinks within the current Convention on Climate Change debate on the implementation of the Kyoto Protocol.

Researchers from the U.S. Department of Energy's Brookhaven National Laboratory say that biodiversity is an important factor regulating how ecosystems will respond to increasing atmospheric carbon dioxide. The team of investigators, led by Peter Reich of the University of Minnesota, just released results from a major field study that appears in the April 12 2001 issue of the journal "Nature."

All plants absorb carbon dioxide as they grow, but different species absorb carbon at different rates – and different environmental conditions can also affect how well plants absorb carbon. The scientists found that more diverse plant ecosystems were better able to absorb carbon dioxide (CO2) and nitrogen, both of which are on the rise due to human activities and industrial processes.

"The key implication of this research is that, in response to elevated levels of CO2 and nitrogen, ecosystems with high biodiversity will take up and sequester more carbon and nitrogen than do ecosystems with reduced biodiversity," said Brookhaven plant physiologist David Ellsworth, one of the study authors.

The study thus lends credence to arguments that intact ecosystems do a better job of regulating environmental problems than do human-made landscapes such as tree monocultures.

The researchers learned that elevated levels of CO2 and nitrogen resulted in increased biomass when compared with plots exposed to ambient levels of CO2 and nitrogen. The effect, however, was greatest in plots with high biodiversity as compared to those with fewer species.

"These findings suggest that protecting biodiversity worldwide will contribute to safeguarding the capacity of ecosystems to capture a larger fraction of additional carbon and nitrogen entering our environment due to industrial processes," said Brookhaven ecologist George Hendrey. (WRM Bulletin Nº 46, May 2001).

Global warming: More plantations or more will to reduce emissions?

During the international negotiations on climate change, some governments committed themselves to reducing carbon dioxide emissions in their own countries. This very encouraging attitude from an environmental perspective – for the reduction of the greenhouse effect – can at the same time be the worst decision against the environment if it were to be implemented through the promotion of plantations to act as so-called "carbon sinks."

Negotiations will be restarting in July 2001 and the issue is very much on the agenda, given that more and more governments and corporations – mostly Northern – are stimulating monoculture tree plantations in the South – eucalyptus, pines or oil palm – as a means to "offset" (in reality to justify) their greenhouse gas emissions, instead of controlling and reducing them.

These decisions are being taken without taking into account the impacts of monocultures on the countries and peoples which inhabit the regions in which they are implemented. In the case of oil palm plantations, they are being promoted through the press or scientific studies which, to the usual false arguments (employment generation, contribution to the country's development) now add an equaly false one: that "Oil palm is an excellent 'machine' [that] can fix carbon dioxide using solar energy".

We have already stated through the WRM bulletin all the reasons to oppose the carbon sink mechanism (see web page address below), so we won't repeat them now. What we do wish is to reproduce a few quotes to exemplify the propaganda with which the unknowing public is being increasingly bombarded with the aim of both imposing oil palm plantations and of imposing the "remedy" of carbon sink plantations as the solution to global climate change:

1- Forests are a natural store of carbon. Oil-palm plantations have similar net carbon fixation to lowland forests. ("More Land To Be Needed For Oil-Palm Areas" from the New Straits Times, February 13th, 2001 - Malaysia).

2- Like hevea, oil palm trees are environmental friendly. It removes carbon dioxide from the air and releases oxygen to the atmosphere. At the same time, stands of oil palm trees form renewal resources for the pulp and paper industry.

These materials will be available from the 2.8 million hectares of oil palm trees in Malaysia and thereby reduces pressure on some forest species. ("Sustaining Agricultural Development in Malaysia: Experience in the Plantation Sector" by Dr. Abdul Aziz, Academy of Sciences Malaysia, Director-General of Malaysian Rubber Board and Dr. Yusof Basiron, Academy of Sciences Malaysia, Director-General of Palm Oil Research Institute of Malaysia).

3- Well managed oil palms sequester more carbon (C) per unit area than tropical rainforests, and oil palm estates are predicted to become an important part of C offset management in the next century. ("Oil Palm – The Great Crop of South East Asia: Potential, Nutrition and Management" by Ernst W. Mutert and Thomas H. Fairhurst, Potash & Phosphate Institute, Paper presented at the IFA Regional Conference for Asia and the Pacific, Kuala Lumpur, Malaysia, 14-17 November 1999).

4- In the same way as rubber tree plantations, the cultivation of oil palms is also regarded as environmentally friendly, because it helps to fix carbon during the plant growth stage, cutting down on the greenhouse effect, besides providing other environmental advantages. Research shows that a forest, during its growth period, absorbs more carbon than it discharges into the atmosphere, thus working as a type of "filter". Oil palm and rubber plantations have this profile, according to scientists. (OMB Group, Oil Palm / Dendê Plantation, Brazil).

5- Oil palm is an excellent "machine" can fix carbon dioxide using solar energy ("Palm Oil Project - An International Collaboration in Gene Manipulation of Oil Palm for the New Century" by Dr. Hiroshi SANO, Chief Research Scientist, Agricultural Chemicals Laboratory Yokohama, Research Center Mitsubishi Chemical Corporation).

6- An oil palm plantation can "sequester" up to 15 tonnes of carbon dioxide from the atmosphere for each hectare planted, thus contributing to mitigate the greenhouse effect ... a planted forest is replacing another forest (Jorge Román, Project Manager of Palmeras de los Andes, Revista Gestión Economía y Sociedad, Octubre del 2000. N° 76).

7- ...while Malaysia's Primary Industries Minister chimed in a few months later with the claim that his country's oil palm plantations are in fact "better than the developed nations' pine trees in terms of absorbing carbon gases**"**. (The Corner House Briefing #15 - "The Dyson Effect: Carbon 'Offset' Forestry and the Privatisation of the Atmosphere" - 1999).

8- Malaysia emitted 144 million tonnes of greenhouse gases ... almost half (68.7 million tonnes) of the emissions was absorbed by "carbon sink" – planted forests, ... oil palm turned out to be the country's largest carbon sink, taking up 63 per cent of the 68.7 million tonnes of greenhouse gases absorded due to their extensive areas. ("Malaysia's CO2 emissions among lowest", Malaysia Daily Express, November 27, 2000). (WRM Bulletin Nº 47, June 2001).

Capturing Carbon: Dilemmas for Forest Peoples

Global debates about the role of forests and plantations in climate negotiations have paid little attention to the views of the 300 million or so forest people who inhabit them. Historically marginalised and denied recognition of their rights, forest peoples are demanding that their voices be heard and that they be respected as the rightful owners of their forests. While scientists are still unsure whether or not forests and plantations do or do not act as long-term reservoirs or sinks, politicians are already arguing about whether forests should or should not be treated as commodities in the global carbon trade. Countries like the USA, which are finding it hard to curb their emissions, are keen on the idea of paying companies or countries in the South to 'create' carbon sinks so unsustainable economies in the North can carry on polluting. And some people in the South are keen to take the money and not ask difficult questions.

There are clear risks and some possible advantages to be gained by forest peoples if forests are made part of a global carbon economy. The most obvious risks are that powerful interests in the industrial North and in energy and forestry businesses in the South will gain a determining stake in deciding what should happen to forests, once again overwhelming forest peoples from making effective decisions about their future. Likewise lucrative deals between carbon emitters and carbon storers will provide powerful incentives for large enterprises to take over community lands for plantations. On the other hand, it is possible that recognition of the value of standing forests as carbon stores could free up money to pay conservationists and forest peoples to look after forests and protect them from destruction. In weighing up the pros and cons, forest peoples have reached different conclusions about what they should be demanding in the global negotiations.

All are agreed that indigenous peoples and other forest-dwellers should be centrally engaged in climate negotiations and not relegated to the side-lines. They have been divided, however, over whether or not they should accept the inclusion of forests in the 'Clean Development Mechanism' (CDM). In a powerful statement to the sixth meeting of the Climate Negotiations in The Hague last year, indigenous spokespersons from 22 different countries and representing 28 distinct cultures, rejected the inclusion of forests in the CDM and called for the establishment of a fund for use by Indigenous Peoples to address the impacts of climate change. "Our intrinsic relation with Mother Earth obliges us to oppose the inclusion of sinks in the CDM because it reduces our sacred lands and territories to mere carbon sequestration, which is contrary to our cosmovision and philosophy of life. Sinks in the CDM would constitute a worldwide strategy for expropriating our lands and territories and violating our fundamental rights that would culminate in a new form of colonialism. Sinks in the CDM would not help reduce GHG emissions, rather it would provide industrialized countries with a ploy to avoid reducing emissions at source."

A different opinion has been voiced by other forest peoples, notably from Brazil, who have been working with the US NGO Environmental Defense, itself an advocate of the carbon trade. "Our people have proposals and projects for the protection of forest and for the lives of our peoples. We need the means to expand and multiply these. The CDM must not exclude forests and must not exclude our peoples. We support the inclusion of forest protection, community-based forest management, sustainable production, and economic alternatives for indigenous and traditional peoples in the CDM." In June this year, representatives from the Brazilian organizations and Environmental Defense toured Europe to explain their position. The meetings highlighted the need for further discussions about the implication of the CDM for forest peoples. (By: Marcus Colchester, WRM Bulletin Nº 48, July 2001).

The inclusion of sinks has sunk the Kyoto Protocol

The news have reached the entire world: the Kyoto Protocol has been saved! In spite of this information being formally true, it hides the fact that this does not mean that the planet's climate has been saved, which is the real issue at stake. On the contrary, as it now stands, while not solving the problem it was intended to address, the Kyoto Protocol will impose further impacts on local people through the implementation of carbon sink projects.

Though anticipated, it is sad to confirm that the Bonn meeting of the Convention on Climate Change was more focused on "sinks" than on "sources" of greenhouse gases. This means that instead of seeking means by which to reduce the use of fossil fuels – coal, petroleum and natural gas – which are at the root of the greenhouse effect, climate negociators focused instead on means to avoid commitments on fossil-fuel emission reductions.

The meeting was held in a context where the United States – responsible for 25% of the world's total greenhouse gas emissions – publicly stated that it refused to comply with the commitments agreed to in Kyoto in 1997. Such context facilitated arm-twisting by a major polluter such as Japan, which was finally instrumental in reaching an agreement to "save" the protocol. The solution to "save" it was the inclusion of tree plantations as carbon sinks.

Climate negociators chose to ignore the increasing number of scientific studies which question the capacity of tree plantations to be a long-term solution to climate change. They also chose to ignore that this mechanism will in fact result in a net increase of fossil-fuel emissions in the North. And they also opted to ignore the impacts that large-scale tree plantations have on people and the environment.

As a result, polluters will now have a licence to pollute under the guise of implementing plantation projects to act as "sinks" for their emissions. Unless

local opposition prevents them from doing so, most of these plantations will be implemented in the South, where trees grow much faster than in the North, thus being more "efficient" for carbon sequestration. At the same time, they will be much cheaper than in industrialized countries – where labour and land are more expensive – and will receive all the necessary support from Southern governments – including repression of local opposition – desperate to accept any investment which may leave some – however little – money in the country.

To understand the threat that this will mean to people, soils, water and biodiversity, it is necessary to realize that this "solution" may result – to make theoretically sense from a climate perspective – in hundreds of millions of hectares of fertile land being converted to large-scale plantations of fast growing species such as eucalyptus. In the South, those lands are already occupied by people, who depend on them for their subsistence. Those people's lands are therefore now under the threat of appropriation to make way to plantations. The areas to be occupied by these carbon garbage dumps host much of the world's biodiversity, much of which could be wiped out by large-scale monoculture plantations. At the same time, these would deplete water resources and result in dramatic changes in the soils where they are implemented.

In sum, with their decision to include plantations as carbon sinks, climate negotiators have not only not addressed the problem they were meant to address – climate change – but have added new problems to millions of people who will now be facing the appropriation of their lands and resources for conversion to Northern carbon garbage dumps. The price for "saving" the process has clearly been too high and the inclusion of sinks has sunk the Kyoto Protocol and the hopes it had raised. It is now up to people and organizations really concerned with the Earth's future to stop the implementation of this false solution and to force governments to address seriously the issue of global climate change. (WRM Bulletin Nº 48, July 2001).

SinksWatch: An NGO initiative to scrutinize tree plantation carbon sinks projects

As governments at the 7th Conference of the Parties to the climate change convention, COP7, in Marrakesh in 2001, put the final touches on the decision that made carbon sink projects eligible for credits under the Kyoto Protocol's Clean Development Mechanism (CDM), a group of NGOs formed SinksWatch, an initiative to track and scrutinize carbon sink projects related to the Kyoto Protocol.

SinksWatch is an initiative of the World Rainforest Movement, hosted by the WRM's Northern Support Office and implemented by FERN. The aim of SinksWatch is to track and scrutinize carbon sequestration projects related to the Kyoto Protocol, and to highlight their threats to forests and other ecosystems,

to forest peoples as well as to the climate. The focus of SinksWatch is on tree plantation sinks projects, particularly in areas where land tenure and land use rights are in dispute.

SinksWatch recognizes that there are important links between forests and climate change and advocates addressing these links in a way that honors the important role forests play in adapting to climate change and in safeguarding against the impacts of extreme weather events without justifying the continued, additional and permanent release of carbon from fossil fuel burning.

Why such an initiative?

The inclusion of sinks projects into the Kyoto Protocol's Clean Development Mechanism, will allow the continued and permanent release of carbon from fossil fuels in exchange for temporary storage of carbon in trees. Carbon sink credits thus increase the amount of carbon in the active carbon pool and only shift the pressing need to reduce greenhouse gas emissions to future generations.

SinksWatch will scrutinize carbon sink projects, expose the flaws of including carbon sinks under the Kyoto Protocol's accounting scheme and raise awareness about the consequences of ignoring the crucial differences between carbon stored in fossil fuels and carbon stored in trees:

Carbon in fossil fuels barely interacts with the carbon in the atmosphere. It is locked away 'safely' from the active carbon pool and is stored permanently in fossil fuels. The main way that fossil fuel carbon enters the atmosphere is when humans choose to extract and burn fossil fuels. There is no reverse flow back into the fossil fuel carbon pool – at least not in the time scale relevant for the Kyoto Protocol discussions.

Carbon stored in trees, forests and other ecosystems is in constant exchange with carbon in the atmosphere. It is part of the active carbon pool and is frequently released into the atmosphere through fires, insect outbreaks, decomposition, and respiration of plants as well as through logging and clearance for agriculture. Carbon storage in trees is thus only temporary.

Under the Kyoto Protocol accounting scheme, for every tonne of carbon that is stored in a tree, an equivalent tonne of carbon from fossil fuels can be released into the atmosphere. The underlying assumption that 'carbon is carbon' ignores the different interactions of these carbon pools with the atmosphere – a crucial difference with regard to climate change. The result is that with every carbon sink credit issued under the CDM, there is an increase of carbon in the active carbon pool – the very pool, which shapes the global climate – even if for some time that overall increase is not apparent because the carbon is temporarily stored in a tree.

Why focus on plantations?

In addition to the underlying flaws of carbon sink credits, the Kyoto Protocol also gives the wrong incentives: the focus is on carbon sequestration, not carbon reservoirs – the faster a tree grows the more credits can be gained. This leads to an incentive for large-scale tree plantations. Examples of this perverse incentive are already evident, with the Plantar project in Brazil being the most obvious example. The negative environmental and social impacts of large-scale tree plantations are well documented. Large-scale industrial tree plantations often generate poverty, increase inequity, can affect food security, deplete water and soil resources, drastically reduce biological diversity, to mention but the most obvious impacts. They are also extremely prone to fires and insect outbreaks, further destabilizing an already insecure carbon store.

SinksWatch believes that planting trees for the purpose of carbon credits and carbon accounting in the Kyoto Protocol will not address the root causes of the global forest crisis. It also is not an effective way to tackle the pressing problem of climate change. On the contrary, carbon sink credits run the risk of exacerbating both the global forest crisis and climate change. SinksWatch will therefore scrutinize projects aiming to gain carbon credits under the Kyoto Protocol's flexible mechanisms, especially the CDM. SinksWatch aims to provide a clearinghouse for information on carbon sink projects related to the Kyoto Protocol and to facilitate co-ordination among those affected by CDM sinks projects. A website with more detailed information about current sinks projects as well as the underlying flaws of carbon sinks will soon be online at www.sinkswatch.org. SinksWatch works in close collaboration with CDM Watch, an initiative to track non-sink CDM projects. SinksWatch provides regular updates to NGOs working on forest-related issues and aims to support groups and organizations affected by carbon sink projects to effectively challenge these projects. (WRM Bulletin Nº 67, February 2003).

INTERNATIONAL PROCESSES AND ACTORS

Plantations don't just "happen": they are promoted. Although there are many international processes and actors involved in this, it is important to highlight the crucial role played in this matter by the FAO (United Nations Food and Agriculture Organization). This institution was responsible for officially defining plantations as forests. Even though its definition cannot stand the slightest critical analysis, it has been internationally accepted as the revealed truth. Plantations are forests. So says the FAO. Amen.

However, the FAO did not limit itself to that role. It was also the organization that prepared the grounds for the promotion of tree monocultures at the international level, as one of the components of its "Green Revolution" which – under the

slogan of finishing with hunger- finished with the environment and with the means of livelihood of small peasants throughout the world. In forestry, the FAO actively promoted – through research and advisory missions – the large-scale plantation of tree monocultures, first focusing on eucalyptus and later on other species such as pines, acacias and other.

The FAO does not act on its own. Plantations have also been promoted by multilateral lending institutions such as the World Bank and regional banks (African, Asian and Inter American), by international processes such as the United Nations Forum on Forests, the International Tropical Timber Organization, the Convention on Climate Change, Northern export-credit agencies, forestry and carbon trade consultancy firms and even by forest certification schemes such as the Forest Stewardship Council.

But behind all of them are those who really benefit from plantations: the large timber, pulp and paper transnational corporations; the equally large corporations that industrialize palm oil, transforming the raw material into a broad number of products, ranging from foodstuffs to cosmetics; the large corporations responsible for vast emissions of green house gases (headed by oil companies), which aim to "compensate" their emissions with tree plantations. And all of them acting within the framework of an unsustainable production model aimed at meeting excessive and unsustainable consumption levels in the North at the expense of society and environment in the South.

In this section we provide some examples regarding some of those actors and the role they play in the promotion of this forestry model.

Do you believe in Planted Forests?

Have you ever seen "Ghost Busters", the movie? Thanks to the magic of movies, that silly story, perhaps the brainchild of a superstitious youngster became a motion picture. Many kids and a few adults maybe even believed for a moment that ghosts are for real. This is pretty close to what happened in New Zealand, at the "Experts Meeting on Planted Forests".

To many of us, this is just absurd, planted forests do not exist. But, is that a reason for not being scared?

- Well, I don't know what I saw, but I was scared!

This is a very usual statement by fellow mortals when facing a ghost in the middle of a desolate place, usually, an old Indian cemetery taken over by "civilization", or things like that.

- "Of course, I'm scared; we don't have this in my culture!" This is pretty close to how an aboriginal colleague felt when listening to some of the interventions at the Experts Meeting. "I don't know what 'planted forests' are, but they look pretty awful!" He added.

To me they too seemed pretty creepy, in spite of all my baggage of western culture and education and training that should prepare me to comprehend them. Objectively, I made an effort to place them in this world as forests. But, the harder I tried, the more they looked like plantations, in the stricter of meanings, comparable to the most conventional of modern agricultural practices and with all the same destructive potential accrued from their speculative nature.

- "C'mon Miguel, open your mind! - I've heard the conciliatory voice of a friend working with an international organization - if you call them plantations, they (plantations' owners) won't improve their practices and won't go for certification!", he moaned.

I didn't take that so seriously as I've heard from plantation company executives that they haven't changed their routine practices to get FSC certification, anyway.

But the fact is that ghosts are not as dreadful as large-scale tree monocultures. You can deal with ghosts at an imaginary level. Plantations are real and spreading as pests, replacing forests, savannas, prairies, swamps, deserts and many other valuable environments. In many cases, they also expand at the expense of people's livelihoods. This is what I call creepy!

- "So my friend, - a participant from the Middle East inquired – do you think plantations are as bad as a bunch of trigger-happy Western soldiers shooting at everything that moves?"

No, of course not. They don't shoot at you, they are less bloody than that, but now they're also planting them for the sake of oil!

Gladly, the meeting at least recognized that there are negative sides to plantations. Although, they insisted in proving the improbable: that plantations, in general, are part of a continuum of forest types. Hey… this is what we call fragmentation, ecological disruption, and land-use conversion!

- "Well, it's all a matter of definitions." An expert told me. Look, if you use the FAO definition, as I think everybody should, we'll expand the forest cover by far!"

- "This is the problem; we're talking about different things here." I replied. "What people call a ghost is just a figment of their imaginations, and in your imagination a plantation is a forest. You shouldn't allow your fantasies to blindfold you."

Nevertheless, some experts made some concessions and recognized that large-scale tree mono-crops are quite different from small mixed-species community-driven plantations, and even more from forests. But the overwhelming belief among experts is that as trees are the dominating beings in both, forests and plantations, they're both forests, and defining them is just a semantic issue.

Well, so much for semantics when subsidies and public funding are at stake. At that point, the opportunities for companies to plant large sways of monocultures

instead of creating systems comparable to original local forest types are weighed. The results will almost always favour the big and easy monocultures, as companies exist for profit and not for anything else.

Another ghostly concept emanated from a few of the presentations and that kept floating around at the meeting, was that sustainability means eternal ever-growing consumption. You got to believe in ghosts to believe this one, especially when it's known that at least a half of all the paper consumption goes to junk-mail and packaging, and more than three quarters of the global deforestation is due to conversion to plantations of all sorts!

Now, that's the ultimate woe! *Who're ya gonna call? Plantations busters* like in the movies? Well, this isn't a movie, it's real life and it's not possible to bring a huge vacuum cleaner to get rid of large-scale monocultural plantations.

No one denies the current deficit of trees and the quasi-criminal deforestation process waged for the sake of wasteful consumption. Though, as seen throughout the history of deforestation, I dispute that by simply planting enormous ever-enlarging areas of monocultures we're going to halt deforestation and do any justice to forest peoples.

Solutions to deforestation should start by recognizing the real role forests play in giving life to the Planet and by respecting the rights of forest peoples. Yet, I know for some people this is much more terrifying than any ghost. (By: Miguel Lovera, WRM Bulletin Nº 69, April 2003).

The plantations' issue in the agenda of the World Bank's FPIRS

The World Bank is not a monolithic structure and many staff members are increasingly aware about the impacts that large-scale tree monocultures have on people and the environment. However, there are signs that within the Bank's higher hierarchies there is a will to promote such plantations, either as carbon sinks or as providers of raw material for the paper, timber and palm oil industries.

The regional consultations which the Bank is organizing within the FPIRS (Forest Policy Implementation Review and Strategy Development) process constitute a good opportunity to bring up this issue and to provide the Bank with further information and analysis, which could result in strengthening the positions of those staff members critical about plantations. The country studies carried out by the Bank's own Operations Evaluation Department (OED) contain useful information on the impacts of plantations, but it needs to be stressed that such information – strangely enough – was not included in the OED's main report.

The regional consultations can also provide an opportunity to highlight that the promotion of large-scale tree monocultures is contradictory with at least two issues which the Bank is mandated to address: poverty alleviation and

biodiversity conservation. The substitution of forests with plantations – a widespread practice in the tropics – results in the further impoverishment of forest and forest dependent peoples, and therefore Bank's support for such projects would mean a clear breach of its mandate. On the other hand, there is ample evidence that large-scale tree plantations generate very few, badly paid, seasonal jobs, thus not constituting a solution to alleviate poverty.

The Bank is one of the implementing agencies of the GEF (Global Environment Fund), one of whose thematic areas is biodiversity conservation. The substitution of diverse forest and grassland ecosystems by monoculture tree plantations results in huge impacts on local flora and fauna and is therefore contradictory with the conservation of biological diversity which the Bank is mandated to protect.

It is important to highlight that there are many different types of tree plantations, many of which can be very beneficial to people and the environment. The regional consultations can also be a starting point to provide Bank people with information on those types of plantations and which should be the conditions to be met for plantations to be considered beneficial.

In sum, the FPIRS process constitutes an excellent opportunity to bring up the plantations issue and to try to make Bank staff aware of the impacts of the prevailing forestry model and of the number of struggles that it will be responsible for unleashing if it chooses to support the further spread of large-scale tree monocultures. (WRM's special bulletin on FSC certification of plantations, February 2001).

For the FSC Plantations are not forests

One of the main problems for those struggling against large-scale industrial tree plantations is the existing confusion (generated by the UN Food and Agriculture Organization) between forests and plantations (i.e. "natural" forests and "planted" forests.) The FSC's definition contributes to support such confusion by stating that plantations are forests: "Plantation: Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silviculture treatments." That definition enables the FSC to include plantations in its list of "certified forests".

The FSC's definition might be a useful way of defining Northern managed forests, where the original forest has been so simplified that it has become more akin to a plantation than to a forest. But it is not useful at all for people struggling in Brazil, Indonesia, South Africa, Thailand and many other countries against large-scale monocultures of exotic species such as eucalyptus or pines. Such plantations are not forests: they are tree crops.

In spite of the propaganda about "plantations helping to alleviate pressures on forests", experience has proven that not only do plantations not alleviate pressures on forests but, on the contrary, that they are a major direct and indirect cause of deforestation. At the same time, they result in widespread environmental and social problems.

What foresters call "afforestation" – creating so-called "forests" where they didn't exist before – usually results in environmental destruction insofar as diverse local ecosystems are replaced by uniform tree monocultures. Despite the FSC's focus on the protection of forests, this type of environmental degradation was not sufficiently taken on board when the organization elaborated its principles and criteria. That perhaps helps explain the contradictions of certification in countries such as South Africa, with its predominant grassland ecosystem (see article below).

The FSC was created to protect the world's forests and forest peoples against destructive logging practices, by promoting the sustainable use of forests. Large-scale monoculture tree plantations have little in common with forests and result in serious environmental and social problems. We therefore strongly urge the FSC to exclude such type of plantations from its mandate. (WRM's special bulletin on FSC certification of plantations, February 2001).

WRM Comments on the FSC's Principle on Plantations

It is important to begin by highlighting the fact that to receive FSC certification, a plantation company needs to comply with all FSC's principles and not only with the principle concerning plantations specifically principle 10. Having said that, we shall focus on principle 10, which, as it currently stands, appears to allow unsustainable industrial tree plantations – particularly in the South – to receive certification in spite of their negative social and environmental impacts. What follow are comments on the different criteria included under principle 10.

"Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests."

In the South, all of these claims have already been proven unachievable in practice:

- Large-scale industrial monocrops have provided "an array of social and economic benefits" only to the rich.

- What does "can contribute to satisfying the world's needs for forest products" mean in a Southern context? Plantations produce only two forest products:

timber and pulpwood. These two – and especially the latter – are aimed at endless over-consumption by Northern countries and Southern elites. The beneficiary is therefore not "the world" but the rich world. All the other products which are produced by real forests (food, fodder, water, medicine, shelter, fuelwood, etc.), which satisfy the needs of local communities, are almost totally absent from plantations and the local world therefore does not benefit from plantations.

- In most cases, plantations have resulted in the destruction of native forests or other native ecosystems such as grasslands and have not contributed to "complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests". The fact that, despite this, the principle states only that plantations "should" promote conservation, not that they "must", signals its detachment from the real world.

"Principle 10.1. The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan."

- The management objectives of industrial plantations are always explicitly stated: the production of large quantities of timber in the shortest time possible. Large plantation companies often write natural forest conservation and restoration objectives into their plans, but more as a public relations exercise than as a genuine management objective.

"10.2 The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamline zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape."

- There is no positive relationship between industrial plantations and forest conservation. Wood produced in industrial plantations does not, as a rule, substitute for wood extracted from natural stands: the former is mostly aimed at the production of pulp and paper, while the latter is aimed at the timber industry, which requires high-quality wood.

- There are a number of negative relationships, through which large-scale plantations actually promote deforestation. In the first place, most plantations in the tropics substitute for primary or secondary forest, which are clearcut and/or set on fire prior to planting. Secondly, people displaced from their land by plantations have to clear new forest areas in order to survive. Thirdly, it is not unusual for the news that plantations are going to be established in a certain area to result in its deforestation by local speculators in order to be able to sell

the land to the plantation companies. Additionally, roads leading to plantations upen up new forest areas to encroachment. Fires originating in plantations, in addition, can extend to nearby forests. in consequence, large-scale plantations are usually both direct and indirect causes of deforestation.

- Most plantation companies are able, if pressed, to make at least a token attempt to set up "wildlife corridors, streamline zones and a mosaic of stands of different ages and rotation periods." However, this does not mean that local ecosystems (forests, grasslands, wetlands and so forth) will not suffer, because there will usually be a number of companies occupying a given area. Wildlife corridors isolated within a sea of eucalyptus or pines are not of much significance for the conservation of wildlife. The same is applicable to the preservation of streamline zones. The impact of these plantations on water must be dealt with at a basin level and not at plantation level. The impact of large masses of fast-growing trees in a given area have already resulted in the disappearance of water courses and profound changes in the water cycle. Finally, almost all companies plant what could be loosely interpreted as "mosaics" of stands of different ages and rotation periods. By itself, however, this implies nothing about the impacts on water, soils, flora and fauna. The size of each "tile" in these so-called "mosaics" is likely to be far larger than in a forest because it is determined by the commercial need to be able to have something to harvest every year, not by ecological criteria.

- What is the meaning of "The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape"? What happens in cases such as Uruguay, Argentina and South Africa, where plantations are established on grasslands? Such plantations have already been certified in those three countries. Can this be interpreted as meaning that grassland ecosystems are unimportant to the FSC? And in all cases, how can a eucalyptus or pine plantation "be consistent with the patterns of forest stands found within the natural landscape"?

"10.3. Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures."

- This clause is so vague that it could be satisfied merely by planting two species of eucalyptus in a huge industrial plantation rather than just one, and planting two different areas a couple of years apart rather than planting all the trees at once. In fact, most large industrial plantations already comply with the letter of this principle simply because to do so enhances economic stability (more protection against specific predators). However, such inadequate measures cannot appreciably enhance either ecological or social stability (although the protection against pests provided by some diversity could protect the jobs of

plantation workers who might otherwise lose their jobs if the plantation were to be decimated by insects or fungi). And even this call for minimum diversity is not mandatory but merely "preferred".

"10.4. The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease or insect outbreaks and adverse ecological impacts."

- This criterion leaves the door wide open to fast-growth exotic tree plantations, which "are based on their overall suitability for the site and their appropriateness to the management objectives" (the production of large volumes of homogeneous raw material for industry). Native species are again only "preferred", not "required", and if "performance" is measured only by how much industrial wood a species produces, then all industrial plantations will comply with this criterion automatically. There is therefore a need to define "performance" clearly, because most native species' "performance" in the production of water, soil, food, medicine, fodder, etc. is usually far better than that of alien species which produce little – or none – of these goods. The last sentence ("Exotic species … shall be carefully monitored to detect unusual mortality, disease or insect outbreaks and adverse ecological impacts") is very confusing. Are the adverse ecological impacts referred to impacts on the plantation or of the plantation on neighbouring ecosystems and local production?

"10.5. A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover."

- Here again appears the confusion between forest and plantation. (the "overall forest management area" includes industrial plantations, which are not forests.) In addition, what "proportion" of the plantation is to be returned to "natural forest cover"? One per cent? 10 per cent? 50 per cent? Who will determine the regional standards? What if the area never had forest cover (e.g. Uruguay, Argentina, South Africa)? Are plantation owners then exempted from restoring part of their operations to non-plantation vegetation?

"10.6. Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns."

- If this criterion were to be applied consistently, then no large-scale, fast growth, exotic tree plantation could be certified. Yet if applied carelessly, the criterion would allow a great deal of environmentally damaging practice. Who will decide whether this clause has been met or not? Most large plantation companies include (at least on paper) measures and techniques for environmental conservation. However, all their activities will necessarily have impacts – almost always deleterious – on soil structure, fertility, biological activities and water. From our perspective, there is already enough evidence that, other things being equal, the species, harvesting methods, and maintenance techniques chosen for industrial monoculture plantations will result, as a rule, "in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns." Yet of course theoretical studies can be found that claim that this need not be the case, and company studies that claim that fertility and hydrology have not been affected. Who will decide which experiences or set of studies are to be taken seriously? The FSC criterion is mysteriously silent about this key question.

"10.7. Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7."

- This clause relies so heavily on vague wording such as "minimize", "primary reliance", and "every effort" that it becomes worthless in practice.

- What are referred to as "pests" and "diseases" are frequently those native species which happen to be able to find food within the plantation (a food desert for most native fauna). Eradicating them is in fact a blow to local biodiversity. "Integrated pest management" is hardly great boon in itself if it implies nothing more than the protection of the exotic species against its few local (or exotic) predators. In addition, companies can easily claim that they are "making every effort" to move away from chemical pesticides and fertilizers without actually doing anything to lower their chemical use. In accordance with clause 10.6 (soil fertility), they will argue that there is no available substitute (given the scale of their plantations) to chemical fertilizers. They are already trying, they will say, to replace pesticides with silvicultural methods (thinning, prunning, spacing, etc.) for economic reasons, but, sadly, must still rely on chemical pesticides to a high degree. It is revealing, moreover, that criterion 10.7 says nothing about "moving away" from using herbicides, which are also harmful chemicals.

- In many countries, plantation trees themselves easily become "invasive plant introductions". What "measures shall be taken to prevent and minimize" such

introductions in South Africa, for instance, where it is the introduced eucalyptus, wattles and pines which have turned into "invasive species" in the native ecosystems?

"10.8. Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access."

- This is perhaps the best-written criterion. However, its presupposition that "local trials" – which are always small-scale – can prove the appropriateness of a large-scale industrial planting of a species to an ecosystem in general is mistaken. Small local trials can determine, up to a point, likely rates of growth of an industrial species on a site. They can also determine, to a certain extent, whether the species is likely to be invasive (although if it is in fact invasive, the trial itself will probably result in an invasion). But the only effective test of the social and environmental effects of large-scale plantations are large-scale plantations themselves. The criterion should therefore be revised to specify that no plantations will be certified in areas where there is enough evidence of substantial negative impacts (social, environmental or both) caused by existing large-scale plantations.

- The last sentence ("Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access") points in the right direction, but what does "special attention will be paid" actually mean? Does it mean that no certification will take place if any local right has been violated? What if the violation occurred at the hands of speculators or the government before the company bought or rented the land? And again, who decides whether enough "attention" has been paid to land rights issues? The clause is tellingly silent on this question.

"10.9: Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion."

This raises a series of questions – why November 1994? Why "normally" shall not qualify for certification – who decides what is "normal"? Who judges the

evidence presented and on what criteria? Would a signed slip of paper saying "I wasn't there when it happened and I didn't do it" suffice? If a second company buys up the plantation from the company responsible for clearing the forest, can the second company then be certified? Presumably the second company wasn't directly or indirectly responsible for the "conversion".

In sum, Principle 10 does not seem to offer nearly enough guarantees to end-consumers that wood from industrial plantations is produced in a socially equitable and environmentally-friendly manner. Neither is the principle very useful for people struggling against plantations at the local or national levels. The main issue (large-scale monocrops) is not taken into account. The problem is not the tree species (eucalyptus, pines, acacias, etc.) but the overall plantation model, which the FSC unjustifiably accepts without discussion. We believe that this principle is clearly insufficient and needs to be substantially modified before it can be said to be appropriate to the reality of large scale industrial tree monocrops. (WRM's special bulletin on FSC certification of plantations, February 2001).

The ITTO raves about plantations

The International Tropical Timber Organization has dedicated an entire issue of its Newsletter (Vol. 11 No 3, 2001) to tree plantations. Unfortunately, the ITTO has chosen to publicize their allegedly positive impacts, while basically ignoring the numerous struggles against them resulting from the broad range of negative social and environmental impacts they entail.

The opening paragraph of the first article sets the scenario: "The way some people talk, tree plantations are the answer to more than a few global problems. They reduce deforestation, restore degraded land, fight climate change, improve local livelihoods, return good profits, create employment and bolster national economies."

One could assume that the second paragraph would put some question marks on those assertions or provide some evidence to support them. Regretfully, this is not the case. It is therefore necessary to bring in some reality to that scenario.

Do plantations reduce deforestation? The history of large scale plantations in the tropics proves the contrary. Plantations are either a direct cause of deforestation or an indirect cause or both. We all know (and the ITTO knows) that the famous fires in Indonesia were started by plantation companies and that forest areas in numerous countries have been cleared to give way to plantations We all know (and the ITTO knows), that many thousands of people throughout the tropics have been displaced to give way to plantations and that, as a consequence, these people have had to clear new forest areas to provide for their livelihoods.

Do plantations restore degraded land? Commercial plantations are never implemented in truly degraded lands, for the simple reason that trees don't grow fast enough in that type of land and that they are more prone to sanitary problems. These plantations require good quality soils and increased mechanization also implies the need for land which allows the use of machinery – the same type of land used in agriculture. They are therefore implemented either in good quality soils or in areas "declared" as degraded (usually meaning deforested or containing secondary forest), but which are not considered to be degraded by the local communities that are using them.

Do plantations fight climate change? The fact that plantations have been included in the Clean Development Mechanism cannot be considered as scientific evidence about this alleged role. On the contrary, there is a growing body of scientific evidence suggesting that they may even become sources of CO2 instead of acting as sinks. Additionally, deforestation directly or indirectly linked to plantations may prove to generate more CO2 than the amount allegedly captured by plantations.

Do large scale plantations improve local livelihoods? All the available evidence proves exactly the contrary and the ITTO should know that in the "normal" situation local people end up in a much worse situation than before the plantations were implemented. Their resulting opposition is confronted with repression and people are killed, injured, imprisoned and are finally evicted from their land.

Do plantations return good profits? This is the only absolutely true statement in the paragraph, but it lacks mention of who obtains those good profits: plantation companies, the pulp industry, consultants, banks, machinery producers. Not local people. Additionally, it does not mention that the reason for returning good profits is that in all cases plantations are directly or indirectly subsidized. In many cases plantation companies receive direct subsidies, tax breaks or soft loans. In other cases, subsidies take the form of cheap land, free research, road building, port facilities. And in many cases they are subsidized through the use of the police or the army to protect corporate interest against local peoples' resistance.

Do plantations create employment and bolster national economies? Large scale tree plantations are almost certainly the worst available option for generating employment in the tropics and the situation is increasingly worse due to the adoption of modern machinery that displaces workers, particularly in harvesting operations. To make matters worse, subcontracting is now widespread and subcontactors compete among themselves through lowering labour conditions (low salaries, inexistence of health security and social benefits, low quality housing and food, etc.). From a national economy viewpoint, plantations generate some hard currency through exports, but international prices of both logs and pulp are subject to severe drops, tendency which can be expected to grow as more plantations reach their harvesting time.

In sum, the whole issue of the ITTO newsletter is misleading and does not incorporate the differing viewpoints of the many people that are suffering from plantations or the many studies which have recorded the social and environmental impacts of this type of plantations. And even more misleading is the paragraph which states: "What is more certain is that if environmentalists get their way, one day all the world's wood will come from plantations. 'Plant up the millions of hectares of degraded land and leave the natural forest alone,' they say." Who are "they", may we ask, because it's certainly not the view of the hundreds of organizations the WRM works with, who are actively opposing this plantation model. (WRM Bulletin Nº 52, November 2001).

The Greening of Corporations

The profit-led corporate logic is determining our future, and that of generations to come, shaping the emerging international system which is today dominated by institutions that favour corporate rights. The outstanding outcome of present globalisation – privatisation and deregulation – have allowed corporations to usurp the natural basis upon which all life depends.

As the World Summit on Sustainable Development (WSSD) approaches, conflicts intensify between North and South, civil society and industry.

For Johannesburg, talks concentrate on a Plan of Implementation/Action intended to develop national and global policies and programs, and a Political Declaration, in which governments are expected to recommit to Agenda 21 and the pursuit of "sustainable development": these are called Type I outcomes (obligatory). Type II (voluntary) outcomes are a new and controversial category: partnership projects aiming to implement "sustainable development", with a strong focus on participation of the private sector through private-public partnerships.

The current bias of the WSSD's Chairman's Text towards market-based delivery of services fits hand in glove with corporate campaigns in the run-up to the WSSD. Transnational mining company Rio Tinto's Lord Holme of Cheltenham, for instance, is vice-chair of BASD (Business Action for Sustainable Development), which is a joint campaign by the World Business Council for Sustainable Development (a coalition of 150 large corporations, currently chaired by Shell's Phil Watts, created to provide business input into the 1992 Earth Summit in Rio de Janeiro, which has contributed to blocking attempts to regulate business) and the International Chamber of Commerce.

The WBCSD for Johannesburg include promoting six sectoral projects run by working groups made up of WBCSD corporations. Forestry is one of the most controversial.

The "Sustainable Forestry Industry" project of the WBCSD started in 1994, when a group of companies led by Brazilian Aracruz Celulose and Finnish UPM-

Kymmene initiated a study focusing on paper production. The study was commissioned from an external body (the International Institute for Environment and Development or IIED). The report 'Towards a Sustainable Paper Cycle' was published in June 1996. The next step was the creation of the "Forest Dialogue", which included land owners, the forest industry, some NGOs and the World Bank. The goal of the dialogue, co-chaired by the WBCSD and the World Resources Institute (WRI), was to develop a consensus vision on the world forests and a range of concrete issues, such as mutual recognition of certification schemes for forestry industry practices.

The credibility of the self-proclaimed quest for sustainable forestry is seriously undermined by the shameful record of the two corporations that initiated the project. UPM-Kymmene is heavily criticised by forest campaign groups for its damaging activities in Indonesia, misconduct that continued after the launch of the "Sustainable Forestry Industry" project. In 1997, the Finnish wood products giant got a paper plant in Changsu, China, which processes pulp from PT Riau Anadalan Pulp and Paper (RAPP), the second largest pulp producer of Indonesia. RAPP's mill in Riau, Sumatra, was expanded with a $750 million investment package supported by the Finnish and Swedish export credit agencies. The Riau mill produces 750,000 tones of pulp each year by logging the natural rainforest, substituting over 50 species of tropical hardwood for acacia plantations. Local communities have suffered severe impacts, the river essential for their livelihood has been polluted, they have been evicted from their lands with no compensation and have faced physical violence when protesting. UPM-Kymmene pulled out of RAPP, but still uses RAPP's pulp for its paper production in China.

The other founder of the WBCSD forestry project, Aracruz Celulose, specialises in bleached eucalyptus pulp. The company is particularly infamous for its destructive social and environmental impacts in the Brazilian states of Espirito Santo and Bahia. Aracruz has flooded the regions with extensive monoculture tree plantations and uprooted indigenous peoples such as the Tupinikim and the Guarani from their lands. It has turned what used to be the Mata Atlantica rainforest into a green eucalyptus desert. The impacts on local communities and the environment has led to the creation of a broad opposition movement – the Alert Against the Green Desert Movement – which groups indigenous peoples, afro-descendent communities, fisherfolk, farmers, the landless peasants' movement, environmental and social NGOs, among others.

Those are the "green credentials" of the Sustainable Forestry Industry's two corporate leaders. Will the WSSD give further "sustainable development" credentials to a corporate sector which can only be portrayed as socially and environmentally conscious through their channelling of millions of dollars to public relations companies eager to "green" them? (WRM Bulletin Nº 61, August 2002).

FAO's "forests" or how to cheat at patience

FAO (Food and Agricultural Organization) is cheating at a game of patience. And pretends that nobody notices it. All over the world we are watching the alarming destruction and degradation of forests and in this process the rights of indigenous peoples are being violated, watersheds are being affected, whole regions are being altered, the climate is being de-stabilised and species of flora and fauna are disappearing.

However, FAO (the United Nations Food and Agriculture Organisation), considered by many international bodies and by the forestry profession as the maximum authority on the subject of forests, is manipulating data on the true situation in such a way as to cover up the seriousness of the destruction process. Thus, in its report "Global Forest Resources Assessment 2000" (FRA2000) it introduces changes into its previous definition of forests, not to update it from its obvious obsolescence but to make it worse. Thus FAO manages to reach the conclusion that, in comparison with former assessments, an increase has taken place of the world forest cover. Nobody – not even themselves – believe it, but at least they are trying.

This conclusion is reached through the manipulation of its definitions which, inter alia, state that "Forest includes natural forests and forest plantations. It is used to refer to land with a tree canopy cover of more than 10 percent and area of more than 0.5ha". This definition has been justifiably ridiculed on an international level, as it implies that a major part of the city of Asunción (capital of Paraguay) should then be considered as a "forest."

With a stroke of the pen, applying this definition of forests, FAO has managed to lower deforestation rates and thus today there are 400 million hectares more of forests than the world figures for 1995. According to FAO itself: "Despite the high losses of the world's natural forests at the global level, new forest plantation areas are being established at the reported rate of 4.5 million hectares per year" and this results in a significantly lower net rate than that recorded in the previous FAO report, corresponding to the period 1990-1995. Although it does not use these same words, it may be inferred that insofar as plantations compensate for the loss of forests, there is no cause for concern, and the "forest cover" will have been maintained. So, FAO goes on cheating at this game of patience. Or is this its way of fulfilling its function in its capacity as Sectoral Co-ordinator for Chapter 11 of Agenda 21 (of the Earth Summit): "Combatting deforestation"?

What is behind this game? In the first place it should be noted that the plantations included are only industrial tree plantations, mostly aimed at wood production. Not included in this definition are trees for other purposes, such as fruit-trees or coconut plantations or agroforestry systems. And here we have an interesting

case: why are the rubber tree plantations, formerly not considered as forests by FAO, now included as such? The reason is very simple: now rubber tree plantations have started to be increasingly used as wood and therefore acquire – for FAO – visibility as forests. But they continue to be the same as before. Why can't plantations of other types of trees such as orange trees, banana trees or coconut trees be considered as forests? The answer is clear: because they are not intended for the production of wood. And this shows one of the concepts at the root of this definition and all it implies: a forest is not seen by FAO as what it is – a complete ecosystem including the human communities that depend on it – but exclusively as producing wood.

Ten years after the Earth Summit, at the level of this "expert" organisation, not only has nothing changed for the better in this respect, but things have got worse. And this cannot be attributed to ignorance, as much has been said – and fully documented – on the subject. Even when FAO tries to open up the umbrella by stating that it does not "intend to imply that plantations are equivalent to natural forests," and that "great care has been taken to keep the statistics for natural and planted forests separate" – though only in Southern countries – what is true is that for FAO both categories continue to be just one and the same: forests.

It is illustrative to summarise here a written exchange which took place recently between a FAO staff member and a South African environmentalist regarding the area which – according to FAO statistics – is covered by forests in that country. The FAO staff person finished his argument by saying "Forest plantations are areas with trees, and therefore a (kind of) forest." And the environmentalist replied: "by the same token, it could be claimed that locusts are a 'kind of bird' or that cornfields are a 'kind of prairie.'"

Placing tree plantations on the same level as forests implies ignoring the various functions the latter fulfil: they are home to millions of people, they provide them with food, medicines, fibres, firewood, building materials, they regulate the local water regime and the global climate, just to mention a few of them. It also implies ignoring the long struggles taking place in many countries, both in the South and in the North (from Australia to Chile, from Spain and Portugal to South Africa and Brazil, from Thailand to India) against the invasion of large-scale monoculture tree plantations, so frequently carried out in detriment to forests. These struggles are not against the forests, but against the plantations, precisely because these do not have anything in common with forests and have a serious impact on local communities and their environment.

It is important to point out that within the orientation given to the approach towards forests, the promotion and legitimisation of industrial tree plantations are a perfect fit within the framework of the Green Revolution, promoted since decades ago again by FAO. All this is joined, and the various ramifications and connections

link the deforestation process to cover industrial needs, with the invasion of monoculture tree plantations to feed the paper industry, with those who promote these processes – major transnational companies – through an international web of organizations at their disposal, among which the WTO, the IMF and various international instruments.

In this process, the latest biotechnology findings are integrated into the technological package that has accompanied and continues to accompany agro-industrial production – weed-killers, pesticides, fertilisers, etc. – first of all expressed in the already widespread techniques of selection and cloning of the most suitable genotypes for industrial purposes, with the intention of going on to use genetic manipulation. Presently, the major companies are involved in this, injecting money into academic research centres and attempting to take their dangerous experiments out to the field. FAO does not say anything in this respect, but will surely include plantations of transgenic trees – if we allow this to happen – as "planted forests" helping to maintain the "forest cover" of the planet.

All this is serious. And even more serious coming from an organisation that has the mandate of monitoring how forests and their resources are used to improve the population's economic, environmental, social and cultural conditions, guaranteeing the conservation of resources to satisfy the needs of future generations. And furthermore, FAO is an active part of the World Summit on Sustainable Development, preparing official documentation, part of which is the assessment of progress made, including insufficiencies and deficiencies.

Once again we stress the imperious need for the eradication, once and for all, of productivist and reductionist conceptions of one of the most biodiversity-rich ecosystems – the forest. In order to analyse clearly what is happening with the forests, it is essential to establish a clear differentiation between plantations and forests. A plantation may be considered as positive or negative and it is good that the necessary conditions for it to be positive for people and the environment are discussed. But it can never be considered to be a forest. It is time that FAO's definitions on forests are definitively shelved – as part of the history of forest thinking – and that it be explicitly recognised that a forest is much more than a collection of trees aimed at producing wood and that a plantation is not a forest. It would be an enormous contribution to the forthcoming Johannesburg summit meeting. (WRM Bulletin Nº 61, August 2002).

The UNFF must acknowledge that plantations are not forests

The United Nations Forum on Forests (UNFF) will be meeting in Geneva from 26 May to 6 June. NGOs and IPOs have expressed some of their concerns to the UNFF secretariat in April this year (see http://www.wrm.org.uy/alerts/april03.html), concluding that "if these points are not addressed soon, the UNFF

will lose its credibility with civil society groups and indigenous peoples and subsequently with governments."

The UNFF stems from the 1992 Earth Summit process, when governments acknowledged the forest crisis and agreed on the need of initiating a process to address it. As a result, the Intergovernmental Panel on Forests (IPF) was created, followed later by the Intergovernmental Forum on Forests (IFF) and finally by the current UNFF.

The mission of all those processes has been basically the same: "to develop coherent policies to promote the management, conservation and sustainable development of all types of forests."). However, the entire process has little to show regarding real achievements in implementing that mandate and forests continue to disappear at an alarming rate. In spite of that reality, some governments insist that the situation has in many cases improved and that "forest cover" has in fact increased. They even have figures to prove it. But this is not true. The increase in so-called "forest cover" is due to the fact that monocultures of alien tree species are considered to be "forests", thus hiding the real deforestation rates.

Incredibly enough, the UNFF and its predecesors – the IPF and IFF – still insist in considering plantations to be "planted forests", thus alienating support to this process by the numerous communities affected by plantations and by NGOs and IPOs supporting those communities.

A number of events that have taken place during the first months of 2003 are clearly showing this divorce. Opposition to plantations from civil society was expressed in several events, starting in January, when a number of Latin American NGOs attending the World Social Forum in Brazil met to share their concerns regarding the promotion of large-scale tree plantations in this region. As a result, they created the Latin American Network Against Tree Monocultures in order to coordinate actions to oppose plantations.

In April, a seminar-workshop organized by the government of Ecuador to discuss a national plan for afforestation and reforestation resulted in a strong declaration from indigenous and peasant community respresentatives, stating that "large-scale commercial tree plantations, particularly monocultures, not only do not constitute a development alternative but, on the contrary, result in a number of problems" ... "because plantations are not forests" (see article on Ecuador in this book).

At the beginning of May, NGOs from Thailand, Cambodia, Laos and Vietnam organized a "Regional workshop on commercial tree plantations in the Mekong region", the aim being to organize regional opposition to the spread of such type of plantations, which have already proven to have negative impacts on people and the environment, particularly in Thailand, which has a long history in this respect.

In mid-May, Brazilian social and environmental organizations met in the state of Minas Gerais to strengthen the Network Against the Green Desert – meaning eucalyptus plantations – and to incorporate organizations from this state to the already organized in the neighbouring states of Espirito Santo, Bahia and Rio de Janeiro.

While local people affected by plantations organize opposition to confront them – the South African Timberwatch Coalition constitutes an additional example – the UNFF provided a forum to promote them. In March, a number of governments and international organizations organized a UNFF Intersessional "Expert Meeting on the Role of Planted Forests in Sustainable Forest Management", held in New Zealand. Most of the organizing countries have extensive commercial plantations (such as Australia, Argentina, Canada, Chile, Malaysia, New Zealand and South Africa) and the obvious reason of this meeting was to provide further support – from the UNFF – to the promotion of plantations.

It is sad to note this widening gap between the UNFF and local organizations on this issue, but the solution is – in theory – quite simple. The UNFF should focus on the protection of forests – which is its mandate – and distance itself from monoculture tree plantations – which is not. Instead of asking "experts", UNFF officials and government delegates should ask local communities in Chile, Brazil, Colombia, South Africa, Indonesia, Malaysia, Thailand, New Zealand, Australia, Spain, Portugal – to mention only some – if they consider plantations to be forests. The answer would be very clear: of course not!

If the UNFF process aims at having a positive impact in forest conservation – which we believe to be the aim of many of its officials and delegates – it must acknowledge that plantations are not forests. This would enable this forum to focus on the true reason for its existance: "to develop coherent policies to promote the management, conservation and sustainable development of all types of forests." (WRM Bulletin Nº 70, May 2003).

LOCAL STRUGGLES AND IMPACTS

It is not by chance that most of this book is dedicated to highlighting local struggles against plantations. Firstly, because a large part of the existing knowledge regarding the impacts of plantations originates precisely in the populations affected by them. It has been them who have been evicted by plantations, whose human rights have been violated, that are deprived of their means of livelihood, who experience the depletion of water resources, the disappearance of local animals and plants.

Secondly, because it is important to underscore that large-scale tree monocultures generate similar impacts in totally different social, economic and

environmental environments, ranging from scarcely populated grassland ecosystems (such as in Uruguay) to more densely populated forest ecosystems such as in Thailand.

Finally, because highlighting local struggles implies in some way supporting them in their opposition to a forestry model that has already proven to be unsustainable, thereby collaborating in substituting it with other ways of using Nature which are more socially just and environmentally sustainable.

AFRICA

Cameroon: Tree plantations, A false alternative to deforestation

A number of tree plantation programmes were implemented in Cameroon in the 1950s, when the territory was under French colonial rule, allegedly to address the process of destruction affecting the country's rich rainforests. As a result, about 40,000 hectares of plantations were set up in a period of 50 years, 25,000 of which in areas formerly occupied by dense rainforest, and the remaining 15,000 hectares in the savannah. Indigenous species – such as dibetou, okoumé, ilomba and iroko – were used to reforest woodlands, while in the savannah both native and exotic species – among which eucalyptus and acacia – were used.

Although the stated aim of the authorities was to restore "the natural forest" in fact such plantations were not only not the solution, but have caused negative impacts.

The main reason for this failure is that a plantation of one or two single species – even native ones – is not a forest, since it lacks its biodiversity and complexity. A forest is the product of a long coevolution process among its different components – including humans – and the ecological conditions of the site. The recovery of a rainforest in tropical areas is a very difficult task with uncertain results, since the former conditions cannot be recreated artificially all of a sudden.

Afforestation with eucalyptus has made matters even worse. Eucalyptus planted by the National Bureau for Forest Regeneration – as if forests could be "regenerated" using eucalyptus! – in the last two years caused soil acidification and a drastic drop in the fish population of the rivers nearby the plantation. They have increased the risk of fires in the savannah and are held responsible for the increase of severe floods.

Since in Cameroon the state claims property over all trees, plantations have provoked conflicts over land tenure between the government and local communities. Additionally, they have generated other problems, as in the case of the northern Sahel region, where local peasants complain that tree plots shelter crop-devastating bird and animals that have brought hunger and misery

with them. It is feared that in case tree plantations are accepted as carbon sinks by the Convention on Climate Change, the ongoing projects will be reinforced and new ones will be implemented, thus increasing the level of negative impacts on people and the environment.

Halting the deforestation and forest degradation process in Cameroon requires to address and overcome the real causes of the problem, among which the depredatory activities of logging companies and the International Monetary Fund's imposed policies promoting the exploitation of timber to increase the country's export revenues. Tree plantations are not the solution – they are not forests- and will instead only add to the problem. (WRM Bulletin Nº 39, October 2000).

Cameroon: Oil palm, people and the environment

Oil palm plantations in Cameroon cover more than 80,000 hectares divided in three different sectors: 1) large scale industrial plantations, with some 58,000 hectares; 2) Village plantations comprising 12,000 hectares and 3) "Informal" plantations covering some 10,000 hectares.

Village plantations were promoted by the state for the supply of the large state-owned plantation and processing companies. The former are plantations which are contractually obliged to deliver, at market prices, their entire production to the processing plants of the – now privatized – agroindustries: SOCAPALM, CAMDEV or PAMOL. The "market price" is obviously established by these enterprises, which at the local level constitute absolute monopolies.

The above situation has recently led to an increasing gap between small producers and large estates. The "informal" plantations have increased and deliveries of palm fruit to large processing plants have progressively diminished. Villagers prefer to either process their harvest themselves or sell to smaller processing units, from whom they usually obtain a higher price and cash payments. Until the early 1990's, the price established by the companies was considered to be too low, which led to diverting small-scale production to other buyers. Once it became evident that the agroindustries' own production was insufficient to cover their processing needs, they were forced to increase the price offered to outgrowers (from 26-31 francs CFA to 40-50 francs), in order to ensure raw material supply to the processing plants.

It is thus obvious that the complementarity between village plantations and the agroindustries has not been successful and that their relationship has been more based on competition than on complementarity. The sole fact that village planters refuse to even communicate their exact plantation areas to the companies is self-explanatory of this relationship.

Additionally, it is important to stress that the establishment of large-scale plantations has often been preceeded by the expropriation of land of the

neighbouring villages, without adequate compensation. According to the Cameroonian law, peasants do not own the land by customary right, and thus expropriation does not require compensation on the part of the State. This land property formula was already used in the times of colonization for expropriating the land of peasants and then tranferring it, without cost, to new settlers, who could then grow their crops. After national independence, this practice continued in force, now for the benefit of local élites.

The establishment of large private palm plantations – normally located in the surroundings of villages – requires considerable extensions of land, and several cases have already been reported of conflict arising with local communities living in the area from the modality and conditions of land acquisition by outsiders, who, with the support of the government, obtain lands over which they had no previous customary right. However, by cultivating an evergreen plant, like oil palm, they are entitled to permanent customary rights, which guarantee their rights in detriment of the local population.

In addition, oil palm plantations have resulted in a number of environmental impacts, among which deforestation, biodiversity loss and pollution due to extensive use of agrochemicals. All those impacts result in loss of livelihoods for local people and the deterioration of the environment in which they live.

It is important to highlight that no food crops are allowed within plantations, even at the early establishment phase of plantations, where local people could be allowed to cultivate food crops until palms start interlocking canopies. The socio-economic and environmental impacts of these plantations on adjoining towns and villages need to be investigated to reflect issues related to:

- Availability of local food staples (food more expensive in Limbe), forest foods supportive system (non timber forest products are expensive and need to be imported from other parts of the country), availability of local craft items and alternative income opportunities (income of plantation workers is very low).

- Impacts associated to deforestation, as various hazardous floods are now common in the zone (Limbe and Ekondo-Titi cases in 2001 and 1998 respectively).

- Impacts of pollution from agrochemicals, as there are claims that chemicals banned in industrialized countries are still being used by these corporations on the grounds of reduced cost, lack of supervision by the State.

- Impacts on human health, as plantations are located close to human habitations, and aircraft sprays drift to towns from sister banana plantations.

- Impacts associated to pest infestation and infectious diseases due to plantations.

- The enclavement of towns as there are no opportunities for expansion and hill settlement has become a common phenomenon, with implications for upstream and downstream conflicts emanating.

- Impacts on soil chemical/physical/biological properties from palm oil production effluents discharged into open land during processing, which render the land useless for any agricultural purposes. In spite of the existence of opportunities for converting the effluents into useful products, they continue being discharged untreated into the environment.

With the above impact assessment carried out, alternative positions to monocultural plantations can be suggested to reflect more environmentally-friendly approaches to land use patterns in the sub-region. (WRM Bulletin Nº 47, June 2001).

Congo, R.: Shell's eucalyptus plantations now provide even fewer jobs

Apart from its well-known oil operations, Shell company is also involved in a less known activity: tree plantations. The company has planted – on its own or in joint-ventures – almost 150,000 hectares of mostly eucalyptus and pine trees in Argentina (10,000), Chile (36,000), Republic of Congo (42,000), New Zealand (23,000), Paraguay (8,000) and Uruguay (28,000).

In the Republic of Congo (Brazzaville), Shell holds 90% of the shares of Eucalyptus du Congo (ECO-SA), while the government owns the remaining 10%. Its plantations are established on state-owned land near the coastal town and port of Pointe Noire. The plantations are composed of clones of Eucalyptus hybrids (*Eucalyptus alba* x *Eucalyptus urophylla* and *Eucalyptus tereticornis* x *Eucalyptus grandis*). The main market for these clonal plantations is the pulp industry and nearly half a million cubic metres of raw logs are exported each year to Norway, France, Italy, Spain, Portugal and Morocco for the production of pulp and paper.

As usual in this type of plantations, job creation by this company is poor: a mere 400 jobs. This means that – counting only the planted and not the entire area covered by the plantation – it requires 105 hectares to create just one job. But things have now got even worse. Last month, the company's administration decided to stop cutting and selling eucalyptus wood because of a fall in the international price, allegedly due to overproduction of this type of wood. As usual too, the cost will be borne by the workers. According to the company's manager Mr Perrin, the number of workers will decrease until "the price of wood returns to a correct level". In other words, "the market" will decide the fate of those workers.

This is one of the numerous examples regarding the unsuitabily of the large-scale monoculture plantation model as a means for the improvement of local

peoples livelihoods. In this case the company, with support and participation of government, has appropriated more than 50,000 hectares of land for an activity that produces very few jobs and generates very little export-incomes because it exports unprocessed logs. While the international price is high the company makes profits that do not "trickle-down" to local workers and communities. When the price is low, workers are dismissed.

Additionally, this situation offers yet another example of the pulp and paper industry's strategy to ensure a cheap and constant supply of raw material: to promote large-scale plantation of eucalyptus in countries that can produce vast amounts of cheap wood. This implies that trees must grow fast, that labour and land must be cheap and that environmental controls must be lax. Those needs of the pulp and paper industry are certainly met by the Republic of Congo. But they are also met by many other countries, which are encouraged, through different mechanisms, to dedicate vast areas of their territories to tree plantations. The result is a worldwide competition to sell the same commodity, which lowers the price – to the benefit of the global industrial and trade actors. (WRM Bulletin Nº 46, May 2001).

Côte d'Ivoire: Increasing conflict between smallholders and oil palm estates

In March 2001, planters at Cote d'Ivoire's Ehania agro-industrial oil palm plantation unit embarked on an "unlimited strike action" to press for an increase in the price of palm oil. The strike paralysed the activities of three factories that collect and transform palm oil. The Ehania planters, grouped in an agricultural cooperative called Palm-Ehania, were protesting against a drop in the purchase price of their produce, which had since January 2001 fallen from 23 to 19.07 CFA francs (1 dollar = 700 CFA francs). The cooperative's vice president Ahissi Brou, said "the drop in price may force growers to abandon the plantations." He said they were determined to pursue their strike action until their demands were met, arguing that it was "inconceivable" that palm produce prices drop while those of finished products such as soap or table oil were constantly on the increase.

This is not the first strike of this kind and there have been similar actions taken by outgrowers since the 1997 privatization of the previously state-owned Palmindustrie company. The assets of that company where bought by three large private enterprises: 1) PALMCI (Blohorn-Unilever and SIFCA-Cosmivoire), which acquired two thirds of the production capacity of Palmindustrie, including 9 processing plants and 35,000 hectares of industrial plantations; 2) SIPEF-CI, that bought 2 processing plants and 12,700 hectares of industrial plantations and 3) PALMAFRIQUE, with 3 processing plants and 7,500 hectares of plantations.

The plantations of those three companies constitute however only a third of the plantation area in Cote d'Ivoire, where smallholders have a total of 135,000 hectares of oil palm plantations. This situation is the result of the Plan Palmier launched in 1963, which outlined a program for the establishment of state owned nucleus estates (plantations agroindustrielles) and land belonging to contracted smallholders (plantations villageoises). Funds provided by the World Bank and the European Development Fund played an important role in enabling the implementation of the plan. The state released forest reserves for the new plantations and created a land tenure system whereby anyone working the land could have title to it. By 1984 the estates, operated by the parastatal Palmindustrie, constituted 60.3% of the area devoted to oil palm production and 39.7% was constituted by contracted smallholders. The current situation has drastically changed, with companies holding 30% and smallholders 70% of the plantation area.

Although there are already some examples of small cooperative-operated processing mills, the major companies are the main buyers of the outgrowers' production, which – coupled with the international drop in palm oil prices – are now leading to situations such as the strike at Ehania. In this case, the company involved is PALMCI, whose assets in the area include 11,600 hectares of plantations and three oil processing plants which also process the harvest of some 22,000 hectares of smallholder plantations. The company has more assets throughout the country such as:

- at Toumanguié: a 2,900 hectare plantation and one processing plant, with smallholder plantations totalling 15,000 hectares

- at Irobo: a 5,300 hectare plantation and one processing plant, with smallholder plantations totalling 12,000 hectares

- at Boubo: a 4,400 hectare plantation and one processing plant, with smallholder plantations totalling 10,000 hectares

- at Blidouba: a 3,000 hectare plantation and one processing plant, with smallholder plantations totalling 10,000 hectares

- at Iboke: a 5,700 hectare plantation and one processing plant, with smallholder plantations totalling 10,000 hectares

- at Néka: a 2,700 hectare plantation and one processing plant, with smallholder plantations totalling 12,000 hectares.

Within this context, the Ehania strike can be seen as a sympthom of the aspirations of those who now hold the largest part of the plantations vis a vis the three companies that hold the processing facilities and who establish the price for the raw material. Privatization has generated the scenario for this confrontation and the government is not even a neutral observer, being in this

case a PALMCI shareholder. The future is difficult to predict, but the most plausible hypothesis appears to be that – unless palm oil prices increase in the international market – conflicts will be on the rise. And, given the widespread promotion of oil palm plantations throughout the tropics, palm oil prices are most unlikely to increase. (WRM Bulletin Nº 47, June 2001).

Ghana: The documented impacts of oil palm monocultures

More than 125,000 hectares of land are under oil palm cultivation in Ghana, mostly under the nucleus estate model, which implies a large plantation surrounded by smaller plantations established in local farmers' lands.

The large scale plantations were implemented by the State at the expense of local peoples lands, with little or no compensation for the cottages, camps, and farms lost, together with various land-use or proprietary rights. As could have been expected, this resulted in social resistance, as in the case of the dramatic refusal of the migrant Ningo farmers of Atobriso and Okaikrom to grant government and Ghana Oil Palm Development Company officials entry into their acquired land. The peasants' resistance has also included pilfering of palm fruit from the plantations as well as acts of sabotage, which resulted in the tightening of security at considerable cost to the plantation companies.

But, according to Ghanaian researcher Edwin A. Gyasi, "perhaps the most serious adverse effect has been the rapid transformation of the forest ecosystem and its resilient diversified ecologically based traditional economy into a vulnerable artificial monocultural system. Instability, risks, or uncertainties are inherent features of the natural environment, which the peasant farmers recognize. Traditionally, the peasants try to minimize these environmental risks, combat soil erosion, optimize utilization of the different soil nutrients, and enhance food security by intermixing crops of varying degrees of environmental sensitivity and different nutritional value, and by other forms of agricultural diversification and risk minimization. The resilient, diversified indigenous agriculture, modelled on the forest ecosystem and based on eco-farming principles borne out of the peasants' intimate knowledge of the natural environment, is being replaced by the risk-prone monocultural system, with devastating consequences for the forest ecosystem."

Among the major impacts, the following have been recorded:

- shortages of local staple foods

- the vulnerability of the monocultural palm farms to insect pests and diseases, which have experienced unusually massive and destructive insect invasions

- the difficulty of marketing palm fruit and oil associated with poor marketing facilities for the increased output

- deforestation, and the associated growing cost and scarcity of forest products such as “bush meat“, medicinal plants, and wood, an important constructional material and the basic fuel source

- the high cost, erratic supplies, and polluting effect of the agrochemicals used to boost palm yields and to control pests and weeds, especially in the large plantations

- environmental pollution by the palm fruit and palm oil effluents.

In sum, although large-scale oil palm plantations might appear to be attractive because of their ability to accelerate agricultural production and agro-industrial growth, they are basically vulnerable and have adverse effects on traditional landholding and land-use rights, on food and fuel security, and on the natural environment. (WRM Bulletin Nº 47, June 2001).

Ghana: “Promissory” reforestation plans end up in unemployment

Burdened by a mounting foreign debt and pushed by globalisation and trade liberalisation, Ghana, as many other West African countries, has had its ability to finance domestic public spending severely constrained. In addition most of the exports of African countries suffer decline in prices leading to overall poor returns in revenue and contributing to huge budget deficits. In a desperate bid to service debt and face their deficit, many countries in Africa including Ghana have been relying on the aggressive extraction of primary resources and not only plunder forest resources but also neglect budgeting for sustainable forest management practices.

Timber exports have been a major “commodity”, leading to the depredation of Ghanian forests. Nearly half the country was covered with forests, which included 680 species of trees and several varieties of mahoganies. Most of this wood has been cut. By the early 1990s, only about one-third of the country’s forests remained.

Also, indigenous lands have been massively converted into logging and mining areas as well as into agricultural crops cultivated to meet external needs, mainly under extensive monoculture plantations. In the quest for foreign investments to come in, local people’s land rights have been denied.

After loosing some 70% of the forests, heavy restrictions on logging have been imposed in the country and an afforestation (more precisely reforestation) programme was put in place. However, such endeavour has been developed under the same pattern of supplying primary products to support unsustainable livelihoods elsewhere and also as extensive monoculture plantations. In this case of trees with commercial value generally to feed pulp paper mills. Amazingly enough, these plantations qualify as forests in some circles!

The plantation syndrome is epitomised by perverse incentives being provided by governments. Ghana for example has advocated the setting up of a fund to support the promotion of tree plantation establishment by individuals and companies with appeals being made to poor community land owners to release land for that purpose. The FAO has supported the provision of plantation incentives. The afforestation and reforestation scheme – which implies a narrow variety of species and is being done by the Ghanian Forestry Department and some sawmills – has been promoted as an important "development project" which will provide jobs for an impoverished population.

However, the Ghanian publication Chronicle has recently revealed that about 150 people engaged by Asuowam Complex (AC) Ltd, a timber firm at Wamfie in the Brong Ahafo Region, for a reforestation project at the degraded forest reserve of Pamu-Brekum have been redeployed. Since the project took off in 1998, AC Ltd has been able to plant trees covering about 400 hectares. Out of the total of 150 people engaged by AC Ltd as the labour force for the project only a skeleton staff of 15 are now left to hold the fort. The decision by the management of AC Ltd to terminate the appointment of 135 people stemmed from the fact that the company had run out of funds as a result of lack of logs for its operations. The company first revoked the appointment of its work force at the timber firm and later topped it with those working on the reforestation project.

At the end there is a desert of trees and no work for people. A bad balance, indeed, that deserves more than a second thought. (WRM Bulletin Nº 65, December 2002).

Kenya: Pollution and deforestation caused by Pan African Paper Mills

The large-scale monoculture pulpwood plantation model being implemented in the South not only results in negative social and environmental impacts in the forest areas, but has also additional impacts from pollution resulting from the industrial process for the production of pulp as well as deforestation linked to logging for supplying the pulp mill with raw material.

Such is also the case of Pan African Paper Mills (Panpaper), based in Webuye town, in the Western Province, with a population of some 60,000 people. The mill is situated in an environmentally sensitive area on the bank of River Nzoia, which flows into Lake Victoria. It has been denounced that the factory belches out smoke and sludge, polluting air, water, and nearby rivers. So strong has been the impact provoked by this plant, that the iron sheets within Webuye town are rusted, and people passing through the town, on the Nairobi-Kampala Road, have to lock the windows of their vehicles and close their noses until they are well passed the town.

Problems caused by Panpaper in the region are not new. According to a survey performed in 1994, pollution provoked by this mill is believed to be responsible

for a number of health problems: more than 60% of the children born after 1974 – when the plant began to operate – have had breathing problems from the age of one to five years. Other health problems verified in Webuye are chronic coughing, flu, nervous disorders, diarrhoea, typhoid and migraine, which health officials attribute largely to the air and water pollution produced by the mill.

At the same time, the mill's wood supply needs constitute a powerful incentive to deforest the remaining forests in the region – Kakamega and Mt. Kenya forests in particular – which are being plundered at alarming rates. Pan African Paper Mills is one of the main buyers of the wood extracted from them. At the same time, the company is one of the three firms that have been exempted from the partial logging ban in force in the country. To the official viewpoint, this step was taken because "the government has shares in it and is important to the economy". The record of Panpaper regarding forest conservation is terrible. From 1972 – when the mill was built – to the present day, the whole forest cover of the area – as well as that of Turbo and Mosorit, located 200 km far away – has disappeared.

The argument that this is the price to be paid to achieve "development" is no more acceptable nor accepted. As a result, local dwellers and activists have organized themselves in the Panpaper Anti-Pollution Lobby Group, and have organized a protest to stop such abuses, expressing their concern for the present state of things and their support to the defence of local people's environmental rights. (WRM Bulletin Nº 45, April 2001).

Liberia: Concerns over World Bank's promotion of rubber plantations

The US$ 3.5 million loan that the International Finance Corporation (IFC) of the World Bank Group is about to award to the Liberian Agricultural Company (LAC) to develop a rubber plantation of 120,000 hectares in the Grand Bassa county is provoking growing concern in Liberia. The project is aimed at restarting operations and initiating a rehabilitation program of the plantation, which had been abandoned because of the civil war that affected the country between 1989 and 1997.

The Environmental Impact Assessment (EIA), that will be performed by an IFC team which has arrived to the country is not a guarantee that social and environmental consequences of the project – as well as LAC's negative background in the area – will be taken into account. On the contrary, Liberian environmentalists consider that the decision has already been taken, and that the EIA will become just a formality to appease their claims.

Concerns are based not only on the false promises that LAC has formulated in relation to the development of the area, but also on the project itself. In fact, LAC has on previous occasions failed to live up to expectations of fair wages

for its workers, education for their children, and health and decent housing. After three decades of LAC's presence in the area, schools in the company's estate could operate only thanks to the assistance provided by Catholic Church members, while workers still dwell in over-crowded concentration camp style housing units that are presently almost in ruins. In the meantime, the company's business has thrived.

Several dark points of the project are also worrying. For example, there is no mention that part of the area to be planted is occupied by forests, from which the company will extract timber. The substitution of forests by rubber monocultures in such a big area will certainly generate negative environmental impacts. In spite of this, the project ignores that logging will be a major component of the initiative and this is considered to be a manoeuvre by LAC to avoid a full-scale EIA.

Additionally, the fate of traditional communities situated in the concession area has never been properly addressed. LAC has said that "there is no settlement within the areas identified for new rubber plantations… but there are small numbers of shifting cultivators". This seems to imply that, being few and "shifting" they don't constitute settlements and therefore can be ignored. LAC's promise that there will be no resettlement or displacement of local communities because of economic reasons is not credible. As stated recently by a local environmentalist: "Encircling communities with rubber trees so to leave them with no land for farming and the means to meet their other needs for survival, for us, amounts to one command: move or perish!"

The World Bank is currently performing a review of the implementation of its 1991 Forestry Policy. This is a good opportunity to carry out a review of these types of projects – that the Bank continues to support – and to see if they are really in line with the Bank's mandate of poverty alleviation and sustainable development, or if they are at odds with social justice and environmental sustainability. (WRM Bulletin Nº 32, March 2000).

Nigeria: Malaysian corporation to invest in palm oil production

Malaysia is the world's top producer and exporter of palm oil, generating fifty percent of the global output, of which 85% is exported. Within the African continent, Nigeria is the country having the more extensive oil palm plantations, with at least 350,000 hectares planted to this crop. According to recent news, a Malaysian corporation will begin to invest in Nigeria's palm oil sector, with government support from both countries.

Sime Darby Plantations – the largest oil palm producing company in Malaysia – will soon establish an oil palm processing refinery in Nigeria's Cross River State. This is the result of the five days visit to Cross River State by a delegation from

Malaysia, which was a follow up to that by the state governor to that country some months ago and is at the instance of the prime minister of Malaysia.

The leader of the Malaysian delegation announced the intention to establish an oil palm processing refinery shortly after inspecting oil palm plantations in various parts of Cross River State. He revealed that it was the intention of Sime Darby Plantations to bring some of the new technological know-how in oil palm processing to the state and regretted the state of obsolete equipment in some of the oil estates visited.

He commended the Cross River State government for promoting and providing the enabling environment for business transactions in the state. The delegation visited the Export Processing Zone (EPZ), where its general manager assured the team of free imports and exports. They also visited the Calabar seaport.

So everything seems to be set for this investment. There are however two questions that need to be posed. The first one is related to the Malaysian firm itself: what is Sime Darby's business? According to the company's own web page, it is "Malaysia's largest and oldest conglomerate" and "owns or has interests in more than 270 companies, primarily in Asia. Its core business activities include the distribution of autos (BMW, Ford, Land Rover) and heavy equipment (Caterpillar); the manufacture of finished rubber products (mainly tires); plantations (oil palm, rubber, cocoa, and fruit crops); property development; and trading. Sime Darby is also acquiring generation assets."

In relation with oil palm, the following is revealing: "The company is trusting that the diversity of its holdings will secure growth. While palm oil prices are falling, hurting the plantation business, there is increasing demand for Sime Darby-supplied automobiles and heavy equipment." The Nigerian government should take that into account before subsidising the company with "free imports and exports." If palm oil prices fall, Sime Darby will earn money through its other activities, but what about Nigeria?

The second question is related to oil palm itself. Oil palm plantations are spreading throughout the tropics and in all cases where large scale plantations of this crop are implemented there are reports of important social and environmental impacts. The jobs they generate are few, seasonal, badly paid and in bad working conditions. Local peoples are deprived of their livelihoods and the overall employment tends to decrease at the local level. Impacts on water, soils and biodiversity are widespread and in many cases lead to high deforestation rates. Can this be called development? (WRM Bulletin Nº 41, December 2000).

Nigeria: Palm oil deficit in a traditional palm oil producing country

Oil palm is indigenous to the Nigerian coastal plain, having migrated inland as a staple crop. In the case of Nigeria, oil palm cultivation is part of the way of life

– indeed it is the culture – of millions of people. However, during the past decades the country has become a net importer of palm oil. While in the early 1960s, Nigeria's palm oil production accounted for 43% of the world production, nowadays it only accounts for 7% of total global output.

Contrary to the situation of the oil palm heavyweights Malaysia and Indonesia – whose production is based on large-scale monocultures – in Nigeria 80% of production comes from dispersed smallholders who harvest semi-wild plants and use manual processing techniques. Several million smallholders are spread over an estimated area of 1.65 million hectares in the southern part of Nigeria. Oil palm is inter-cropped with food crops such as cassava, yam and maize.

In an attempt to emulate the "success stories" of the two above mentioned countries, Nigeria tried to implement large-scale plantations, which resulted in complete failures. Such were the cases of the 1960's Cross River State project and of the European Union-funded "Oil palm belt rural development programme" in the 1990's. This project included the plantation of 6,750 hectares of oil palm within an area thought to be one of the largest remnants of tropical rainforest in Nigeria. In spite of local opposition, the project moved forward and EU funding was only discontinued in 1995, seven years after its approval.

The project was implemented by a company called Risonplan Ltd., partly owned by the government. The company appropriated land owned by local communities without their consent and with minimal compensation. Once land had been secured, Risonpalm constructed a huge dyke and bulldozed many thousands of hectares of the project area for cultivation. Local peoples' forests, farms and grave sites were destroyed, fish ponds were poisoned, pesticides banned in Europe were used, and land tenure problems arose. The dyke and drains have considerably altered the hydrology of the area which has already led to the death of trees. The proliferation of roads led to an increase in logging and hunting, and it is expected that all of the area's mature timber trees will be felled in the near future. As revealed in the Commission's own mid-term review, the use of heavy machinery caused compaction of soils. Local peoples conducted strikes and tried to obstruct the project, which consultants to the Commission conceded was the "only effective means to express their discontent".

Other large scale projects have resulted in similar impacts and have also resulted in major failures. The situation thus appears to be at a standpoint, where neither monocultures nor smallholdings seem able to provide answers to the problem of the scarcity of palm oil in one of the countries where the oil palm is native. However – according to experienced local people – the solution to the problem should not be impossible to achieve if adequate policies were put in place and implemented, along with certain guidelines such as:

- Large scale monocultures should not be implemented because they involve soil – and in many places water – mining, they damage ecosystems, undermine human society and they are an inefficient way of producing resources

- Investments should be made in terms of processing capacity and technology. The capacity of traditional presses is very low. The efficiency of these methods is lower than modern mills and oil extraction rates range from 20% to 50% compared with 90% in Malaysia

- The investments however, need to be directed towards the small farmer and farmer co-operatives where oil palm cultivation continues as a manipulation of "wild" groves, as part of mixed farming and as small plantations of one or two hectares

- Production of existing plantations should be maximised – so that new ones are not required – and returned to the original landowners as smallholder blocks that will inevitably be converted into a more mixed and more viable agricultural ecosystem

The above approach is essential for poverty elimination and for the economic empowerment of local people, whilst at the same time serving the country's interests as a whole. (WRM Bulletin Nº 47, June 2001).

South Africa: Nearing one million hectares of FSC certified plantations

South African activists have for years been campaigning against the spread of industrial alien tree plantations. Wally Menne, from the Timberwatch Coalition says that "certification of monoculture timber plantations as 'sustainably managed forests' by the Forest Stewardship Council makes an absolute mockery of the concept of sustainable environment and ecosystem management."

The above statement becomes a dramatic call for action when learning that some 900,000 hectares of monoculture tree plantations – mostly composed of alien species of eucalyptus and pines – have already been given the FSC stamp of approval and that many more will be certified unless something is done to stop it. How can this be possible?

To begin with, it needs to be stressed that the natural vegetation in the areas where these plantations have been established was originally highly bio-diverse grassland or woodland. After conversion to plantations, these areas stand little chance, if any, of being able to revert to the natural climax vegetation type.

But that is only the starting point. As a result of this activity, both people and the environment are subjected to a terrifying range of harmful impacts, among which the following:

* As a first step, the natural vegetation is either bulldozed or killed with herbicides to prevent competition with plantation trees for water, light and nutrients.

* Tree saplings are artificially fertilised to speed up their rate of establishment and other chemicals that absorb moisture are added to the soil to prevent the young plants from drying out.

* Alien invasive plants – including plantation species such as ecualyptus, pines and acacias – become established in neighbouring ecosystems.

* Animals and birds that are disturbed by the plantation establishment activities either flee the area or are hunted and snared as food for the plantation contract workers.

* Surface water in the vicinity of new plantations is soon depleted and people have to turn to the use of boreholes and wells that often are saline or polluted.

* The establishment of timber plantations upsets the natural balance of species. These plantations create barriers that disrupt the normal migration and breeding patterns of birds, animals and insects.

* Local people who would have had access to the area if plantations had not been established, could have used the area to graze their cattle and sheep, harvest thatch grass for roofing their homes, and collect food and medicinal plants for their own limited use. They are now deprived of this resource and are forced to move into previously undisturbed areas in search of these commodities. This often leads to conflict with the management of protected natural areas.

* Contract workers are poorly paid and have little choice but to build makeshift homes within areas of natural forest near the plantation sites where they work, causing substantial ecological damage in the process.

* Community food security is one of the first victims of timber plantations. Areas used traditionally for growing fruit and vegetables become too dry or are shaded out when plantations are established too close to the fertile areas along streams and rivers. The remaining residents are left in a position where they have to use their limited financial resources to buy processed food from trading stores.

* Transport systems, especially roads, are subjected to high levels of usage for which they were not designed. The cost of upgrading or maintaining rural roads is usually borne by the state, which means that the timber industry benefits from an indirect subsidy.

Large-scale timber plantations destroy entire ecosystems and rural economies. For some strange reason this calamity is virtually ignored by governments and research institutions. The onus should be on an organisation like FSC to insist that thorough, impartial research is conducted before certification can be considered.

There is no doubt that a consumer commodity like paper, or pressboard, has great value in modern society. What is not acceptable is that the rate of

consumption of paper products is increasing whilst the living standards of poor communities where the timber is produced do not. The growth of the throwaway culture of so-called developed countries has a direct correlation to the eroding natural environment, and standards of living in the countries that have been colonised by the tree plantations of the multinational corporations concerned. In the case of South Africa, the FSC must take a large share of the responsibility for this social and environmental injustice. (WRM Bulletin Nº 64, November 2002).

South Africa: Tree plantations render corporation profits but fire, damages and death for the people

For the global pulp and paper group Sappi, money does grow on trees. Indeed, the company's latest annual report suggests that it grows most efficiently in South Africa. The report noted that Sappi's southern Africa division, Sappi Forest Products, represented 15% of group sales, but contributed 36% to the group's operating profits in the year to September 2002. "We have an extraordinarily low cost base in South Africa, which has unique competitive advantages in fibre production because of the speed at which trees grow and low inherent energy costs," the report noted.

Sappi is a South African-based international forest products company, and is ranked in the top 20 pulp and paper manufacturers in the world. From a totally South African company in 1989, the company has become an international organisation with manufacturing facilities on three continents being a major producer in its core businesses of coated woodfree paper and dissolving pulp. Sappi Saiccor, in South Africa, is the world's largest and lowest cost producer of dissolving pulp, used in the manufacture of viscose fibre, with a 15% share of the world market.

During 1998 the Sappi group was restructured into a fine paper company and a forest products company, with head offices in London and Johannesburg respectively. The latter owns and manages nearly 540,000 hectares of monoculture tree plantations in South Africa and produces bleached and unbleached paper pulp for own consumption and market pulp.

Sappi's executive chairman Eugene van As noted that following the September 11, 2001 attacks, consumption of coated paper, much of which is used in producing glossy magazines, fell 12%, "the sharpest decline most participants can recall". However, despite losing money in the US, Sappi came through the year with reasonable earnings. He highlighted the benefits of the geographical diversity of the company, which has plants in North America, Europe and South Africa.

That's good news for the corporation. But what about South Africa and its people? The company boasts of the "excellent operating efficiencies" in the region, but that may be just a way of how profits and liabilities are settled. It's not the

company who bear the environmental and human costs of its activities – externalities, they call it. It will not pay for the diminishing or contaminated water, the shrinking forests, the lost ecosystems. It will not pay for the poverty of the people deprived of their livelihood and now depending on meagre salaries that allow for those "excellent operating efficiencies".

According to a report from the South African environmental organisation Timber Watch, typical forests in this country are restricted to frost-free areas with mean annual rainfall of more than 525 mm in the winter rainfall region and more than 725 mm rainfall in the summer rainfall region. They occur from sea level to over 2 100 m above sea level. They rarely burn, mainly thanks to the humidity "bubble" that is trapped within the canopy, and the dense greenery of shrubs and small trees that make up the eco-tone or margin. Under extremely hot and dry (berg wind) conditions fires may occur and destroy the forest structure, but this usually occurs where the ecotone has been damaged, often as a result of timber plantations being too close to the forest margin which together with industrial crops such as sugar cane, have expanded into natural areas, thus increasing the pressure.

The most damaging impacts of plantations on forests are ground water depletion (SAWAC, South African Water Crisis, can bear witness to that), and displacement of human communities from farmlands. These lead to a wide range of secondary impacts such as overexploitation of forest products including mammals and birds, slash and burn clearing for subsistence agriculture, and increased exposure to alien plant infestations and fire.

Precisely, in July 2002, serious wildfires hit Mpumalanga Province, with several damages including death toll and injured people. Although prescribed, burns run out of control. Explanations pointed to dry and very windy conditions, the El Nino phenomena and sudden weather changes. However, it's worth noting that Sappi has established in Mpumalanga 245,000 hectares of pulpwood and sawlogs plantations as well as a pulp and paper mill which encouraged forestry. Some coincidence? (WRM Bulletin Nº 67, February 2003).

South Africa: Timber industry and not medicinal plant gatherers behind forest loss

Recently, an article on the major "threat" posed to South African indigenous forests by illegal gatherers of medicinal plants has been widely disseminated. Michael Peter, Director of Indigenous Forestry Management of the South African Department of Water Affairs and Forestry, said that "The medicinal plant trade is the single largest cause of indigenous forest degradation in South Africa".

However, Wally Menne, from the South African NGO Timberwatch Coalition, has something to say about this. He stresses that "it's time to open our eyes

and face the reality that the timber industry is really the biggest culprit when it comes to damaging forests".

According to data compiled by Timberwatch, native forests are estimated to cover less than 0.25% of southern Africa's surface area, making this the smallest biome on the subcontinent. These forests, which tend to occur in belts made up of patches – such as in the Drakensberg, or in contiguous strips such as along the Southern Cape coast and the coastal dunes of Kwa Zulu/ Natal – have suffered a substantial decrease as a result of human activities including agriculture and grazing. The pressure has increased as a result of the expansion of timber plantations and industrial crops – such as sugar cane – into natural areas which in turn has displaced local people. Thus, the process has indirect or off-site impacts on forest, since the people tend to go further inside the forest in order to make a living.

According to Wally Menne: "Putting the blame on nameless 'commercial gatherers' is rather weak when you consider that plantation roads have provided access to forests for underpaid contract workers who are hardly likely to pass up an opportunity to make a bit of money from gathering medicinal plants. Usually they are from outside the area (often even outside the country) and are too poor to care about the consequences of their actions. The full-time 'commercial gatherers' who usually just transport the plant material, often employ people like these to do their dirty work. The contract labour system used by the likes of Mondi and SAPPI [the two largest tree plantation companies in the country] needs to be put on trial to see what the real problem is." (WRM Bulletin Nº 69, April 2003).

Tanzania: Another case of Norwegian CO2lonialism

A project implemented in Uganda by Norwegian company Tree Farms to set up between 80,000 and 100,000 hectares of plantations of pines and eucalyptus to act as carbon sinks has been severely questioned because of its negative social and environmental consequences. It has been defined as a "loss-loss-loss" situation, where the profits for the company are doubtful, local peasant communities are losing their lands and working for miser salaries, and Uganda is losing its sovereignity in relation to the management of its territory and natural resources.

In a report published in July 2000, a project also managed by Tree Farms – this time in neighbouring Tanzania – is analyzed ("Carbon Upsets. Norwegian 'Carbon Plantations' in Tanzania" by Jorn Stave, NorWatch). So far Escarpment Forestry Company Ltd., subsidiary of Tree Farms, has planted 1,900 hectares of *Pinus patula* and *Eucalyptus saligna* at Sao Hill, Mufindi and Kilombero districts in the Tanzanian highlands. The company is in the process of acquiring larger areas.

Additionally it is funding th e activities of TAGGAT (Tanzania Greenhouse Gas Action Trust), a foundation that is working with the company in the development of simulation models for carbon fixation in tree biomass.

Even though this project differs in several aspects to that implemented by the same company in Uganda, the research concludes that this is another case of "CO2lonialism" provoking negative impacts on the environment, local communities and Tanzania as a country. Local biodiversity – including two orchids and one Aloe species endangered – will be affected by tree monocultures. At the same time, the fate of carbon content of soils and roots of natural vegetation once plantations are set up is uncertain. Even though Tree Farms made consultations with local villagers before works began, it has used local work force for plantations hiring them by a salary well below the official recommended minimum wage. Moreover, there are still more than 100 workers with several months of pay outstanding. The sum the company is paying as annual rent to the Tanzanian government for land use (U$S 1.9 per hectare) is lower than the rent at Tree Farm's project in Uganda. Nevertheless, the Norwegians are pushing the authorities in order to reduce the rent by as mush as 50%. At the same time, Tanzania will lose control of the leased land during a period of 99 years.

The activities of Tree Farms in Tanzania can be considered as even worse than those in Uganda, since in this case the company is expected to make huge profits taking advantage of the very low negotiation power of local communities and the scarce institutional development of the Tanzanian state. Since the "carbon market" implies an absurd trade between agents with very different power, it is not surprising that the more powerful and richer gain while the more feeble and poorer loose. Definitely carbon sinks are not a solution for climate change, but an additional problem, both at the global and the local levels. (WRM Bulletin Nº 38, September 2000).

Uganda: Carbon sinks and Norwegian CO2lonialism

Forestry companies worldwide are enthusiastically trying to implement the idea of establishing tree plantations in Southern countries under the Clean Development Mechanisms of the Kyoto Protocol, signed in 1997, allegedly as a way of sequestering CO2 from the atmosphere to mitigate the effects of global warming ... and of making good profits at the same time. Even if presented as "environmentally friendly", the whole idea of plantations as carbon sinks is based on weak scientific arguments and does not constitute an effective way of reducing CO2 concentrations in the air. Additionally, it enhances the detrimental effects of the hegemonic tree monoculture scheme at the local and regional levels.

Norway has also got on the bandwagon and has set its sights on Uganda. The Norwegian company Tree Farms established itself there in 1996, and has one afforestation project in progress. Additionally, the Norwegian Afforestation Group

got the authorities' agreement on a project in November 1999. The former – which operates in the Bukaleba Reserve area under its subsidiary's name Busoga Forestry Company Ltd. – has already started a project to set up between 80,000 and 100,000 hectares of plantations of pines (*P. caribaea*, *P. oocarpa* and *P. tecunumani*) and eucalyptus (*E. grandis*). Such scheme is very similar to that adopted by the Dutch foundation FACE in the Ecuadorian and so are its consequences.

A recent research in the field performed by the Norwegian NGO NorWatch shows that both projects – and particularly the one of Tree Farms – have some very questionable aspects: both Norwegian companies have leased their land from the authorities for a bargain price, since on the one hand Ugandan authorities have virtually no capacity to assess what value the companies plan to generate, particularly through carbon trading, and on the other hand, corruption is present at the decision making level.

The Tree Farms project has provoked the eviction of some 8,000 people from 13 villages – mainly farmers and fisherfolk – from their lands, that the company is now occupying, condemning them to poverty due to the loss of their livelihoods, and creating a source of social and environmental conflicts. Moreover, under the "taungya" system, local dwellers are allowed to grow maize, beans, and other vegetables between the rows of planted trees during the first few years, but, surprising as it may seem, they have to pay for this land use and, additionally, they are being exploited by the company since their weeding and managing of trees during these first years is not paid.

By leasing out areas for "carbon plantations" during periods of 50 years, the country is giving away the option of changing land use in the future. The so called carbon-storing plantations have to remain as such for the foreseeable future, depriving the country's authorities of the choice of using the areas for other purposes in the peoples' interest. Additionally, Uganda will not be allowed to use these carbon sinks for its own carbon accounts when the country itself faces commitments, because the credits will already have been sold to Northern countries and companies in the rich countries.

As is usually happening, the carbon account in the Tree Farms' project is uncertain, since there is no way of establishing the net amount of CO2 that could be removed and stored by tree plantations during long periods. It is even possible that they become carbon sources instead of sinks. Additionally, plantations face risks posed by fires, political unrest, and upheavals, which are factors that make it hard to guarantee that the activities will be allowed to continue without obstacles. Not to mention the impact of tree monocultures on soils, water and biodiversity, including the ability of the understorey and surrounding vegetation to remove and store CO2.

It is unclear whether the Tree Farms project will survive, because of social conflicts and problems with profitability. A recent EU-financed study, covering among others the mentioned Tree Farms project, concluded that there would be a "loss-loss" situation both for forestry and the local people. "NorWatch has got the view that the Tree Farms project is really a "loss-loss-loss" situation: forestry is ailing, local people are suffering, and Uganda is being "CO2lonized".

In relation to the Climate Change Convention process, the Conference of the Parties will discuss – when it meets in The Hague next November – whether carbon trading based on tree plantations in Southern countries should be approved as an option to emissions reduction. In the meantime Norway, that in 1997 made the commitment that its greenhouse gas emissions for the period 2008-2012 would decrease, has actually increased them. Norwegian authorities predict that this growth will continue until 2010. For Norway, planting trees in a Southern country such as Uganda is cheaper than implementing technologies that would lead to a decrease in its own emissions. Local Ugandan poor and the global environment will pay for the costs. (WRM Bulletin Nº 35, June 2000).

Zambia: Good or bad news on forestry?

Zambia has almost 46 million hectares of forests, of which 7.4 million hectares are reserves, 6.3 million hectares national parks and 32 million hectares are woodlands. It has an estimated area of tree plantations of some 63,000 hectares. It is within that context that the following recent news needs to be analysed.

The news is that the Zambian government is exploring the possibility of getting US$30 million to revamp the timber industry which, according to Public relations officer in the ministry of Commerce, Trade and Industry Conrad Simuchile, has been abandoned for a long time.

The money would be given out in form of loans to the business sector involved in the timber industry in order to support the introduction and establishment of plantations and processing plants. The alleged aim is to involve entrepreneurs in the business of processing finished products instead of exporting raw timber – which later cames back to Zambia as finished products – thus creating employment for Zambians in the industrial sector.

To stop exporting raw logs and add value to the timber through the manufacturing of finished goods sounds very reasonable, particularly in a country where rural people have suffered the effects of the removal of agricultural subsidies in the 1990's, thus pushing them to carry out other activities such as clearing woodlands to supply charcoal to the urban market in order to make a living.

However, there remain a lot of question marks. For example, how is it that the timber industry has declined even when it is a profitable business in a country plentiful of forest resources? The Minister of Tourism and Natural Resources

Levison Mumba has himself acknowledged that the industry did not contribute to the country's gross domestic product because of lack of transparency by the stakeholders involved. So, who will decide who will receive the money and what controls are going to be put in place to ensure that it results in job generation and sustainable forest management?

As for the promotion of tree plantations, there are also a number of questions to be raised. Plantations are not bad in themselves. It all depends on what species will be planted, where, on what scale, how (including the prior informed consent of local peoples) and who will benefit from that and downstream industrial activities.

It would seem however, that it doesn't make much sense for a country endowed with rich forest resources to promote timber plantations instead of focusing on the wise use of forests. The available information doesn't say what the government means by "plantations." However, what is relatively clear is they would be aimed at providing the timber industry with raw material ("to help entrepreneurs introduce and set up plantations and processing plants in a bid to revamp the timber industry"). If that is the case, then it is very plausible that plantations will be focused on fast growing alien species similar to the ones being promoted throughout the tropics and subtropics: eucalyptus, pines, acacias, gmelina. In that case, all the available experience shows that it would be a big mistake.

Of course that it would make much sense to plant native species in areas of degraded forest, if and where local communities support the idea and if they were to benefit from forest restoration. Support and funding for this would be certainly very much welcomed. However, the money that the government is seeking would be given out in the form of loans to the business sector involved in the timber industry. The same sector accused of "lack of transparency" by the minister.

In sum, it is yet too early to conclude whether this recent news is good or bad, although everything seems to point out at the latter. We hope to be proven wrong. (WRM Bulletin Nº 68, March 2003).

THE AMERICAS

Latin American Network Against Tree Monocultures is born

In the framework of the World Social Forum (Porto Alegre, Brazil), representatives of Latin American NGOs got together to discuss the possibility of coordinating efforts with respect to the growing problem of tree monocultures.

During this meeting, the factors promoting territorial occupation by monocultures aimed at timber, cellulose fibre and palm oil production were analysed, together with factors limiting this occupation.

The increasing support for these monocultures given by the governments of the region was emphasised, many of which have approved legislation explicitly aimed at their promotion through granting all kinds of subsidies to this activity. In turn, such support is the result of initiatives arising from bilateral and multilateral agencies that prepare the way for the investment of transnational companies interested in this business.

Additionally, the area devoted to large-scale tree monoculture may be vastly increased because of the implementation of the so-called Clean Development Mechanism included in the Kyoto Protocol of the Climate Change Convention, making it possible for contaminating industrialised countries to "compensate" their release of greenhouse gases through the plantation of large areas of trees as "carbon sinks." Latin America appears to be one of the favourite destinations for such projects.

Summing up, the Latin American scenario is ready to receive, with the blessing of the governments, investment aimed at increasing the area covered by tree monocultures, both for production (timber, cellulose and palm oil) and to act as carbon sinks (dumps).

However, the participants in the meeting also analysed the people's growing opposition to this forestry model and the level of knowledge and experience gathered on the issue, which makes it increasingly difficult to convince the population of the region that these plantations will be of benefit to them. On the contrary, the experience in regions where this model has been implemented has proved to have disastrous consequences, both for the people (loss of territories, resources and jobs) and the environment (impacts on water, soil, biodiversity and on the landscape).

It was therefore considered essential to organise and coordinate action against tree monocultures on a continental level, in order to prevent their further expansion. In this respect, the representatives of NGOs from Argentina, Brazil, Colombia, Costa Rica, Ecuador, Paraguay and Uruguay (and subsequently El Salvador) agreed to set up the Latin American Network against Tree Monocultures, delegating its Secretariat functions to the World Rainforest Movement. (WRM Bulletin Nº 67, February 2003).

Argentina: Oil companies try to "green" their image

Following an existing trend at the global level, oil companies in Argentina have enthusiastically embraced the idea of entering the carbon permits market, as an effective way to increase their profits and revamp their image to the eyes of public opinion: from the bad guys responsible for global warming to champions of forest conservation! Since 1998, the government has been making things easier for them by favouring investments in plantation projects, disregarding

their impacts on the valuable grassland ecosystems that have been the natural and physical support of the country's economy.

According to Patricio Montecino, general manager of Pecom Forestal (a subsidiary of oil company Pérez Companc), "nowadays it is difficult to think of an oil company without an additional forestry component" both because – according to him – forestry is a good business, and because such companies are now conscious of the need to work on solutions based on carbon sequestration. Pecom is negotiating carbon emissions permits with the German companies that are involved in the polemic Chubut-Prima Klima agreement to sequester carbon in southern Chubut Province.

For Pérez Companc Company, carbon sinks are nowadays a core business. The company started to work in the forestry sector in the 1950s and at present owns 163,000 hectares of land in the provinces of Misiones and Corrientes and in the Paraná Delta region, much of which will be planted with trees. 15,000 additional hectares of pine plantations are to be set up in the next seven years in Misiones. The company's holdings in Corrientes are being planted to *Pinus taeda* and *Pinus elliottii* at a rate of 6,000 hectares per year, with the aim of obtaining raw material to feed an industry to be installed in the area in the near future.

Giant oil producer YPF (formerly State owned, now privatized and associated with Repsol of Spain) is supervising the plantation of 2,000 hectares with *Pinus ponderosa* in southern Neuquén Province by the Corporación Forestal Neuquina (CORFONE) and planning to reach 5,000 hectares by the year 2002. Of course Shell cannot be absent in this kind of initiatives: It owns 200,000 hectares in several countries (Congo, New Zealand, Chile, Uruguay, Argentina, Paraguay), being 120,000 hectares occupied by fast-growing trees plantations. In Argentina, Shell began to operate in 1998 and its plantations are located in Buenos Aires Province, where it owns 24,200 hectares, and in Corrientes Province, occupying an area of 8,000 hectares with eucalyptus and pines, to be extended to 18,000 hectares.

To create a "green image" for themselves is a very important goal of these companies' policy. Repsol-YPF boasts that its project is taking place in areas affected by erosion produced by overgrazing, and that they are not occupied by native forests, thus pretending to show its concern for environmental protection, in general, and for the reclamation of degradaded soils in particular. Shell emphasises that 2,000 hectares of native forests in its afforestation area will be left intact, and that the company aims to obtain certification according to the ISO 14001 norm so that the product can reach Northern markets. Nevertheless, such arguments are weak regarding a true conservation policy, since on the one hand it is well known that tree monocultures do not contribute to soil reclamation, and on the other hand, the effectiveness of small patches of native

forest to conserve biodiversity in the midst of vast tree monocultures is very doubtful. Not to mention the poor performance of these companies (see article on Bolivia in this issue, and WRM Bulletins 1, 8 and 21) regarding environmental protection. Not to mention that the real business of these companies – oil extraction – is devastating both the local and global environment. And not to mention that while "greening" their image they are increasingly appropriating vast areas of land throughout the world. (WRM Bulletin Nº 35, June 2000).

Argentina: Forest loss and plantations in two provinces

Coinciding with the conquest of the vast territory of Argentina by the Buenos Aires centralized government, started in the second half of the 19th century in the name of modernization, forests in different regions of the country entered a period of decline which has continued until present times. The two cases mentioned below are only examples of a process happening throughout the country.

In the Province of Santa Fé, forest cover decreased in nearly 4.6 million hectares over the last 80 years. According to a report recently issued by the Secretary of Natural Resources and Sustainable Development, the total forest area of the province now reaches only 1.3 million hectares. In 1915, the Santa Fé Forest Census revealed the existence of 5.9 million hectares of forests. Between 1915 and 1970 the deforestation rate was of 52,700 hectares a year, but it jumped to 121,500 hectares per year between 1970 and 1984. Two forestry companies were directly responsible for this state of affairs. One was the British "La Forestal", which began to operate in the region in 1880 owning nearly one third of the Province's area to exploit "quebracho" (*Schinopsis balansae*) forests. It employed local people, who had to work in near slavery conditions. In the decade of 1960, when quebracho forests declined, the company closed business and left a desert behind, both in ecological and social terms. In the decade of 1930 "Celulosa Argentina" arrived to the region. To feed its pulp and paper mills this company both exploited native forests and set up eucalyptus plantations.

The Province of Misiones is also undergoing a severe process of forest loss and substitution by plantations. At the beginning of the 20th century 90% of its area was covered by a dense subtropical forest. Nowadays there are only 1,500,000 hectares left, only one third of which is included in natural protected areas. Deforestation continues unabated. One foreign pulp and paper company alone is expected to deforest 7,000 hectares per year and no steps have been programmed to stop this destructive process. At the same time, Misiones is increasingly being covered by large-scale fast-growing pine tree plantations, and pines are invading even the few protected forests in the province.

As usual, forest loss in these two provinces has gone hand in hand with the spread of plantations. However, most foresters – supported by the FAO definition

of forests – will say that in both provinces "forest cover" has increased, simply by adding the plantation area as part of that "forest cover." Fortunately, the public is becoming increasingly aware that eucalyptus and pine monocultures are not "forests" and that in fact plantations constitute a major cause of deforestation. (WRM Bulletin Nº 38, September 2000).

Argentina: A shady carbon sink project

While government representatives were discussing at the Hague the supposed benefits of including forests and plantations in the so-called Clean Development Mechanism of the Kyoto Protocol of the Climate Change Convention, an unusual project in Argentina was giving reason to those opposing such inclusion.

In February 2000 the company "El Foyel S.A.", the new owner of a plot of 7,800 hectares located in El Foyel, in the southern Province of Río Negro, addressed the Andean Forest Service (SFA) to apply for an authorization to open up and rehabilitate several kilometres of roads within a forest in the region, and to cut 300 hectareas of this valuable ecosystem in order to substitute it with oregon and radiata pine plantations. This forest borders the Nahuel Huapí National Park, close to the touristic city of Bariloche.

Three months later, even lacking the required authorization, the company began the logging operations. The SFA reacted accusing it of "blatant infringement of the law", causing the destruction of one hundred cypress trees, as well as "ñire" (*Nothofagus antartica*), "maitén" (*Maytenus boaria*) and other native tree species. Nevertheless, this episode is but the tip of the iceberg of a much more shady situation. In fact, the project implies the destruction, not of 300 but of 4,500 hectares of forests and their substitution by pines.

To present the undertaking under a "green" mask, the proponents claim that the project includes the "sustainable management" of 1,800 hectares of native forest, including species such as "lenga" (*Nothofagus punilis*) and cypress. However, its main objective is to make profits from both wood extraction and the sale of carbon credits.

The strong links of the involved businessmen with local authorities have made it possible that, despite the project's characteristics, the Provincial Office for the environment approved the Environmental Impact Study. The final decision on the project is now in the hands of the Forestry Department. For the time being, the project has been suspended as a result of the sanctions it received for having started the opening of roads without due permission.

Local villagers, academics and experts have expressed their opposition to the project. The NGO "Comunidad de Limay" is involved in a campaign to stop it, and has gone to court arguing that a process of public consultation has not taken place and that the project breaches the law, which protects native forests.

Additionally Dr. Thomas Kitzberger and Dr. Estela Raffaele, of the National University of Comahue, warned that the project is located close to a national park, in an area where the North Patagonian Corridor is projected – aimed at protecting the mobility of species and thus to protect biodiversity. Their report also questions the "sustainable development" management techniques proposed to manage the 1,800 hectares of forest which will not be cut down. The Andean Forestry Service has underscored that the felling of ñire can adversely affect other native species – such as cypress – which grow associated to it. Concern over the aggressive way oregon pine regenerates – leading eventually to the substitution of native species – has also been expressed. Other scientists from the National University of Comahue point out that there is no evidence that pine plantations are more efficient than forests concerning carbon dioxide absorption.

On November 5th the protest gained the streets, when environmentalist NGOs of Chubut and Río Negro organized a demonstration "in favour of the biodiversity of the Southern forests of the Planet". Proyecto Lemu, the Chubut Antinuclear Movement, Mapuche and Tehuelche indigenous groups, Greenpeace-Argentina, Puelo Bird Society, Atech and Cetera participated in the mobilization.

Even though Argentina is commonly associated with vast prairies, it is also true that at the beginning of the 20th century the country had more than 100 million hectares of forests. Nowadays there are less than 20 million hectares left, and half of them are suffering an accelerated process of degradation. The expansion of pine and eucalyptus monocultures poses a direct threat to these surviving ecosystems, and the case of El Foyel is but one in a long list of forest destruction.

The same as in other projects implemented in several countries, this "carbon sink" project clearly shows that such an approach is not the solution to global climate – since more carbon is released to the atmosphere through deforestation than that absorbed by tree planting – and that it causes severe social and environmental impacts at the local level. Nonetheless, they are big business for a few businessmen, for whom the tragedy of climate change is but a new and excellent opportunity for making money. (WRM Bulletin Nº 40, November 2000).

Argentina: The "forests of silence" or the pine plantations at the Yungas

The phyto-geographical region of the Yungas, or cloud forest, is a humid forest occurring in mountainous sectors linked to the cordillera of the Andes. It extends in a discontinuous way from Venezuela, through Ecuador, crossing Peru and Bolivia and reaching the north east of Argentina where its extreme remnants are to be observed in the provinces of Salta, Jujuy, Tucumán and Catamarca. In general, conservation of this zone comes under the National Park system: Baritú and el Rey in the province of Salta, Calilegua in the province of Jujuy and Campo Los Alisos in the Province of Tucumán. The Yungas is one of the environments containing the highest biodiversity in Argentina, and also one of

the most threatened ecosystems in the world, mainly because of rapid fragmentation or destruction.

At an altitude ranging from 300 m to over 4000 metres, the Yungas may be divided into four zones of altitudinal strata: the Pedemontana Forest (foothills forest), which is transitional and of a subtropical nature, hosting 30% of all the biodiversity of this valuable ecosystem; Montane Jungle, Montane Forest, or Alder Forest (these two zones have been considerably devastated by the selective logging of their native timber species) and High Grasslands or Montane Range lands, relatively well conserved due to the difficulty in accessing them.

It is estimated that 67% of the original area of Argentine foothills forest has disappeared and the rest has been modified. Agricultural activities accompanying urban concentrations in this zone until the beginning of the twentieth century, which started replacing the forest, were characterised by the diversity of their production – mate tea, tea, cherymoya fruit, mango and coffee – to supply local needs. However, as from the first decade of the twentieth century, with the inauguration of the railway line and the establishment of the tobacco and sugar industry – such as the Ledesma Industry in Jujuy – a change took place in the model and the country entered a scale economy with marketing and industrial characteristics. Vast sectors of the foothills forest were replaced by large-scale monoculture plantations (sugar cane, banana, citrus) aimed at export. This process implied the concentration of land in the hands of powerful economic groups, in some cases multinational, in others national and provincial capital, set up as corporations or under the domain of families representing north-east Argentine agro-industrial capital (industries, sawmills, fruit and vegetable farmers). This appropriation was made to the detriment of the local population, causing social exclusion, rural migration and unemployment and disregarded the rights of the native communities, such as the Kollas, who had inhabited the area for centuries and carried out a leading role in defence of the Yungas.

Over the past few years, the alteration of the Yungas has become more serious because of a new factor of destruction: the large scale monoculture tree plantations, centred on exotic fast-growing species (pine, eucalyptus, *Grevillea robusta*, *Melia azedarach*). This type of plantation has been promoted and financed by multilateral institutions, such as the World Bank, mainly to supply the powerful pulp and paper industry and to satisfy unrestrained consumption demanded by packaging of goods within the present globalisation of markets model. Lately, monoculture tree plantation has been presented as the “solution” to climate change as they are supposed to act as carbon sinks. For this reason, native forests are being clearcut!

Jorge Baldo, a Biologist, Master in Vertebrates, Francisco Cornell, a Tourism Technician and Freddy Burgos, a Gamekeeper are linked by their passion for

birds and the conviction that if something is not done to protect them, soon none will be left. The three of them live in the Los Perales neighbourhood in the Argentine city of San Salvador de Jujuy, an enclave of the beautiful Montane forest landscape, at between 1200 and 1500 metres. So far they have identified 240 species of birds, some of which are endemic to the Yungas region, such as *Grallaria albigula*, other are visitors from the Northern Hemisphere, such as *Hirundo rustica, Riparia riparia, Elanoides fortificatus, Ictinia mississipensis, Vireo olivaceus*. They are also witnesses of the threats and have reported the results of a census, showing 189 species of birds in a forest, while there were only 23 in a pine plantation covering the same area.

There is no room for biodiversity in these plantations. They are "green deserts" that have lost ecosystem multi-functionality, and the neighbours have perceived this situation, baptising them "the forests of silence." How long will silence continue to be imposed on peoples and forests? . (WRM Bulletin Nº 66, January 2003).

Brazil: The marriage of Stora Enso and Aracruz

News about the association of Stora Enso with Aracruz Celulose is certainly bad news for local people in the Brazilian states of Bahia and Espirito Santo, dominated by three major pulp corporations: Veracel, Aracruz and Bahia Sul. Veracel will now be jointly owned by Stora Enso and Aracruz (with 10% of the remaining shares in the hands of Brazilian group Odebretch). These three companies own more than 300,000 hectares of fast-growing eucalyptus monocultures, which are having strong negative impacts on water, soils and biodiversity which also impact negatively on local peoples' livelihoods. At the same time, plantation development has not only not provided the badly needed jobs but, on the contrary, has resulted in net employment losses in the region.

The increasing impacts of plantations have led to the creation of a broad coalition of NGOs, indigenous peoples, peasants, fisherfolk, academics and many others, and the name they chose for the coalition clearly shows the problem they are facing: the "Movement against the Green Desert in Espirito Santo and Bahia".

During the past year, the coalition successfully halted a move by Aracruz to have its plantations in the state of Bahia certified by the Forest Stewardship Council. However, the company is so powerful in the state of Espirito Santo, that it is apparently being successful in getting approval for another expansion (700,000 tonnes) of its already enormous pulp production capacity and the consequent environmental impacts it will entail.

However, both Aracruz and Veracel were facing problem. To provide raw material to its new pulp mill, Aracruz needs some 70,000 hectares of additional plantations. At present the company is making a tremendous lobbying effort to have those lands bought in the extreme south of Bahia. However, the Bahia

Environmental State Agency decided that an Environmental Impact Report would be required before further eucalyptus plantations are approved. This study can take a long time and can cause difficulties to Aracruz's operations.

Veracel has a different problem: what to do with its eucalyptus plantations. The company has been struggling to have its own pulp mill built, but it still lacks interested investors in the US$ 1.6 billion dollar investment. According to Stora Enso, "implementation of the Veracel pulp mill will be postponed ... and the decision to build the Veracel pulp mill will be taken in the end of 2002, subject to international pulp market conditions." The delay in construction has diminished local support for the company, since the argument used of 'generating employment' has not become a reality.

The marriage of these two companies seems to solve the most pressing problems: Aracruz won't have to bother about raw material for its new pulp mill – which will be provided by Veracel's plantations – and Stora Enso will be able to sell its wood to Aracruz without having to bother about if and when it will build its own pulp plant in Bahia.

For people and the environment, this marriage is very bad news, because it means that the political clout of both Aracruz and Veracel will increase even further, thereby making opposition to large-scale tree plantations and pulp operations even more difficult. Unless such "development" is halted, it will increase the already serious social and environmental impacts related to large-scale fast-growing tree monocrops and to pollution problems resulting from increased bleached eucalyptus pulp production. (WRM Bulletin Nº 36, July 2000).

Brazil: The short memory of Veracel and the power of Aracruz

In response to the information published by Taiga Rescue Network in Taiga News Summer 2000 edition, issue 32, regarding the social and environmental impacts of Veracel's eucalyptus plantations in the state of Bahia, Antonio Alberto Prado – Public Affairs Manager of the company – addressed the publishers to explain them that "...since its inception, in 1991, Veracel's land management and plantation development has been based on sustainable, ecologically sound principles". According to him, when Veracel arrived in the region the native Atlantic Forest ("mata atlantica") had mostly disappeared. "The areas used for planting", he states, "are those that have already suffered irreversible interference from man, being mainly pastures and degraded areas." He adds that Veracel is undertaking a conservation programme for the native forests remnants and that "the resultant landscape is typified by the forest mosaic of eucalyptus on plateaus with native forests in the intersecting valleys." He also adds that the presence of Veracel was "welcomed by the local population as a unique

opportunity to preserve and restore the native forest while providing jobs for a population with roots in forest operations."

To say the least, Mr Prado seems to have an extremely short memory. Fortunately, the "welcomed" arrival of his company was well documented by the Brazilian NGOs FASE, IBASE and CDDH-Teixeira de Freitas, which carried out extensive research from 1992 to 1996 on the impacts of the expansion of eucalyptus monocultures in northern Espirito Santo and southern Bahia.

In 1992 the company arrived to southern Bahia under the name of VeraCruz Florestal, with the aim of setting up eucalyptus plantations and a pulp mill. One year later a group of Brazilian environmental and social NGOs together with SINTREXBEM – the union of forestry workers – denounced that the company was devastating the mata atlantica forest, one of the most biodiverse ecosystems in the world, and filed a suit against the company. In February 1993 VeraCruz Florestal had its operations temporarily suspended by the Ministry of the Environment and the Brazilian Justice for breaching the environmental law for the protection of the mata atlantica. All this is very well documented in a number of publications which Mr Prado should have read before responding to Taiga News and among which we recommend him the "Dossier Veracruz", published in 1993.

However, Mr Prado appears to know nothing about that and prefers to underscore the fact that "Veracel also owns and protects a reserve of over 6,000 hectares of primary forest." However, this area was simply there when the company arrived and the only thing that the company can be "proud and honored" about – as his letter says – is that in that specific case the company did not violate the law! But Mr Prado also seems to forget that at the same time the company was destroying vast areas of mata atlantica forest to set up its plantations a few kilometres from that place. Additionally the presence of remnant forest in the "intersecting valleys" is much more connected to technical difficulties in entering with machinery to plant those areas than to environmental considerations.

Social impacts of Veracel in the region have also been negative. Like other big forestry companies operating in the region – Aracruz Celulose and Bahia Sul Celulose – the company occupied vast areas of land for its plantations. Thus more and more small and medium rural landowners were deprived of their lands, progressively invaded by plantations, while other economic alternatives disappeared. Only at the beginning of its operations the company received the support from local people, who saw it as possible job creator. But this support quickly disappeared, since the number of jobs created was smaller than promised, while the overall number of employment opportunities actually decreased in the region.

Mr Prado's letter shows that Veracel – whose major shareholders are now Stora Enso and Aracruz Celulose – is quickly learning from its new partner Aracruz

on how to disguise its impacts under a green discourse. But words cannot hide the facts for very long.

However, these companies don't use only words. They also use their power. Aracruz Celulose – with extensive eucalyptus plantations in the neighbouring state of Espirito Santo – is now aiming at getting approval for a further expansion of its plantations in southern Bahia. Aracruz is famous for its long conflict with the Tupinikim and Guarani indigenous peoples in Espirito Santo, legitimate owners of the land that the company is occupying with vast eucalyptus plantations to feed its pulp mill. The company has requested the fast approval of the Environmental Impact Assessment for a further 45,000 hectares of eucalyptus plantations in southern Bahia. Environmental NGOs have denounced that the process is completely biased in favour of Aracruz, which is using its influence to get the EIA approved. Aracruz has also strong links with the Governor of Bahia, who sees plantations with good eyes. Unless local organizations manage to influence the process, the EIA will probably become a mere formality and the states of Bahia and Espirito Santo will increasingly become – in the words of a Tupinikim indigenous leader – a sea of "dead forests that kill everything." (WRM Bulletin Nº 39, October 2000).

Brazil: The option between family-based agriculture and giant Aracruz Celulose

In the Brazilian state of Espirito Santo there are currently two different production sectors facing completely different situations.

The first one, which includes the plantation of eucalyptus and the production of cellulose is controlled by the multinational Aracruz Celulose. This sector, with support from the National Bank of Social and Economic Development, is in a position to invest more than 1 billion dollars until the year 2002 for the construction of its third pulp mill and for the extension of the eucalyptus plantations to guarantee the supply of raw material to its mills. At present, the company owns 138,000 hectares of eucalyptus plantations in the States of Espirito Santo and Bahia and needs to add some 72,000 hectares more in order to be able to increase its annual production of cellulose to 2 million tonnes.

The second productive sector is family-based agriculture, which produces mainly coffee. This sector, composed by families native to the state of Espirito Santo, is living a crisis situation and is not receiving financial support from the government to invest in agricultural activities. The low price of coffee has driven many farmers to despair. Those who in the past succeeded in getting loans are now facing serious problems for their repayment. It is worth emphasizing that only a minority of these families have had access to credit.

We are thus now perceiving a clear and shocking contrast between two sectors which are facing two totally different situations. While Aracruz directly employs

only 1,689 workers and is the owner of the largest landholdings of the state, the family-based agriculture sector includes some 70,000 families, most of which at the most possess some ten hectares of land.

In this situation, we, organizations of the Forum Alert Against the Green Desert, firstly wish to express here our support to the family-based agriculture sector because it is able to offer employment and livelihood opportunities to the population of the State of Espirito Santo and is also able to avoid the concentration of land. We are extremely concerned about the present struggle between the two sectors. In other words we are concerned about the almost "silent" process through which Aracruz Celulose is purchasing lands in the state of Espirito Santo, taking advantage of the prevailing crisis in the rural areas and contributing to unemployment and to the rural exodus. The picture gets even worse when we notice that the State authorities, instead of defending the interests of a large part of the population, prefers to defend the interests of a multinational and to participate in the "euphoria" which surrounds it.

The State Environmental Agency has clearly taken that kind of attitude, restricting and controlling the debate about the licensing of Aracruz's third pulp mill, neutralizing the critical voices and at the end facilitating a quick approval for the new plant. And if this was not enough, it still insisted in including a condition whereby in the future there will be no restrictions concerning the extension of eucalyptus plantations in our State, thus eliminating a restriction which previously existed in relation with the further extension of Aracruz Celulose's landholdings.

At the same time INCAPER (State Institute of Agricultural Research and Extension) and IDAF (State Agriculture and Forest Institute) have been actively engaged in trying to involve local farmers in the programme "Fomento Florestal" (eucalyptus plantation outgrower scheme), another strategy used by Aracruz to increase the area of eucalyptus plantations. According to countless testimonies of farmers in the rural areas of Espirito Santo, these state institutions have been promoting the "Fomento Florestal" as the alternative to the present crisis, ignoring its social and environmental impacts. Within such context it is important to highlight that recently the municipal authorities of Sooretama had the courage to denounce the purchasing of lands by Aracruz within that municipality.

Taking into account the position adopted by the state bodies, it was extremely relevant that a Special Commission was established by the State Parliament to investigate the expansion of the planting of eucalyptus in our State. Several public hearings took place – including one in the indigenous village of Caieiras Velhas during last year –, where various sectors of society expressed their opinions about the problem and presented serious allegations against Aracruz Celulose. However, since the election process of last year, that commission did not meet again and we have recently been informed that it had ceased its functions without even having presented a report about its activities and findings.

We wish to call the attention on the need to urgently implement a broad and public debate – receiving adequate attention from the media – about the process of land purchasing by Aracruz and the expansion of eucalyptus plantations in Espirito Santo, and that this process be investigated and followed-up by the Public Prosecution Service. It is totally unacceptable that the State Government, while not giving consistent responses to the critical situation being faced by family-based agriculture, provides ample support to an expansion of tens of thousands of hectares of a monoculture without even evaluating and monitoring its adverse impacts. The government's actions are in line with the company's propaganda, which clearly tries to confuse the public.

Our appeal is for the defense of family-based agriculture, for policies and financing which guarantee income generation in the rural areas, the diversification of production, organic agriculture, environmental rehabilitation and marketing of products. In other words, for sustainable agriculture. Such approach will certainly ensure a future for the people of Espirito Santo, both for the farmers and for the rest of the population, which will be able to benefit from this production. This is totally different from what is occuring with Aracruz Celulose in the state, where its operations and actions have favoured the concentration of lands, the concentration of wealth, the valorization of the external market to the detriment of the local needs, the disrespect to our cultural values, the increase of unemployment, and the increase of urban and environmental problems. (WRM Bulletin Nº 46, May 2001).

Brazil: Challenging Aracruz Celulose's power

What is happening in Espirito Santo – one of the smallest Brazilian states – is historic. Mighty plantation and pulp company Aracruz Celulose has generated so much opposition stemming from its activities, that the state Parliament recently passed – almost unanimously – a law banning further planting of eucalyptus until an agro-ecological mapping of the state is put in place, which will define where eucalyptus can and cannot be planted. The law was immediately vetoed – during a "solemn session" – by the Governor and now Parliament must decide whether to lift or maintain the veto.

But the battle is not just between Parliament and Governor but between organized opposition and Aracruz itself. Opposition has greatly increased during the recent years as a result of the wide range of social and environmental impacts resulting from the company's activities, added to the fact that job opportunities provided by the company have dramatically decreased. Additionally, according to local Parliamentarian Robson Neves, the company "does not pay any tax to either the state of Espirito Santo or to local municipalities" where its plantations are located.

The opposition front, originally conformed by some few NGOs and indigenous peoples organizations has now grown to include a great number of other

impacted sectors of organized society such as Afrobrazilian communities, charcoal producers, fisherfolk, landless peasants, trade unions, small farmers, as well as academics, social and environmental NGOs, politicians and other concerned citizens.

Within such context, the author of the law – Parliamentarian Nasser Youssef – put forward the idea of organizing an international seminar on eucalyptus, open to both supporters and opposers to plantations of that species. Aracruz and its experts were to be in the panel, together with panelists bringing in experiences from both Brazil and countries such as Chile, South Africa, Thailand and other. The idea was strongly supported by the local organizations who believe in democracy, pluralism and debate. But Aracruz "declined" the invitation and convinced its experts to also "decline". It addressed a letter to Nasser Youssef, President of the Environment Committee of the State Parliament (full text in Portuguese at http://www.wrm.org.uy/countries/Brazil/Vitoria.html), which merits some comment.

On the one hand, the company tells Youssef – and the state Parliament – what it should be discussing in the seminar. According to Aracruz, the 28 out of 30 parliamentarians that voted the law did not realize that the law was "inconstitutional" and the seminar should thus focus first and foremost on this issue. Secondly, the seminar should be focusing – not on the impacts of eucalyptus – but on the issue of clear and stable rules for corporate investments from companies such as Aracruz which "dignifies the state and the country" through its production and investment. Thirdly the seminar should be discussing the "forestry vocation" of Espirito Santo but instead – according to the company – "the seminar organizers opted for a clearly ideologic and tendentious approach".

(…) In spite of Aracruz's almost insulting refusal to participate, the seminar was a huge success and met all the "criteria" raised by the company: democratic, open, free, consistent agenda, extremely broad participation – lacking only Aracruz, its experts and the Federal Ministry of Environment – and not manipulated in any way whatsoever. And it is interesting to note that the company did not comply with any of its own criteria when organizing, immediately after the international seminar, its "own" seminar – opened by a representative of the same Federal Ministry of the Environment that declined to participate at the International Seminar – where only the people with preconceived ideas in favour of Aracruz were invited and where the people impacted by the plantations were left outside. Corporate discourse and reality appear to be moving along parallel lines that never meet.

In sum, Aracruz's refusal to participate is an example of the arrogance of transnational corporations which believe they have the right to decide on everything and the power to do so. At the same time, it is a way of acknowledging

that organized opposition in Espirito Santo is in fact challenging that power and that the company feels increasingly isolated. All good news! (By: Ricardo Carrere, WRM Bulletin Nº 49, August 2001).

Brazil: Growth does have limits, and scale is truly an issue

Transnational corporations are increasingly dominating all economic sectors where profits can be made. Most of them have incorporated social and environmental concerns to their discourse, though few of them actually comply with their own declarations in this respect. Regardless of their good intentions, the sheer scale of their operations make environmental sustainability practically impossible, while competition to dominate global markets has made social concerns almost antagonistic to profitability.

Examples of the above abound in all economic sectors, but the case of the Brazil-based Aracruz Celulose is paradigmatic, because it was one of the first transnational corporations to embrace the environmental issue prior to the Earth Summit in 1992. This company is the world's largest bleached eucalyptus pulp producer, with a production of 1,300,000 tonnes per year. Aracruz has been expanding its eucalyptus plantations and its industrial plant ever since its inception and there are apparently no limits to its expansion plans. It now aims at increasing its pulp production capacity to 2 million tonnes and this implies the occupation of thousands of more hectares of fertile lands with monoculture eucalyptus plantations.

Although local communities living in the area occupied by Aracruz – mainly indigenous and traditional Afrobrazilian communities – were dispossessed from their lands, the company initially received some support from other sectors of society, who were promised development and jobs. However, the promised development never arrived, while employment has been steadily decreasing as a result of mechanization and outsourcing. According to Aracruz itself, the company has a labour force of "1,689 employees, including our international subsidiaries, Aracruz Produtos de Madeira and Portocel. In addition to our own workforce there are 2,954 permanent outsourced workers, resulting in a total of 4,643 direct jobs in regions where we operate." And these are the jobs created by a huge company, with a huge pulp mill and equally huge landholdings of some 220,000 hectares!

At the same time, existing rural employment has decreased as a result of land purchasing by Aracruz and its plantation to eucalyptus. Given that jobs per hectare in tree plantations are much less than jobs per hectare in agriculture, the resulting employment balance is negative in the rural areas. Additionally, environmental impacts of both plantations and pulp production have impacted further on local people as, for instance in the case of local fishing communities confronted by the depletion of fish due to Aracruz's activities.

The above and many other impacts have resulted in increased organized opposition which even led to a law recently passed by the state Parliament – and immediately vetoed by the Governor – banning further pulpwood plantations until an agro-ecological mapping of the state establishes clear rules on where they can and cannot be planted. The ensuing debate is analysed in the article on Brazil below.

As stated above, the case of Aracruz is but one example of what is currently happening in many parts of the world – South and North. No matter how hard – when they actually do – transnational corporations try to take into account environmental and social issues, the end result is environmental degradation and increased marginalization of people. And the issue is in fact quite simple: the larger the scale, the larger the impacts. Is it not time to begin to rediscuss the "small is beautiful" and the "limits to growth" concepts? (WRM Bulletin Nº 49, August 2001).

Brazil: While the people are roused to indignation, Aracruz celebrates

It is amazing the way in which Aracruz Celulose S.A. is facing the situation in which it is placed, affected by the numerous negative impacts arising from its activities in Espirito Santo and Bahia. At present, the company is finishing the construction of a private airport, sufficiently large for the presidential plane carrying Fernando Henrique Cardoso to land on 2nd August when their third factory will be officially opened, increasing annual eucalyptus cellulose production from 1.3 to 2 million tons.

On the opening day, the highest representatives of the Municipal, State and National governments, faithful allies of the company throughout the whole of its existence in Brazil, will gather around the Brazilian President. The press from that State will be present. It has already begun to disseminate information on the event, praising as ever, the company's contribution to the State's economic development. NGOs such as the "Instituto Terra da Gente," financed by Aracruz itself will also be there. This NGO gave Aracruz, the "Mata Atlântica (Atlantic Forest) Trophy" a joke in bad taste, as this is a company which felled thousands of hectares of the Mata Atlântica. No doubt other associations and societies of forestry engineers, more enthusiastic over the millions of identical, cloned, highly productive eucalyptus, than with the task of understanding the fascinating complexity of a natural forest, will come. Certainly, the National Economic and Social Development Bank will not miss the party, as it has invested thousands of Brazilian Reales in the project for the 3rd factory, instead of investing equivalent amounts in strengthening the State's damaged family agriculture.

It is worthwhile remembering that the 630 million US dollars invested in the new factory were practically all used to purchase machinery made in Europe, which were insured with credits guaranteeing their exports. What remains in Brazil

are solely 172 permanent jobs in the new industrial unit. Even so, at the cost of a debt of the State of Espirito Santo with Aracruz of nearly 100 million Reales, referring to credit accumulated by the company as the productive chain for manufacturing cellulose for export does not have taxes levied on it.

The environment prevailing among the company's managers and directors has become even more festive with the news at the beginning of June that the Supreme Federal Tribunal has decided to consider as unconstitutional the State law prohibiting the plantation of eucalyptus for cellulose until an agro-ecological map is made of the State, defining where eucalyptus can be planted. It is certain that the ministers of the Tribunal, on taking this decision, did not consider the desperate situation of over 100 families in the municipality of Vila Valerio who were evicted from their lands, purchased by Aracruz Celulose. Neither did they consider the 230 million US dollars that the company has to purchase new land, 200 times more money than the amount estimated annually in the state for the agrarian reform, an unsatisfied need that the 50 thousand families in the State have been waiting for. And neither did the Tribunal consider the positive results of the regional public audiences on agro-ecological mapping, which managed to restore to the people a little awareness, a small right to voice an opinion on the future of their children and of their region.

It is also worthwhile remembering that Aracruz had the audacity to state that it will consider whether it is going to launch action against the State for the damage this mapping law has caused them. And the newspaper *A Gazeta* did what no decent newspaper would ever do: it published on its first page that the authorisation to plant eucalyptus would generate 25 thousand jobs, an unfounded figure, without an argument, without the least veracity.

Later, when Deputy Nasser, author of the agro-ecological mapping law prepared a similar law, adopted by the Legislative Assembly on 26 June, his party, the same party as that of President Fernando Henrique, decided to leave him out of their ranks at the next elections. Once more, it is evident that any action against Aracruz Celulose has high costs.

It is in this climate that the opening day for the new factory approaches. On the one hand a mega-company that wants to celebrate, that denies any impact and does not admit criticism or any type of control over its actions by the civil society of which it is part. On the other hand, the great majority of the people of Espirito Santo, and mainly the rural population, increasingly indignant over the way Aracruz operates, conscious that it needs to resist if it wants to have the slightest chance of a decent future.

This is the message that the Movimento Alerta contra o Deserto Verde (Movement to Alert against the Green Desert), congregating sectors representing the rural and urban population, will try to transmit to the whole of society during

the First Fortnight of Resistance to the Green Desert. These will be 15 days of activities in parallel to the opening of Aracruz Celulose's new factory and the declaration by Erling Lorentzen, the Norwegian president of the company, to the Parliamentary Commission investigating the long list of irregularities practised by the company. It should be remembered that, as was to be expected, the press is completely boycotting this important and unusual investigation.

During these 15 days, the Fortnight for Resistance will show public opinion that society will continue offering resistance to a model that excludes the majority of the population, although such a model is imposed and dominates public and non-public spheres that, first of all, should defend the people's interests. (By: Movimento Alerta contra o Deserto Verde no Espírito Santo, WRM Bulletin Nº 60, July 2002).

Brazil: Research questions FSC certification of two plantations

A group of seven researchers assessed the certifications of the V&M Florestal Ltda. Company (Vallourec & Mannesman), which obtained FSC certification in 1999 for its whole area of 235,886 hectares, through the certification firm SGS. They also assessed those of Plantar Reflorestamentos S.A., which obtained SCS certification for an area of 13,287 hectares. With this certification, V&M Florestal became the company with the largest certified area in Brazil. Out of the total area, 128,326 hectares are planted with eucalyptus, while the remaining area of 107,560 hectares, are abandoned cultivation areas and "cerrado" areas, the region's typical bush-like vegetation (the cerrado is a tropical savannah in which herbaceous vegetation co-exists with over 420 species of scattered trees and bushes). Plantar has close on 280,000 hectares, which means that it only certified 4.8% of its land. Thus, we are dealing with two mega-companies in the eucalyptus plantation sector in Brazil, with a production aimed at making charcoal.

Almost all the eucalyptus planted by V&M Florestal is used to make steel tubes at V&M's factory in Brazil. Both companies have a single owner and nearly all the capital is Franco-German. In turn, Plantar S.A., a company with Brazilian capital, uses its eucalyptus for iron smelting, except in the area certified by FSC, where the wood is used for the barbecue. Plantar is also attempting to participate on the "carbon market" aiming at selling carbon credits from its plantations. Summing up, the main activities of the companies assessed are planting and harvesting of eucalyptus for charcoal production.

We have verified that the certifying companies SGS and SCS committed a series of irregularities during the certification process:

- They did not make an in-depth study of the context surrounding the companies planting eucalyptus and neglected a series of important social, economic and environmental aspects;

- They listened to only a few "stakeholders" and then only to the least critical ones. They did not listen to the most important "stakeholders" and therefore, did not obtain essential information on a series of serious problems involving the companies;

- It was not clear whether the conditions and recommendations in fact reverted the evident lack of compliance with certain FSC principles and/or criteria and whether an adequate follow-up regarding compliance with these conditions and recommendations is being carried out

- They did not disseminate the public certification summary for the knowledge of local and regional civil society and the public bodies. SGS did not even place a version of the public summary in Portuguese, the official language of Brazil, on internet.

The following are some of the companies' main breaches of FSC Principles and Criteria, as verified during the research:

- It was verified that neither the V&M Florestal Company, nor Plantar had made an Environmental Impact Assessment or Report (EIA/RIMA), a legal requirement in Brazil before carrying out any undertaking that may potentially cause environmental impacts. As verified, a deadlock exists between the technicians of the responsible state entity, the State Forest Institute, who demand the assessment, and V&M Florestal, that does not want such an assessment to be made.

- There are strong indications that a major part of the companies' land was what in Brazil is known as "devoluta" land, that is, common land and therefore, belonging to the State. Thus, the companies could not have purchased this land. Even so, when searching for land, the companies managed to rent these lands from the dictatorship government during the seventies, by means of contracts with the state agency Ruralminas for a 20-year period. Over the past years, these contracts have started to expire, threatening continuity of tenure.

- Conflicts exist over the land with local owners who have the companies' eucalyptus plantations on their property.

- Since September 2002, a Parliamentary Investigation Commission, installed in the Parliament of the State of Minas Gerais, has its sights on the companies V&M Florestal and Plantar S.A., to investigate the labour conditions of the workers in the extractive industry in Minas Gerais. In March 2002, the Regional Labour Commissariat brought action against both companies for not respecting Brazilian labour laws. Presently the Public Ministry of Labour is bringing them to trial through a Public Civil Action, on the charge of illegal practices of sub-contracting as well as of degrading and precarious work conditions.

- Most of the workers in the certified areas are sub-contracted, with fewer rights and benefits that the companies' permanent staff; it should be noted that the

tasks they carry out are extremely heavy and dangerous. According to the Public Ministry of Labour, there is a "black list" in both the companies assessed, indicating that the companies persecute the workers and their leaders, violating ILO agreements 87 and 98.

- Eucalyptus plantations do not generate social, environmental or economic benefits for the neighbouring communities. The "cerrado" zones, which have always been used by the communities due to their extraordinary biodiversity, were fenced in by the company, preventing these lands from being used collectively by the local communities. The "cerrado" has always fulfilled all the conditions for sustainable use and management, generating employment and income.

- Cerrado deforestation and plantation of eucalyptus by the companies has caused rivers and water sources to dry up, the flora and fauna of the region to decrease, it has encouraged erosion and has poisoned workers, the fauna and existing water resources with agro-toxic products. The V&M Florestal Company continues to use the herbicide oxyfluorofen, defined as toxic and persistent by FSC itself in the year 2000, according to a follow-up report by SGS in 2001.

- Close on 25% of V&M Florestal's eucalyptus plantations are located in a region having an annual rainfall of some 1000 mm, an amount considered as unadvisable for this type of large scale plantation, as witnessed by the dried up rivers, streams and wetlands in the region.

- The companies have a management plan that is only implemented for the eucalyptus areas and not for the others. In the case of V&M Florestal, 46% of the certified area does not have an implemented management plan. Following certification, this company started to submit flora and fauna surveys and follow-up plans for these areas, objectifying a management plan that so far has not been implemented.

- The V&M Company of Brazil, which buys all its charcoal from V&M Florestal, continues buying charcoal from "cerrado wood", to supply its furnaces and without information on the chain of custody, that is to say, there is no guarantee that the certified charcoal really comes from certified Forestry Management Units.

The report concludes that FSC should divide its label into two new ones: one for the management of native forests and the other for plantation management. From these case studies, it is clear that Principles 1 to 9 were established for the management of native forests and that in their majority, are absolutely inadequate for monocultivation of tree plantations, whose specific characteristics are totally different from those of a native, diversified and heterogeneous forest. Furthermore, the transparency and credibility of FSC vis-à-vis consumers would be greatly enhanced if they were able to differentiate the origin of the product they are purchasing: from an "industrial" plantation made by a mega-company

with exotic trees installed in the middle of the "cerrado", or by a cooperative of local communities, managing the cerrado and its native species, in a sustainable way.

In order to "construct" a new and credible certification scheme for plantations, specific principles and criteria need to be discussed based on a wide debate, necessarily involving local communities, to guarantee that future certified plantations offer social, cultural, environmental and economic benefits. This implies introducing a minimum biodiversity of species in each plantation, guaranteeing multiple use and benefit from forest products by the local communities, the ecological stability of the site and a better adaptation of the plantation to its environment.

Therefore FSC has two paths it can take: either it continues certifying millions of hectares of plantations, losing each time more credibility and damaging the local communities, or it reviews the certification of major plantations and takes a new orientation, respecting and desiring to benefit the local communities and their environment, in addition to enhancing its own credibility, and therefore, consumer's trust. (By: Marco Antônio Soares dos Santos André, Rosa Roldán, Fábio Martins Villas, Maria Diana de Oliveira, José Augusto de Castro Tosato, Winfried Overbeek, Marcelo Calazans, WRM Bulletin Nº 64, November 2002).

Brazil: Civil society letter to the Prototype Carbon Fund on Plantar's eucalyptus plantations

The PCF (Prototype Carbon Fund) is the World Bank's fund that mobilizes resources to promote the carbon dioxide trade, whereby contaminating companies – mainly located in the countries of the North – can "negotiate" with forestry producers which supposedly trap carbon – mainly located in the countries of the South. And it is to the PCF that, representatives of dozens of bodies, citizen movements, churches, parliamentatians, city councillors and citizens of the Brazilian States of Minas Gerais, Espirito Santo, Bahia and Rio de Janeiro will be sending a letter. In this letter, they state their concern over the expansion of large-scale monoculture eucalyptus plantations, which has caused a series of negative social, economic, environmental and cultural impacts. They also stated their perplexity and surprise that the forestry company Plantar S.A. had submitted a project to the PCF.

The forestry sector companies, such as in the case of Plantar S.A., were established in the sixties and seventies, in the midst of the military dictatorship, benefiting from attractive tax incentives. The result was the eviction from their lands of the Tupinikim and Guarani indigenous peoples, the traditional Afro-descendent communities and thousands of farmers, increasing unemployment and the despair of these local populations, left without the land, the biodiversity and the water that enabled them to subsist.

The companies planting eucalyptus in Minas Gerais affirm that their tree plantations are lessening "pressure" on the native vegetation – in this case the Atlantic Forest (Mata Atlântica) and the "Cerrado" ecosystem – but they forget to mention that nearly two million hectares in the State were planted at the expense of burning a large part of the Mata Atlântica and the Cerrado. Furthermore, as by law the companies could not own a large part of these lands which belonged to the State, they resorted to fraudulent methods and leasing contracts to occupy thousands of hectares of Cerrado, evicting the local populations from their lands, preventing the traditional collective use of this type of vegetation by the local communities and attacking their way of life and subsistence.

The Plantar S.A. Reflorestamentos Company was founded in 1967 and is devoted to three types of activities:

- provision of forestry services to major companies, mainly in the cellulose sector;

- cast iron works (production of iron ingots);

- plantation of eucalyptus on its own lands (it has 280,000 hectares of monoculture eucalyptus plantations – close on 10 million plants, increasingly cloned – to extract timber and produce charcoal with which it supplies its iron works, thus balancing its business).

The company has FSC (Forest Stewardship Council) certification, granted in 1998 by the certifying firm SCS and covering only 4.8% of its lands where it has eucalyptus plantations. This certification is used by Plantar to sell the so-called "carbon credits" and has already been questioned over a number of serious omissions, one of the main ones being that the local communities were not consulted; thus the seal does not guarantee "sound forestry management."

The Curvelo region, where the Plantar Company intends installing its carbon "sink" project, is a Cerrado region, which has already been affected by eucalyptus plantations that dried up the rivers where their water sources had been planted and contaminated the local fauna with agro-toxic substances used for forestry management. Another important conflict with this company refers to the establishment of a new tree nursery in the year 2000 which implied deviating almost 5 km of a route traditionally used by numerous inhabitants of the zone, to avoid the "dust" from the route affecting the eucalyptus seedlings being produced in the nursery. This caused prejudice to students, teachers and the community in general, who still cover the route on foot. Additionally, to supply its nursery with water, it built three dams on the Boa Morte River, deviating the water consumed by the surrounding population and affecting its quality. The neighbours have gathered to demand that the company install at least a treatment system for the water coming from the nursery.

The denunciations against the company are also aimed at the "special" treatment received by the company from the authorities, insofar as it does not have an Environmental Impact Assessment or Report on its activities, a legal requisite for any undertaking that may potentially cause environmental impacts.

Furthermore, the abominable labour conditions of the company in the production of charcoal and eucalyptus logging have been denounced – illegal sub-contracting and slave and child labour – leaving a tragic balance of workers who have had accidents and health problems and even cases of deaths. The company has been audited by the Regional Labour Office and summonsed to a parliamentary commission. In turn, the occupation of Cerrado zones has contributed to a crisis in the local economy, which is based on products from that native vegetation. Various food factories in Curvelo closed down through lack of raw material, increasing the unemployment, already generalised while Plantar was adopting strategies to lower costs and ensure profitability of the business.

The denunciations are the result of the testimony of the communities surrounding the Plantar's plantations and conversations with the Federal Public Ministry of Labour, workers and former workers of the company, parliamentarians and trade unionists in the region.

The signatories of the letter state their interest in the promotion of economic activities that respect the interests of the community and of nature, and their opposition to projects representing the contrary – as is the case of the Plantar S.A. project – and urge other non-contaminating technologies to be sought, that will generate decent jobs and preserve and restore the environment, an essential requisite for survival and consequently for the future of the local communities.

Finally, they affirm that the Plantar project cannot be considered as a "clean development" mechanism and exhort investors not to invest in this project? (WRM Bulletin Nº 65, December 2002).

Brazil: Stora Enso and Aracruz plan the world's biggest pulp mill

In a few weeks' time, shareholders in Veracel will decide whether to build a massive pulp mill in the Brazilian state of Bahia. Veracel's CEO, Erton Sánchez, described the project: "This will be the largest single line production mill in the world with a capacity to produce 900,000 tons a year. Fully bleached Elemental Chlorine Free pulp will be produced targeting the top end segment of the pulp market. Total investment will be around US$930 million."

Veracel is a joint venture between the Swedish-Finnish giant Stora Enso and Brazilian-Norwegian Aracruz. Jukka Harmala, Stora Enso's CEO says that his vision for the company is "to be the leading forest products company in the

world". Harmala told *Pulp and Paper International* in June 2001: "Our priority in Latin America is to find good fiber sources." In 1999, Bjorn Hagglund, deputy CEO of Stora Enso, explained to the Financial Times that the company's strategy was to increase its pulp operations in Brazil to secure raw material for its paper mills in China and Thailand.

A decision on whether to proceed with the pulp mill was to have been made at the end of 2002. "This project has been so complicated, and it's a big one. It's been postponed until March or April, mainly because of the economics and so forth," explained Timo Heikka of Strategy and Investments at Stora Enso.

Veracel has already planted 63,000 hectares of eucalyptus plantations on the 147,000 hectares of land that the company owns in Bahia. Another 6,000 hectares is to be planted. Regardless of whether the proposed pulp mill goes ahead, Aracruz will buy 3.5 million cubic metres of timber from Veracel's plantations between 2002 and 2004.

Stora Enso's Timo Heikka visited the project area in September last year. He said, "When it comes to the biodiversity and social issues it seems to be one of the best alternatives all in all in the Southern hemisphere." Veracel's Sánchez claims that 78,000 hectares will be set aside for "preservation and recuperation" of the mata atlantica forest. He also mentioned that Veracel owns the Veracruz Station, a 6,000 hectare forest reserve which is recognised by UNESCO as a world heritage site.

Sánchez did not mention that when Veracel arrived in Bahia in 1991, the company planned to convert 80 per cent of its land into eucalyptus plantations. It was only through the intervention of Brazilian NGOs and the union of forestry workers, that the Brazilian environment agency insisted that 6,000 hectares of forest be set aside as a protected area. Neither did Sánchez mention that Veracel has cleared forest to set up its plantations only a few kilometres from the Veracruz Station.

In October 2001, the European Investment Bank (EIB), the financing institution of the European Union, announced that it had approved a US$30 million loan to Veracel for its plantations in Bahia. EIB's Senior Information Officer, Yvonne Berghorst said, "Reforestation with eucalyptus has a beneficial long term influence on the soil by reducing erosion, increasing the infiltration and storage of water and improving the chemical and physical properties and fertility of the soil."

Berghorst's optimism is in stark contrast to the reality faced by communities in Espirito Santo who are forced to live with Aracruz's plantations. In May 2002, in a letter to state-officials of Espirito Santo, local communities, trade unions and NGOs described how streams had dried out since Aracruz started to plant. The letter continued, "For the local communities and the environment in general,

sustainability of eucalyptus plantations is very much questioned, as it is a monoculture of trees with an extremely short cycle, demanding large amounts of chemical fertilisers and agro-toxics."

Stora Enso, EIB, Aracruz and Veracel's representatives did not answer questions about how many people have been moved off the land to make way for Veracel's plantations. Erton Sánchez, Veracel's CEO, commented "The occupation index is extremely low since the population lives on land that isn't the property of the company." He added that the land to be planted has been "previously degraded by former landowners."

José Augusto Tosato from CEPEDES, a local NGO, challenges the company's argument that the land was degraded. Tosato points out that Veracel established its plantations on previously productive grassland and smallholders' properties.

Stora Enso's Environment and Social Responsibility Policy states, "Stora Enso considers an open discussion and interaction with all stakeholders, both governmental and non-governmental, as fundamental." In the case of Veracel, an open discussion is not possible, as environmental impact assessments for the plantations and the pulp mill are not available for general public scrutiny.

In response to a request for the EIA, EIB's Yvonne Berghorst said, "The EIA is a public document that can be obtained from the competent authorities of the state of Bahia, or from Veracel Cellulose S.A."

When asked for the EIA, Erton Sánchez, Veracel's CEO, replied, "The documentation is comprised of 14 volumes with around 2,800 pages. It exists only in printed form therefore it is not feasible to send an electronic copy. Nevertheless these documents are available for consulting at CRA (Environmental Resource Center), a Bahia state governmental agency based in Salvador."

If Veracel's project documents are not freely available, an open discussion is not possible. Any shareholder decision must be postponed to allow civil society in Brazil, Norway, Sweden and Finland the chance to contribute to an open discussion on Veracel. (By: Chris Lang, WRM Bulletin Nº 67, February 2003).

Brazil: NGOs request wide debate on the expansion of tree plantations

In a letter sent to President Lula on 20 March 2003, numerous institutions warn on possible socio-environmental risks involved in increasing the area of tree plantations recently demanded by the sector, unless appropriate planning is established.

The Working Group on Forests of the Brazilian Forum of NGOs and Social Movements for the Environment and Development sent a letter to President Lula on 20 March, stating their concern over the proposal to extend the area of

tree plantations in the country, recently submitted to the government by companies in this sector. The document was sent with copy to the Minister of the Environment, Marina Silva and to the Minister of Agriculture, Roberto Rodrigues.

Mainly composed of alien species such as pine and eucalyptus, tree plantations supply, *inter alia*, the paper and cellulose and building markets. The companies propose increasing the area covered by tree plantations from the present 5 million hectares, to 11 million hectares. Additionally, the sector, presently subordinated to the Ministry of the Environment, is claiming links with the Ministry of Agriculture, through the establishment of a Secretariat for Planted Forests.

In the letter sent to Lula (which is reproduced integrally here below), the NGOs request that the proposal for increasing the sector should be analysed and planned with extreme caution, and that the preparation of a policy for the sector should take into consideration the precepts of effectively sustainable development, later going on to quote the socio-environmental and economic consequences of this activity, particularly for the Mata Atlântica and the Cerrado ecosystems.

For the coordinator of the Working Group on Forests, Adriana Ramos of the Socio-Environmental Institute (ISA), it is necessary to discuss the bases for the expansion of the sector with discernment to prevent undesirable impacts occurring, such as land concentration and hydrological alterations. The Group hopes that the government will establish an agenda for discussions on the issue with the broad participation of civil society.

In a report published on 25 February in the newspaper "Valor Econômico" and reproduced in the Brazilian Association of Renewable Forests (Abracave) site, reference is made to the fact that although the companies know that the sector's proposals are supported by the Vice-President, José de Alencar and the Minister of Agriculture, they are aware that they must demolish the opposition of the Minister of the Environment, who at the beginning of the month had already defended the proposal that sectors such as paper and cellulose and the iron and steel industry will have to modify their form of producing timber from plantations, switching from the plantation of large areas to dispersed plantations, with family agriculture characteristics, guaranteeing sources of employment for small rural farmers.

On 19 March, the request by the Deputy Luis Carlos Heinze (PPB/RS) asking for a joint public audience of the Agriculture and Rural Policy and Consumer Defence, Environment and Minority Commissions of the Chamber of Deputies, was approved at a date to be defined.

Letter from the Working Group on Forests of the Brazilian Forum of NGOs and Social Movements for the Environment and Development, addressed to President Lula:

"His Excellency, Mr. Luiz Inácio Lula da Silva, President of the Federative Republic of Brazil

Brasilia, 20 March 2003.

Your Excellency,

The Working Group on Forests of the Brazilian Forum of NGOs and Social Movements for the Environment and Development, gathering the country's main non-governmental institutions interested in the subject, met in Brasilia on 12 and 13 March. On this occasion, it agreed to transmit to Your Excellency its disagreement with the "Proposal for an Agenda for the Brazilian Sector of Planted Forests" submitted by the companies of this sector to Your Excellency.

The agenda presents requests that do not take into consideration the need to prepare a specific policy for the sector, linked to environmental, agrarian, credit, generation of employment and income and struggle against hunger policies.

The activities of the "planted forests" sector, fundamentally based on the plantation of alien species such as pine and eucalyptus, have serious consequences on social, economic and environmental dynamics, particularly in the region of the Mata Atlântica and the Cerrado, where most of these monocultures are concentrated in Brazil. Considering that these biomes conserve a scant 7% and 30% respectively of their original cover, the mass expansion of those plantations, from five to eleven million hectares, must be analysed and planned with extreme caution, in the framework of a government policy that is in harmony with the precepts of effectively sustainable development. There is much to be included in the equation of economic benefits and social-environmental liabilities of this activity, as shown, for example, by the many labour-related proceedings involving companies from this sector.

At a time when the Brazilian government, through its National Forestry Programme of the Ministry of the Environment, is carrying out negotiations with the World Bank on a loan for the forestry sector, it is critical to establish a process of discussion of a policy regarding tree plantations.

It would be a great risk for the country to follow up on the demands for "planted forests" without previously defining a government policy for the sector, ensuring that the activity will be carried out in an environmentally sustainable and socially just way, effectively benefiting the local population and guaranteeing the precautionary principle. We emphasize that any policy for the expansion of "planted forests" must avoid increasing the concentration of land, the elimination of native vegetation, hydrological alterations and occupation of food-producing lands. In addition, planning of the activity must be based on technical and scientific information, proven and widely discussed with society.

We are sure that the government of Your Excellency is willing to promote the necessary debate to channel this issue in the best way possible and remain at your disposal to participate in the relevant discussion process.

Yours sincerely,

(signatures follow).

Cc: Minister of the Environment, Marina Silva, Minister of Agriculture, Roberto Rodrigues

(WRM Bulletin Nº 68, March 2003).

Brazil: The need to avoid eucalyptus causing the same damage in Sao Paulo as it has done in Minas Gerais

In spite of the fact that it is one of the country's most wretched zones, the Valley of Jequitinhonha in Minas Gerais has been the main and paradigmatic goal of the "citizen caravans" of the candidate Lula – in more than one of his presidential campaigns – and one of the zones chosen to play the new government's strong card – the Hunger Zero plan – it is odd to note that nothing has been said about the concrete reason (in addition to generic reasons due to socio-economic and perhaps political underdevelopment) that has led this part of the territory of Minas Gerais to such a degraded and economically unsustainable condition. However, some testimonies by representative personalities in the region, during radio interviews on the occasion of the visit by the presidential committee, reported that some 26 years ago the Jequitinhonha was a fertile valley, with many crops and cattle raising and that it started "drying up" due to the substitution of native forests by the indiscriminate plantation of eucalyptus.

Faced by the dramatic previsions of the UNESCO report on the diminishing of springs over the next 20 years – a report submitted to the 3rd World Water Forum held in Kyoto – and facing the possibility that all the remnants of biodiversity will be damaged, together with the water resources available to supply the largest (and most important) Brazilian city, it would be valuable to discuss the risks of the rapid and on-going substitution of riparian native forests by eucalyptus plantations in the municipalities close to the city, such as Nazaré Paulista – where the Atibainha dam is located, the main spring of the Cantareira System – Piracaia, Joanopolis and others. Because in this zone, mainly over the past five years, a beautiful and varied native vegetation that harbours natural springs, streams and small rivers and is the habitat of a wealth of wildlife, has given way to monotonous lines of identical trees, that have nothing to attract birds – or any other species of fauna – and that are quickly cut down to be used as firewood. Only a few areas are left that have resisted illegal logging or the sterile "reforestation" of eucalyptus "cultivation." These are not trees benefiting the cellulose industry – as the zone does not have one nor would it be feasible

due to its characteristics – and still less do such plantations respond to technical criteria for the redistribution and/or preservation of a percentage of native forests. It is only wood that has drunk a lot of water, but that can only be used as firewood…

In the old controversy over the environmental effects of eucalyptus plantations, in spite of the arguments – generally based on scientific work sponsored by major companies that industrially exploit this tree – endeavouring to present as simple "myths" the damage caused by eucalyptus to soil fertility and to springs, ample bibliography exists proving at least three basic aspects: this tree's high demand for water can deplete ground humidity and harm ground-water recharge, destabilizing the water cycle; the great intake of nutrients by the roots can generate a major deficit in the soil and destabilize the nutrient cycle; the release of chemical substances – or alelopathic effects on the micro-flora – can alter plant and micro-organism growth and further reduce soil fertility.

The United Nations Food and Agriculture Organization (FAO) and many other international bodies, in addition to universities and European, Indian, Australian and South African scientific institutes, have discussed the issue at length, but very often environmental concerns clash with the interests of industrial groups that rely on this tree of Australian origin, which started to be grown in Europe in the middle of the nineteenth century (and in Brazil at the beginning of the twentieth century). Already in 1887, there were reports in South Africa – one of the first countries to establish large-scale eucalyptus plantations – testifying that the climate of the country was becoming dryer, the previously abundant water sources were decreasing and the watercourses were becoming intermittent.

One hundred years later, in 1987, the Portuguese author, Antero Gonçalves wrote a book with the title of "Eucalyptus and Man," in which he states: "It is not worth continuing to repeat that the eucalyptus is against human beings, it is against the land, it is against water, it is against everything. It is hard to understand how the people in the countryside accept tranquilly and quietly that the best arable lands are corrupted by the infernal globule [*Eucalyptus globulus*] that threatens to turn us into a desert." In Spain a movement exists promoting the plantation of native species, called the Phoracantha Club, in homage to the beetle [the longhorned borer] that destroys eucalyptus trees.

It is not without reason that the laws of many countries restrict this type of plantation. In Brazil, a law has been adopted in Espirito Santo, prohibiting new plantations of eucalyptus in this state. It would be advisable for Sao Paulo to also establish similar restrictions, at least in areas with important springs, such as the one mentioned above, and thus avoid witnessing in a few years time the still diversified (and not desertified) parts of the Nazare Paulista vegetation – with its native forests, its natural springs, its birds, its monkeys and even wildcats, at only one hour from the capital – converted into a desolated Jequitinhonha

that only lends itself to the visit of tearful caravans of future presidential campaigns, while in Sao Paulo we will have to buy drinking water at the price of gold (or of clean air). (By: Mauro Chaves, WRM Bulletin Nº 69, April 2003).

Chile: True forests

Since August 2000, Chilean forestry companies are carrying out an aggressive publicity campaign under the slogan of "Forests for Chile." Many of us Chilean people feel that we are being attacked by this campaign, which is being very strongly promoted through the mass media.

According to the timber corporations' organization CORMA, which groups the large wood and pulp industries, this campaign will be implemented during five years and during its first phase it will cost one million dollars. The total cost of the campaign is estimated in 6 million dollars. The campaign will be carried by all the communications media (television, radio and press), accompanied by different opinion articles written by prominent executives from the more important forestry companies.

The aim of the campaign's messages is to generate confusion. For instance, the TV spots show pine tree plantations, saying that they are "Forests for Chile." The same publicity shows a house, furniture and other wood products and says: "wood, a renewable resource", repeating "Forests for Chile." Radio publicity is not very different. The sound of a hand knocking on wood is heard and the broadcaster names different musical instruments (piano, guitar, violin, etc.) and repeats: "Forests for Chile." The campaign obviously aims at improving the image that the Chilean public has on the forestry sector, given that the results of a survey carried out by CORMA itself showed that 97% of Chileans believe that forests are endangered.

Through this strategy the Chilean forestry companies aim at hiding the impacts they have caused with the establishment of large scale tree plantations: soil erosion resulting from clear-cutting, the use of agrochemicals which end up polluting water courses, the poor working and living conditions and miserable salaries received by forestry workers. It also aims at concealing the serious impacts that these plantations have inflicted on biodiversity by occupying extensive areas, fragmenting the habitats of native species and substituting at least 200,000 hectares of native forests during the past 25 years. The campaign says nothing about the way in which the lands now occupied by plantations were acquired, nor about how the state has during all these years subsidized the establishment of alien tree plantations with the consequent enrichment of large scale plantation owners. Neither does the campaign explain that the objective of these plantations is not to produce high value-added wood products, but are instead oriented at producing raw wood and pulp for export.

The environmental, ecological and consumer organizations are extremely worried about this and we have begun to carry out actions in response to this campaign. The first is to request support from organizations and individuals to a "public clarification" which we have named "True Forests for Chile." Each of the supporting organizations will commit itself to carry out, within its possibilities, actions to expose the corporations' campaign.

However, in spite of the difficulty of counteracting the effects of such a well funded campaign as that being implemented by the corporations, the Chilean non governmental organizations can feel very proud about their success. Through the launching of this campaign, the forestry sector is acknowledging its increasing social discredit resulting from its own actions and from the permanent fundamented critique of civil society organizations over the serious impacts that tree monocultures have had on Chilean forests, on other ecosystems, on biodiversity, on water, on soils and on the local populations in the regions invaded by plantations. They have been forced to take 6 million dollars from their pockets in order to improve their image. And even though they have more than enough, taking dollars from their pockets is for them always painful. (By: Flavia Liberona, WRM Bulletin Nº 39, October 2000).

Chile: Wine production threatened by pulp mill project

For decades small and medium scale peasants of the Itata Valley have developed economic activities based on wine production. Wines produced in the area have recently obtained a high quality export product certification. As a result of their hard work during years, the population of the region has been able to generate an activity having enornous economic and social potential.

In January 2000 the Regional Commission for the Environment (COREMA) of the VIII Region rejected the application for the project "Industrial Forestry Complex Itata", to be located in the area. The project comprises several activities related to the forestry sector, including the setting up of a pulp mill at the Itata Valley. The reason for the denial of the authorization was that such project would generate negative environmental impacts. The proponent company – Celulosa Arauco y Constitución S.A. – belongs to the Angelini Group, one of the most powerful economic holdings in the country.

Celulosa Arauco appealed to the National Commission for the Environment (CONAMA). According to the Chilean Basic Environmental Law, whenever such situation occurs, the body in charge of making a final decision on the viability of the questioned project is the Cabinet Meeting. The Cabinet is advised by a Consultative Council which – in theory – is formed by representatives of different sectors, such as NGOs, scientists, independent academic centres, workers, companies and the government. However, their delegates are not democratically elected by the organizations, but directly nominated by the country's President.

In a surprising move, a few days ago the Consultative Council decided to recommend to the Cabinet Meeting that the environmental permit for the project be granted. How can this be explained? Several public services, as well as an Expert Panel of the Catholic University of Chile especially contracted to study the project, had concluded that the establishment of the pulp mill in the Itata Valley is incompatible with the current economic activity prevailing in the area: grape and wine production. The implementation of the project would result in a conflict between two incompatible economic activities: the current wine-tourism activity versus industrial forestry.

Additionally, from the very beginning the project has been strongly opposed by the five communities living nearby the projected site of the Itata Complex (Ranquil, Coelemu, Trehuaco, Quillón and Portezuelo). Far from being groundless, their opposition is based on the fact that the installation of a pulp mill would produce high levels of pollution. The industrial production of cellulose implies the use of chemicals containing chlorine which are highly toxic. Additionally, dioxines are emitted to the air. These substances have proved mutagenic and carcinogenic. This means that not only the environment would be negatively affected, but also severe damages would impact on the health and life quality of the people living in this valley.

An argument frequently used to promote this type of investments is that of job generation, which currently constitutes a severe problem in Chile. Nonetheless, also in this regard the recommendation of the Consultative Council is not appropriate, since at present grape and wine production provides 3,000 permanent jobs, while the Itata Forestry Complex would generate only a total of 1,200 jobs.

Many questions remain unanswered. What is really being evaluated? Is it the lobbying ability and the power of one of the major economic groups in the country or the environmental impacts of the project? Are community interests and local economies really taken into account when deciding what is best for them?

Now the responsibility lies in the hands of the Cabinet Meeting. Its decision will in fact reveal what the real environmental and economic policy of the Chilean government is. (By: Flavia Liberona, WRM Bulletin Nº 40, November 2000).

Chile: Tree monocultures threaten unique forest type

The fragmentation of habitats resulting from human activities – among which industrial tree plantations – provokes restrictions in the supply of resources and the spacial needs of animal and plant species, which can even lead to the extinction of entire ecosystems. Once landscape structure has been altered the persistence of both plant and animal populations is menaced.

The central and southern regions of Chile have been and are being extensively planted with fast-growing tree monocultures. These regions gather in their temperate forests the highest diversity and endemism in the country. Plantations' present area is estimated in some 2.5 million hectares, with Monterrey pine (*Pinus radiata*) representing 80% of the total. A study carried out by the government agency CONAF in 1997 already showed that the annual deforestation rate during the 1985-1994 period had been of 36,700 hectares and that almost 40% of such area was destroyed to clear land for industrial tree plantations.

Additionally to the social conflicts that such development has generated, several studies since the decade of 1980 point out that changes in the landscape provoked by plantations have caused negative effects on the environment, included the affection of the habitats of native species. Independent research coincides in stating that the degree of perturbation caused by plantations of P. radiata is high. Ecological alterations have sometimes affected the plantations themselves as happened during outbreaks of defoliating insects and rodents registered in plantations in Chile.

A research published by a group of researchers of the Universidad de Chile and the Carleton University of Canada analyses the deforestation and fragmentation of the ruil forest (*Nothofagus alessandri*), a temperate and endemic formation restricted to 100 km of the coastal range of Central Chile, in association with Nothofagus glauca, Nothofagus obliqua and other species. The ruil forest area was estimated as comprising 825 hectares in 1981, but had shrunk to 352 hectares in 1991, mainly due to the expansion of plantations of Monterrey pine. The remnants of the ruil forest now have the configuration of an archipelago – composed of several small, regular fragments and few large, irregular ones, relatively isolated – and surrounded by a matrix of pine plantations. Despite being a unique and severely threatened ecosystem, only 45 hectares of the ruil forest are under protection in the Chilean System of Protected Areas, and such protection – even without taking into account that the area is insufficient considering the present state of the ruil forest – is not actually implemented.

The research considers that the situation is critical, since the effects of deforestation and fragmentation imply, in the short term, the loss of species and that of this unique ecosystem: "The ruil forest as an ecosystem is heading toward extinction. If the current rate of deforestation remains unabated, even ignoring deleterious effects other than area reduction, the ruil forest as a recognizable biome will disappear within the next decade due to the extinction of many species associated with this forest", expresses the document.

Additionally, Monterey pine presents further threats to the ruil forest: it is an invasive species intruding on the fragments of ruil forest; due to its higher ability to obtain water, it could outcompete native trees; Monterey pine is also fire-

prone and since the ruil forest is embedded in a pine matrix, any fire in plantations may obliterate the ruil remnants.

The authors conclude that land use in central Chile is not sustainable. "Sustainability implies economical, ecological and socio-cultural issues. Even when pine plantations may offer a profitable economical income (under current market interests), this benefit is reached at the expense of socio-cultural and ecological aspects. From a socio-cultural point of view, extensive forest plantations increase poverty and unemployment as plantations demand low workforce. The increasing local unemployment has triggered the emigration of peasants (Lara & Veblen 1993, Unda et al. 1997). Furthermore, the loss of native forest because of an inappropriate management is considered by local people to be one of the main environmental problems of the region (Hajek et al. 1990). From an ecological point of view, land management is definitively unsustainable. We have no evidence that Monterey pine is degrading the land where it is planted, but as discussed above, this exotic species is the main reason for ruil forest loss and fragmentation, and ultimately for its current endangered status." (WRM Bulletin Nº 45, April 2001).

Chile: Repression or solution to the Mapuche-forestry company confrontation?

Recently, serious events took place in the city of Temuco, ending in over 125 community members in jail, many injured and serious destruction. These incidents are the result of a long chain of encroachments that the Mapuche people have suffered throughout the whole of the twentieth century and that have not been recognised either publicly or fundamentally by the State, which continues to act in favour of forestry companies, providing them with all kinds of support, among which, placing the police force at the companies' service.

Days before these events, the headquarters of the Mapuche organisation Consejo de Todas las Tierras was destroyed by a police contingent which threw tear gas, broke windows and attempted to evict by force twenty Mapuche who were inside the premises. This repressive police operation was carried out in compliance with an "order" by the attorneys Alberto Chifelle – pointed out by Mapuche organisations as being involved in encroaching on land – and Francisco Rojas, to "gather background information."

In repudiation of this senseless act of vandalism – the Police commander stated that he had no knowledge of it – a peaceful march took place in the centre of the city of Temuco. Nine Mapuche organisations of the region participated in this march, the most important one to be held over the past few years. The peaceful climate was altered when a strong contingent of police arrived, supported by water-throwing police vans, armoured cars and police on horseback, with the aim of dispersing the demonstrators.

According to the newspaper “La Tercera” the police confirmed that significant damage was done to public property and that “these had been the more violent action than ever taken place in this region.” They added that those under arrest would be placed at the disposal of the Military Prosecutor, some of them for maltreatment of police officers while on duty, others for significant damage and the rest for disorder.

However, those who have the most right to talk of damage and violence are the Mapuche, who over the past years have insistently complained of the asphyxiation and penning in that the communities bordering with forestry companies suffer, the loss of their lands, the lack of productivity and scarcity of water caused by alien tree plantations, the forced emigrations, the presence of para-military forestry security groups, the conspiracies, sabotage and repressive attitude of the companies against the Mapuche, the arbitrary arrests and legal processes.

According to a letter from José Aylwin, lawyer for indigenous matters from the Institute of Indigenous Studies, University of la Frontera, for a long time now the Mapuche have been voicing their disagreement with the processes that are taking place on their ancestral lands, affecting their rights. Basically he highlights the expansion of forestry activities over lands that historically belong to the Mapuche and are recognised and protected by legislation because of their indigenous nature. The plantation of alien trees has literally enclosed the communities within their own ancestral lands (the forestry companies own 1.5 million hectares of land to the south of the Bio Bio) seriously affecting the Mapuche land and waters.

In spite of the fact that forestry companies claim to have Constitutional rights over the lands they possess, since the middle of the nineteenth century, the Mapuche “have seen their lands gradually diminish, first through their establishment in reservations, then by the division and confiscation of their communal lands promoted by the State, and later, through the loss of land that was granted to them during the agrarian reform. This is a process that the Mapuche have a name for: usurpation.”

All this has led to an increasing gap between the Mapuche world and the State and the private companies present on their territory. The Mapuche are claiming what – according to their history, conception of the world, their system of norms and values – they consider belongs to them and has been taken from them. For its part, the State imposes its law. The consequence of this lack of communication is the violent situation presently reigning in the Mapuche communities and progressively getting worse.

As to the acts of violence, José Aylwin states that “there is an enormous lack of proportion between the Mapuche action and the force used by the State agents,

or even private security agents, to repress the indigenous people." As a matter of concern is the fact that "the use of fire-arms by the police against the Mapuche people involved in action in defence of their rights, has now become a routine" and also "that the police forces act together with the companies that are present on Mapuche territorial space. Such is the case of the joint action of Carabineros, Police Investigators and forestry company guards in the area of Malleco. This is an openly illegal action, that cannot continue to be protected by the authorities."

The government has two paths to follow, either the honest search for solutions or the increase of repression. For the time being it would seem that they have decided on the second option, which is clearly a dead-end, as seen by the escalation of violence in the South. It is time that the Chilean State takes on its historical responsibility in the drama of the Mapuche people and that it starts looking for real solutions, which necessarily involve returning the lands encroached on by forestry companies during the Pinochet dictatorship. (WRM Bulletin Nº 48, July 2001).

Chile: Playing God with trees for money making

On July 20, 1999, Biogenetic S.A., a joint venture between Fundacion Chile (Santiago, Chile) and InterLink biotechnologies, (Princeton, NJ) announced the creation of a new venture for the development of "improved" forestry species: GenFor S.A.

The idea follows what biotech firms are already doing with corn, potatoes and soybeans. Using *Bacillus thuringiensis*, or Bt, a naturally occurring soil bacterium that kills pests if inserted into growing plants, researchers at Genfor in Chile say they are near to producing a commercially viable genetically engineered tree.

The reasons for doing this are several, but all linked to a socially and environmentally unsustainable forestry model based on fast-growth, large-scale tree monocultures. Eighty percent of Chile's tree plantations are composed of one single – and alien – pine species: *Pinus radiata*. These plantations have been infested by the European shoot-tip moth (*Rhyacionia buoliana*), and being monocultures they have become a huge food supply for this tiny insect. The moth larvae burrow into the main stem and secondary branches of Radiata pine and cause the death of the tips of both stem and branches, leaving timber companies with a stunted bush instead of a healthy tree. The shoot-tip moth ruins about 30% of the harvest when it goes untreated, and 10% even with treatment, according to Chile's National Forestry Corp. Chile's forestry companies currently spend US$3 million annually to control the moths through the release of wasps that prey on the larvae.

Genfor says it has successfully implanted seedlings with the Bt protein, which kills moth larvae before they can do damage. The company predicts that its insect-resistant pine will be ready for the market in 2008.

But resistance to insects is not the only aim of Genfor. Even more significant is Genfor's joint efforts with Canadian biotech company Cellfor to raise the level of cellulose and modify lignin in Radiata and Loblolly pine (*Pinus taeda*), key traits to Chile's enormous cellulose pulp production. Lignin is an element that must be removed to make cellulose and its removal is the most expensive stage of pulp production. The industry would thereby very much welcome a raw material with a larger cellulose content.

The joint research in Cellfor's Canadian lab achieved a 20% cellulose increase in poplar and is now transferring that experience to the pine species. By 2003, concrete results are expected. Because Loblolly is planted extensively in Argentina and Brazil (as well as the southern United States), the project will be Genfor's entry into its larger target market of South America.

In sum, it's all about money and power for the already wealthy and powerful. If these GE trees are allowed to be used, the current social and environmental impacts caused by tree monocultures – in Chile and elsewhere – will only be exacerbated. Unless something is done to prevent their release in the environment, their yet unknown impacts will be borne by future generations of people, animals and plants. If corporations are allowed to play God, then God save humanity! (WRM Bulletin Nº 58, May 2002).

Chile: Environmental organisation questions FSC standards for plantations

According to information available in FSC's web page, seven companies in Chile have certified "forests" covering a total area of 262,168 hectares. However, only one of these companies (Las Cruces S.A.) is actually managing a forest, covering an area of only 3,588 hectares. The rest (258,580 hectares) are monoculture tree plantations, which unfortunately continue to be considered as "forests" by FSC.

In its own web page (in the section "why we do it,") FSC establishes its objective of "providing a truly independent, international and credible labelling scheme on timber and timber products. This will provide the consumer with a guarantee that the product has come from a forest which has been evaluated and certified as being managed according to agreed social, economic and environmental standards." This affirmation is clearly false in the case of Chile, for the simple reason that FSC cannot give any guarantee to the consumer that the product being acquired comes from a soundly managed "forest" given that the forest does not exist, unless monoculture plantations of alien trees can be considered as forests.

It is important to stress that FSC promotes the establishment of national standards for certification, in conformity with its general principles and criteria.

Chile is one of the countries where a "national initiative" exists (involving forestry companies and NGOs), aiming at this objective. However, the adoption of national standards is not an easy task, as will be seen from the following paragraphs, written by a Chilean activist, defender of forests (Malú Sierra) who has been deeply involved in the process. Malú describes a visit paid recently to one of the certified plantations (the El Guanaco holding: 4,138 hectares) that belongs to the Terranova Group's Forestal Millalemu company, in the Commune of Quirihue in the south of Chile, related to her perception of the problems concerning certification of plantations.

"After many months, indeed years, of discussions around the working table, with papers and slides projected, always in the cities of the South or in Santiago, Forestal Millalemu (with over 120,000 hectares of certified plantations in Chile) invited us to pay a field visit to one of its plantations, certified by FSC. The courteous company manager in Chile, Jorge López, sacrificed his beautiful maps so that the Plantation Committee knew where we were exactly. The rain did not stop, each time we climbed out of the 4X4 vehicles, full in the month of November – the 7th to be exact – the El Niño phenomenon gave the present of rain to this zone of inland drylands, wetting us who were not entirely prepared. Neither were we prepared to see the hills shorn of trees in the Quirihue Cordillera.

The principle owner of Forestal Millalemu is the Swiss businessman, Stephan Shmidheiny, one of the first to join the sustainable development concept, and supposedly his plantations in Chile are the ultimate expression of the sustainable concept, from an economic, social and environmental standpoint. Supposedly…

The FSC green label ensures that Millalemu does not substitute native forest with plantations, but does not demand that where the forest is re-growing, it should be left to grow, making a more careful harvest of its plantations. We saw oak shoots under pine trees, planted 20 years ago and ready to be harvested. With the harvest, the oak trees testifying that in this location, long before 1994, forests had been substituted by plantations will also disappear. The FSC label also demands that measures be taken to mitigate the damage to the soil: they no longer burn the litter after the harvest – this is progress – but grind it and leave it on the ground so that eight or ten years later it becomes soil.

FSC also imposes social conditions and we saw old buses go by, transporting the workers back from their tasks. In the old days, they used to travel in open lorries. In this zone, there are no indigenous communities, so the company has no problems over claims to the land by its original owners. They do have problems with the Mapuche in another property, and therefore it has not been possible to certify the plantations there.

So far, FSC has not recommended the method of harvesting. The method used in the Chilean plantations is clear-cutting, the same as in the United States,

were the alien tree most used in Chilean plantations also come from. This is the Monterry pine (*Pinus radiata*). Among its principles, FSC establishes general criteria that must be developed in each country to adapt them to each situation. These have not yet been defined in Chile, due to the position of already certified forestry companies, some of which consider that there should be no limits, not even on the dimensions of clear-cutting. One of the justifications is that the large companies such as Mininco (which is not certified), harvest up to 2,000 continuous hectares.

It is important to note that Chile is a mountainous country and therefore clear-cutting, which always has a negative impact on soils, is twice as serious here, because most of the plantations are installed on slopes of over 35 degrees. In fact, it is precisely for this reason that clear-cutting of native forests is prohibited. Therefore, it is clear that from the environmental standpoint, that the clear-cutting method of harvesting is not acceptable in any plantation, and much less in a certified one.

In Chile discussions can go on for a long while yet, but the Defenders of the Chilean Forests (Defensores del Bosque Chileno) have resigned from the Technical Committee for Plantations but not from the board of directors of the Chilean Initiative for Independent Forest Certification (Iniciative Chilena de Certificación Forestal Independiente – ICEFI), nor from FSC. It is now irrelevant whether it is fifty or five hundred hectares that are clear-cut. We are absolutely against clear-cutting, and we have not seen any significant progress being made at the meetings. And what is more serious, and left to future precisions, is how the new forestry plantations that want environmental certification should be installed in order to ensure that the soil is covered, especially in sloping zones where in spite of all the mitigations, erosion continues to take place.

The consumer trusting in the FSC seal would not like to see these pictures. Unfortunately I saw them and still hold them in my memory." (WRM Bulletin Nº 66, January 2003).

Chile: Mapuche defend their land from forestry companies

The Mapuche held off European incursions onto their land for centuries. Now, relegated to reservations – called "reductions" – most Mapuche work as impoverished farmers or field hands or live as a marginalized minority in Chilean cities. However, they are fighting back. "Our objective is the recuperation of the territory of the Mapuche people," Ancalaf, 40, said in a jailhouse interview with journalist Héctor Tobar of the "Los Angeles Times". "We want to control our destiny and shape our future according to the cosmology of our people."

Held without trial since November under anti-terrorism laws passed during the dictatorship of Gen. Augusto Pinochet, which deprive detainees of the right to a

speedy trial and allow prosecutors to withhold evidence from defense attorneys, Ancalaf and a dozen other militant leaders have become heroes to many Mapuche, even those who disagree with their tactics.

In the Chilean media, the modern "Mapuche conflict" is most often portrayed as a struggle between the order and reason of the country's European heritage and an indigenous culture dominated by "superstition" and violence. Smoldering for decades, the conflict over land began to catch fire again in the late 1990s. Many view the globalisation of the Chilean economy and the government's free-trade policies as the cause. The grain and dairy farms that were once the cornerstone of the regional economy have been hard hit by cheaper US exports and many farmers are forced to leave land fallow or sell out to the forestry companies.

Mapuche lands are increasingly covered or surrounded by eucalyptus and pine planted in old wheat fields or where native forests stood. Most of the trees planted in the region are Monterey pine – a species native to California – and eucalyptus from Australia, and are harvested by machine, processed into lumber and paper pulp and sent to North American and Asian markets. The concentration of large-scale fast-growing plantations causes ground water to disappear and wildlife is affected by the lack of undergrowth crucial to its survival. A number of species of native trees, integral to Mapuche production and cultural activities, are being driven toward extinction. According to one Chilean government study, all native trees outside national parks could disappear by 2015.

In November, Mapuche activist Edmundo Lemun, 17, was shot and killed by police during a protest at tree farms in Ercilla. On January 20, more than a dozen hooded Mapuche with homemade shotguns and Molotov cocktails invaded forestry company Mininco workers' camp outside the town, setting fire to the living quarters.

As elsewhere, water shortages contribute to the conflict. "Twenty years ago, I don't think anyone in our community imagined that one day we would have to bring in water trucks to provide for the basic needs of our families," said Alfonso Rayman, a leader of the Nagche Mapuche, a subgroup that includes several communities around Lumaco. A few days earlier, in a small act of defiance, a group of boys had set a fire in a hillside meadow near the town, Rayman said with a slight smile. The blaze ran up the hillside and killed hundreds of saplings. Today, several leaders from the Lumaco area are behind bars, charged with destroying forest company property.

However, no institutional authority condemns the clear-cutting of Mapuche property – their land, their forests – carried out by forestry companies in order to make way for their large-scale monoculture tree plantations. As Chilean activist, defender of forests Malú Sierra denounces "Chile is a mountainous

country and therefore clear-cutting, which always has a negative impact on soils, is twice as serious here". On the contrary, some of those companies are entitled to go on with their profitable business under the label of "certified" plantations by FSC standards. And even worse, in the case of the Millalemu company, it is being nominated to the National Environment Award granted annually by the Chilean National Environment Commission!

Things are clearly upside down. The traditional owners of the land are evicted and imprisoned for taking action to get it back. The companies responsible for the social and environmental destruction of the region are certified and nominated for environmental awards. A real farce. However, in spite of all their power, forestry companies are increasingly isolated in a growing sea of Mapuche protest. Which will certainly continue to grow. (WRM Bulletin Nº 68, March 2003).

Colombia: "Tailor-made" legislation for Smurfit

Private commercial tree plantations began to be implemented in Colombia in the 1960s. Long-fibre wood commercial plantations – pine and cypress – are mostly located in the West of the country, in the Departments of Antioquía, Caldas, Quindio, Risaralda, Valle and Cauca, while in the central zone – in the Departments of Cundinamarca and Boyacá – there is a dominance of Eucalyptus globulus.

Impacts resulting from large scale tree monocultures in that country have been denounced since the 1970s. A research from that time, ordered by the Colombian State itself to evaluate the effects of conifer plantations in the Department of Cauca reached the conclusion that they were destroying natural ecosystems. Additionally, during the 1990s tree plantations in watersheds of importance for water supply were banned in several municipalities, while several forestry companies were fined for having burnt the forests to give place to plantations. In spite of that, large scale plantations continue being promoted under the influence of the globalization model and with support from government authorities and internacional credit agencies.

One of the most relevant actors has been Smurfit Cartón de Colombia, which is responsible for the environmental damages provoked by the felling of the forests of the Biogeographic Chocó Region, the pollution of the River Cauca and air pollution in the city of Yumbo. The activity of this company in Colombia started in 1957, when Celulosa y Papel de Colombia S.A. (Pulpapel) was created. It was integrated by the Instituto de Fomento Industrial (IFI), Cartón de Colombia and Container Corporation of America, a subsidiary of Mobil. Later on, Container sold its shares to Cartón de Colombia and the company adopted the name Smurfit Cartón de Colombia. The firm is part of the multinational Jefferson Smurfit Group plc, with headquarters in Ireland, which is one of the biggest producers of paper-based packaging in the world, with operations in twenty

countries. Most of its profits are made in Latin America. In 1993, for example, 70% of Smufit's profits came from Colombia, Mexico and Venezuela.

Why has Smurfit chosen these countries and Colombia specifically? Apart from the good growth rates of pine plantations, the weakness of environmental controls and the low cost of labour – due to the employment of informal workers and subcontractors – one capital reason has been the capacity of Smurfit – resulting from its powerful influence on government – to achieve the passing of legislation beneficial to its interests.

To begin with, Law 99 of 1993 allocated a place to the forestry private sector in the National Environmental Council. The Colombian Association of Plantation Companies (Asociación Colombiana de Reforestadores - ACOFORE), created at Smurfit's iniciative, obviously nominated Smurfit to occupy that seat.

Additonally there are several legal benefits that favour Smurfit, some of them almost ridiculous. For instance, the so called Forestry Incentive Certificates (Certificados de Incentivo Forestal – CIF), approved in 1993 as a "recognition of the Colombian State to the positive externalities of reforestation resulting from its enviornmental and social benefits", plantation projects using exotic species are granted the same benefits as those using native species, whenever "it is shown by scientific studies and applied research that the used species has exceptional qualities to create a forest cover and for the conservation and regulation of waters". Taking into account the proven negative effects of fast-growth tree monocultures on water dynamics in watersheds, the above is difficult to imagine. Nevertheless, the company is able to achieve such "scientific proofs" and benefits from the CIF.

Smurfit also benefits from different kinds of tax breaks for promoting what the legislation erroneously calls "reforestation". For example: a discount of 20% in rent taxes on new plantations, an 80% deduction in the value of the taxable products from the harvest, tax exemptions on technical services related to tree plantations, established by the 1995 Budget Bill.

Colombia's forestry policy has taken an alarming course. On the one hand, there is no effective protection of the huge forest diversity existing in the vast territory of the country – also affected by illegal crops and by the measures to combat them – and on the other hand, tree monocultures are promoted, even though they constitute a direct cause of deforestation and forest degradation in Colombia and worldwide. Additionally, laws are passed "tailor-made" for Smurfit and large-scale "reforesters", while farmers – especially small ones – are left on their own at the mercy of market and atmospheric conditions. All this in a scenario dominated by a violent conflict at the national level, whose basic cause is precisely the unfair land tenure system existing in the country.

In neighbouring Venezuela, Smurfit has already faced severe conflicts with local communities provoked by its tree monocultures. In Colombia too, the activities

of Smurfit are generating increasing opposition, such as that being carried out by the Grupos Ecológicos de Risaralda, a province where the company already owns 10% of the land. In fact, it would be difficult to expect any other reaction than that of opposing an activity which, in order to benefit but a few, generates so many environmental and social impacts to so many people. (WRM Bulletin Nº 43, February 2001).

Colombia: Perverse economic incentive for oil palm plantation

Oil palm was introduced in Colombia in 1932, but its commercial development started by the end of the fifties. In the mid sixties there were over 18,000 hectares of that crop in the provinces of César, Magdalena, Santander and Norte de Santander. Palm cultivation expanded to other provinces and according to data published in 1995 by Fedepalma, by that year there were already around 130,000 hectares, being the country's main oil crop, mainly in the north, central and eastern zones of the country.

Currently, within the framework of the so called "Plan Colombia", the government aims at replacing plantation of illegal crops with oil palm and plans to plant up to 300,000 new hectares. These new plantations would be included under the agricultural plan of the present administration, disregarding both people and the environment.

As stated by the Peasant Association of the Valley of River Cimitarra (Asociación Campesina del Valle del río Cimitarra - ACVC), these plantations are a "a sad example of the coctail of large land owners with aspirations of efficiency or modernity who, pretending to be productive, not only don't abandon but reaffirm themselves in their exclusivist and monopolistic land use structure." And ACVC adds: "This system aims at increasing yield per hectare without altering the structure of land ownership at all. The new feudal lords talk about productive alliances, which are nothing but a sort of disguised sharecropping. These alliances are the legal remedy to elude their obligations with poor agricultural workers. As workers become partners, large land owners save the payment of wages and eliminate extra time and social contribution duties. According to the owners, they should remain in charge of the administration of these alliances, as they are "experienced". In other cases these "new" large land owners offer a plan to small and even medium sized land owners and producers for association with their monoculture projects through their indebtness under the sophism of the "peasant palm economy". The actual plan of the large land owners, which control the industrialization and commercialization processes, is one for getting a permanent raw material supply without establishing any labour link between them and the impoverished peasants.

Not even the declared objectives – such as a higher monetary incomes per hectare – will be achieved, since, as stated by ACVC, the actual aim is to increase the raw material supply.

(…) But the most irreversible damage will be the one caused to the environment and therefore to the people and fundamentaly to those with less resources. According to a study which was recently published by the Alexander Von Humboldt Institute (Instituto de Investigación de Recursos Biológicos Alexander Von Humboldt), "it is important to remember that palm plantations are not forests but uniform ecosystems which replace natural ecosystems and their biodiversity. This usually results in adverse social and environmental impacts: water production decreases; the soil structure and composition is modified; the abundance of fauna and flora and their species' composition are altered; the livelihood base of the native population is lost, and in some cases black and indigenous populations and peasant communities are displaced". Some examples of these have already been recorded, such as that of the western palm cultivation zone (Municipality of Tumaco), where the destruction of the primary forest is mostly associated to palm cultivation. Furthermore, as is widely known, one of the main causes leading species to enter into the higher endangered categories, is the destruction of their habitats".

The main aim of that study was to prove the "perversity" of certain incentives, such as the Incentive of Rural Capitalization (Incentivo a la Capitalización Rural - ICR), which are claimed to "achieve peace" and are promoted within the framework of the Plan Colombia. "The ICR was chosen for the late yield crops as a potentially perverse incentive, as it is directly oriented to the expansion of oil palm platation wherever within the country, disregarding considerations of biodiversity conservation. The ICR is a condonation of the credit granted by FINAGRO to farmers and cattle-ranchers and could reach 40% of the total credit, depending on the type of producer involved."

(…) The model used in this study allowed to "simulate the possible effects on biodiversity of applying the ICR in two palm producing areas: north and west" and to "estimate the optimal areas which would be required by the producers". It also enabled the calculation of the Indicator of Biodiversity (IBD) which allows the comparison of the present biodiversity level with the level those potentially required areas would have if they were actually turned into palm cultivation". The results indicated a biodiversity loss ranging from 21.8 and 39.15% in the various areas analysed.

But above all the environmental and social impacts which may arise from an expansion of oil palm monocultures, it is unbelievable that the "solution" offered by the Plan Colombia to the peasants currently growing illegal crops should be the plantation of oil palm. A viable solution will only be such if illegal crops are replaced by others with similar income levels of the ones they presenty receive and this is something which for sure will not be provided by oil palm cultivation. The current price for oil palm is already not profitable and the increase in the area devoted to oil palm plantations will further reduce it. This is therefore a

new deception, which will only render higher profits for the Colombian palm oil companies, while its impacts will be suffered by people and the environment. (WRM Bulletin Nº 47, June 2001).

Colombia: Anti-trade union policy in oil palm plantations

The more that is planted, the more rights that are lost. In Colombia, there are approximately 170,000 hectares of oil palm plantations. Testimonies by a delegate of the palm sector workers' organisation, connected to the Bucarelia and Las Brisas Palm Oil companies, denounce the poor working conditions in the oil palm plantations in the department of Santander, in addition to pressure and incentives to weaken the trade unions in the sector. Oleaginosas Bucarelia has 4,700 hectares and the other company some 2,800, all located at Puerto Wilches, Santander.

According to the words of this worker: "The companies' strategy to weaken and eliminate the trade unions is based on voluntary retirement plans, paying compensation higher than the compensation granted by law. Many companions have left the companies and the trade union too, but return to work in the sector under conditions imposed by the companies through cooperatives. The companies' policy aims at reducing conventional conquests reached over 20 or 30 years of struggles. Some of the company authorities have commented that the companies in which the workers are organised as unions are less competitive and furthermore, the workers are reluctant to accept the working conditions these companies want to impose – conditions attacking the workers health and dignity.

Finally, what they are suggesting is that trade union organisations should disappear. Another modality promoted by the companies is that the peasants become holders of palm plots, thus saving labour costs. In this way, these peasants must sell the raw material to the companies at the price they impose. People earn less and do not have any social security coverage.

By avoiding worker organization, the companies also avoid complaints over low salaries, and over one of the greatest problems facing the workers: the abominable working conditions. "For example, as the palm grows older it also grows taller and therefore the conditions for harvesting the bunches and pruning the trees make accidents likely to occur. The workers carrying out the harvest complain about pains in their spine and accidents are common when they are hit by the leaves that have many thorns on them. Moreover, the plantations are sprayed to control pests and diseases and the impacts on the environment and on health caused by these products are unknown."

All the above, and in particular the companies' policy to try to weaken the trade unions by means of workers employed through cooperatives and individual

contracts, have led SINTRAINAGRO, the largest agricultural workers' union in the country, to establish the need to unify the unions in that sector, in order to preserve the conquests achieved so far and to seek the unionisation in those companies that do not yet have a trade union. Thanks to workers' organisation in Bucarelia and Las Brisas, some collective agreements have been signed and the workers in some of the cooperatives are now demanding better labour conditions.

It should be noted that in this article we are only referring to the social impacts of oil palm cultivation, but to these should be added the serious environmental impacts of the large-scale monoculture model, repeated in all the regions and countries where they are installed, and among them, the impacts on biodiversity, soil and water should be mentioned. (WRM Bulletin Nº 65, December 2002).

Colombia: Oil palm plantation project threatens biodiversity in the Choco

The Choco region (an area of 75,000 km2 on the Colombian Pacific coast) is a strategic ecosystem due to its natural and cultural diversity and shows the greatest concentration of biodiversity in the world as regards the number of species per hectare. Of the original area of heterogeneous forests, only 44% are still standing, mainly because of colonisation, expansion of the agricultural frontier, cattle-raising and commercial logging.

The Lower Atrato, in the basin of the River Atrato, which is part of this bio-geographical region, is in a state of alert. The People's Defence Office, in the document "Timber exploitation and Human Rights, Lower Atrato-Choco" (Explotación Maderera y Derechos Humanos Bajo Atrato-Chocó), expresses the profound concern of the members of the community councils of the Lower Atrato (Cacarica, Jiguamiando and de Curvarado, among others), over an oil palm plantation project, to be implemented in the Riosucio Municipality.

This project is to be undertaken by the Urapalma S.A. Company which is not a member of the concerted agreement on cleaner production, signed by the Fedepalma Federation, the Ministries of the Environment and Agriculture and various environmental companies.

The objective of the project is to plant 20 thousand hectares of oil palm trees (the Ekona and Ekona X lame varieties) in the Departments of Choco and Antioquia. The first block will be 9 thousand hectares, 6,500 belonging to Urapalma and 2,500 belonging to Asopalma (this latter company promoted by the former, in which peasants from the region are associated, and have been assigned a 5 hectare plot each.

A subsequent stage foresees the installation of an oil extraction plant in the zone for the production of 35,500 tons of raw palm oil in five years. Presently, they are in the process of setting up associations of inhabitants in the zone in

Paravandocito and Munguido to sow 380 hectares. This initiative has been supported by various different bodies, such as the Ministries of Agriculture and Development, the Agrarian Bank (which allocated a loan of up to 80% of the direct costs of the operation during the unproductive stage), FINAGRO, the Investment for Peace Fund (which provides resources to the Rural Capitalisation Incentive aimed at the cultivation of oil palm) and the Government of Antioquia.

There has been no consultation process with the ethnic communities, no formalities regarding environmental viability have been undertaken, no permits for water concession or forest use have been requested from the environmental authorities having jurisdiction in the Departments of Codechoco and Corpouraba, thus ignoring the environmental and ethnic regulations applying to this zone.

Para-military groups acting in the region have served the purposes of the project, for which collective community landholding of the territories in the zone is an obstacle. In this respect, the assault against the guerrilla not only obeys a military strategy, but also an economic one for the private sector. The Inter-church Justice and Peace Commission has denounced that it is evident that no state intervention is taking place to structurally face concealed armed action through para-military forces, while the community rights of Afro-descendents are ignored and the illegal sowing of oil palm continues to enjoy armed protection.

As in so many other places in tropical regions, natural and cultural diversity is running the risk of disappearing to be substituted by large-scale monoculture tree plantations that only serve company interests, aimed at production and marketing of palm oil. And just like so many other cases, resistance to companies appropriating land is growing increasingly strong. (WRM Bulletin Nº 70, May 2003).

Costa Rica: The dangers of tree monoculture "forests"

As many other Southern countries, Costa Rica is facing the problem of the expansion of tree monocultures. Especially in the Huetar Norte Region, the establishment of industrial tree plantations has been a complete failure during the last 20 years. After having spent US$ 10 million in such programmes, nowadays more than 70% of those plantations are in a bad state and have produced far below the expected rate. At the same time the potential of the secondary forests and its rich biodiversity – which concerning trees comprise more than 150 species – has been neglected.

In spite of the semantic efforts of plantation promoters to call them "planted forests" and to call the activity "reforestation", the fact is that plantations are not forests and that these plantations result in a number of social and environmental impacts. Industrial tree monocultures imply the occupation of vast territories and concentration in land tenure, and the displacement of small and medium

peasants. In the case of Ston Forestal – a subsidiary of the giant Stone Container – about 300 families had to leave their lands in southern Costa Rica, which were then occupied by gmelina tree monocultures. Additionally, these plantations conspire against the promotion of traditional knowledge in forest management and agriculture. The Melku indigenous people, in the northern region of the country, saw how 40,000 hectares in their region were occupied by tree monocultures with subsidies from the State, while they did not receive any support to recuperate the "mastate" (Poulsenia armata), a species which resulted almost extinct due to the pressure of logging, and which was the basis for local craftwork.

Social impacts have gone hand in hand with negative environmental impacts. Ston Forestry is facing legal prosecution for causing the dessication of wetlands, while gmelina monocultures in the Osa Peninsula are considered responsible of a potential negative effect on the population of parrots and guacamayos in the nearby Cordovado National Park. Oil palm plantations implemented by the firm Palma Tica are expanding in the wetlands of the southern area, in spite of the efforts of local environmental activists, who have even sued the company. Teak monocultures promote soil erosion through the concentration and quick release of large raindrops from their leaves. In the northern region it has been proved that eucalyptus monocultures reduce the flow of water into the aquifers.

In spite of the above, the Costa Rican government is strongly supporting the inclusion of tree plantations in the Clean Development Mechanism of the Kyoto Protocol. How many more impacts will people and the environment need to suffer to finally reach the obvious conclusion that plantations are not forests? (WRM Bulletin Nº 39, October 2000).

Costa Rica: Japanese dollars to promote monoculture tree plantations

The new President of Costa Rica, Abel Pacheco would seem to have good intentions regarding the environment, but at the same time, shows some gaps in knowledge of the native tree species of his country.

In fact, such contradictions became evident on 2nd June, on occasion of a ceremony at the Presidential Residence, celebrating the donation by the government of Japan (through the World Bank), of US$300,000 aimed at promoting commercial tree plantations.

During the ceremony President Abel Pacheco stressed the need to fight for native species and halt plant "Nazism." It would seem that the President was not aware that the species to be planted – Gmelina and Teak – are not native, but come from Asia. In fact the project funded with the Japanese government donation, is aimed at planting 50,000 hectares a year of Gmelina and Teak, for a period of ten years. That is to say that the plan is to cover a small country like Costa Rica with no less than 500,000 hectares of monoculture tree plantations.

The donation is accompanied – as usual – by the corresponding environmental, social and economic discourse to justify this type of forestry "development." The very name of the project (Project for the Reactivation of Commercial Reforestation in Costa Rica – REFORESTA), transmits a deceitful message that "reforestation" is taking place, when in fact it is really "monoculturisation" that is being carried out.

Furthermore, Constantino González, the chairman of the fund managing the donation has stated that this activity will generate between 20 and 30 million dollars over the next ten years and will make it possible to supply local demand for wood and eliminate pressure on forests and lessen illegal logging. All this sounds good, but does not agree with the true situation, either in Costa Rica or in any other part of the world.

It is sad that a country such as Costa Rica, possessing a very rich forestry diversity, has entered into the Japanese game of becoming a supplier of cheap wood for this and other insatiable markets of the industrialised world, instead of concentrating on rehabilitating its forests destroyed by other "development" processes (such as cattle-raising) which, in the past have resulted in environmental and social destruction.

We would very much like to see the new President of the Republic "fight for native species" and face "plant nazism" promoted in this case, by the government of Japan and its intermediary, the World Bank. We hope to see this. (WRM Bulletin Nº 60, July 2002).

Costa Rica: The slow death of large-scale monoculture eucalyptus plantations

At the beginning of the nineties, the introduction and cultivation of eucalyptus, a species originating in Australia, was promoted as a major timber business. However, at the end of the decade, this model of large scale tree monoculture has finished by causing big economic losses to the State and to a large number of farmers.

The following report by Tierramérica reaffirms our position that alien species cannot be introduced on a large scale without a prior study on how they will react in an environment that is foreign to their nature and above all, on what environmental and social impacts they may cause, when all these efforts and incentives could have been devoted to investigate and promote the sustainable use of native species.

"According to the Ministry of Environment and Energy, between 3,800 and 4,000 hectares planted with eucalyptus have been lost, a species alien to tropical biodiversity, that has ruined many families." "Nature is wise and does not make

mistakes," were the words of Luis Quiros, an engineer and specialist from the Ministry. "We cannot force species from other latitudes to adapt to our conditions," he added.

Quiros, the head of the San Jose sub-region, commented that Latin America has suffered from a series of fashions over the past few decades, disseminated by international specialists. "Many organisations come along and recommend what we should sow, on the basis of what has been successful in the countries of the North, but do not take into account the pests and local conditions in the tropics," he affirmed.

The eucalyptus, a fast-growing tree with a great capacity to absorb water, was promoted as the new forestry species at the end of the eighties and beginning of the nineties, to take the pressure off deforestation of native forests.

The State established economic incentives for owners of farms planting eucalyptus. The purpose was to use its wood to make furniture and laminated panelling. Everything went well over the first three years, but during the fourth year the trees stopped growing and started suffering from a disease that the local inhabitants call "slow death." "We dedicated a lot of work to the project, but all is lost" the 47 year old farmer Ronald Rodriguez told Tierramerica. He had planted 100 hectares of trees in 1990.

Scientists discovered that the soils were not appropriate for eucalyptus, given that the roots of this species cannot penetrate certain depths because of the clayey nature of certain plots. This has favoured the appearance of fungus and later termites, which little by little did away internally with the bark of the trees, and therefore these dried up.

"In all, with what the State gave me and with what I invested, I believe that only in my case I lost close on 500 thousand dollars. There were families that were left very badly off as they thought that eucalyptus would be their life project," added Rodriguez.

Now, scientists, producers and environmentalists coincide in the moral of the eucalyptus: research and prior experience is required before massively promoting an alien species. "Sufficient research is required before embarking producers and peasants in these projects, as in the end they are the ones that most suffer," Alexander Bonilla, a geographer and environmentalist, stated to Tierramerica.

Other specialists state that it is necessary to make better use of local species, as otherwise one falls into a sort of "ecological inferiority complex" (prefering foreign over native species) through the promotion of alien species without prior research. (WRM Bulletin Nº 65, November 2002).

Ecuador: Oil palm in the devastated Garden of Eden

In Ecuador, the relaunching of oil palm cultivation has given rise to different reactions. In a long interview published by a widely read newspaper, for instance, the question was raised on whether oil palm plantation in the province of Esmeraldas would bring this poor Ecuadorian region nearer to paradise (*El Universo*, 11/3/2000), while at the same time other headlines stated that oil palm cultivation is destroying native forests and that thousands of hectares have been destroyed in San Lorenzo (*La Hora*, 18/5/2001).

Other press media, on the other hand, echoed the massive campaign carried out by the Association of Oil Palm Cultivators of Ecuador (Asociación de Palmicultores del Ecuador ANCUPA), aimed at cleaning up their image after having been blamed for the destruction of forests. In this sense, they claimed that oil palm monocultures constitute a development proposal which is subject to "environmental censorship" and put forward the question of whether oil palm cultivation was the hen that laid the golden eggs or the "bad guy" for the environment.

Salomón Gutt, manager of Palmeras de los Andes, one of the companies responsible for the most extensive destruction of primary forest in San Lorenzo, declared that "this area had been forgotten by God and the world" until they arrived. He also stressed the fact that the palm is environmentaly friendly and that "in the end a new palm forest emitting lots of oxygen is obtained. There is probably no other enterpreneurial project which can equal oil palm cultivation, where man and nature are completely intertwined."

The governmental sector also participated in the discusion. Hans Thiel, former Forestry Director and now undersecretary of the Ministry of Environment, declared that the Ministry sees the creation of alternative sources of employment by the palm companies as something positive, since the main pressures on natural forests arise from poverty, colonization and population displacements (sic) (*Diario Hoy. Blanco y Negro*, 6/5/2000).

Now, after several months have elapsed since the start of the accellerated implantation of these monocultures in Esmeraldas, several points of the present situation need to be highlighted:

- the process of land acquisition has resulted in the displacement of Afro-Ecuatorian population. Some of these people, fostered by palm cultivators, are now putting pressure on the territory of the Awa and Chachi indigenous communities, which have denounced the situation to the Ministry of Agriculture.

- almost 8000 hectares have already been deforested, most of them illegally, and areas within the Forest Heritage of the State has been illegally awarded.

- the companies have not submitted the necessary environmental impact studies to carry out these operations, and the sanctions and timely actions to stop

deforestation have not been taken, as can be deduced from the declarations of government officials.

As a result of environmental organizations' accusations, the Environment Minister had to make an appearance in the National Congress, where he explained that eight judicial actions had been filed on account of the clearance of native forest and that seven of them had already received a verdict. The situation of those cases would be as follows: in the case against Palmeras de los Andes, the proceedings were rendered void in the appeal, due to errors in the location of the land. Palesma was sentenced to pay a fine of 67.908 US dollars for clearing 250 hectares of secondary forest. Ecuafinca has been sanctioned with a fine of 10 minimun vital salaries. Palmeras del Pacífico was acquitted by the Forestry District of Esmeraldas due to lack of evidence. Aiquisa was sanctioned with a fine of 10 minimum vital salaries. The case against Agrícola San Lorenzo was rendered void by the appeals court due to administrative errors. Teobrama was sanctioned with a fine of 10 minimum vital salaries, and the same fine was imposed on Ales Palma (the minimum vital salary amounts to 4 American dollars!).

The activity of oil palm companies is also affecting the Forest Heritage of the State. Ales Palma has areas which "overlap" the Forest Heritage of the State in Ricaurte; Alzamora has similar "overlapping areas" in Corriente Larga; Palesema in Campanita and partly in the mangroves reserve Cayapas-Mataje, and Palmeras de los Andes, in Corriente Larga. Such illegal awards were made by the National Institute of Agricultural Development, INDA (Instituto Nacional de Desarrollo Agrario), which has been accused of being a "cave of thieves" by the Minister of Agriculture.

As a consequence of so many irregular situations, on March 14, 2001, the Constitutional Court decided in favour of the appeal filed by environmental organizations to immediately halt the further implementation of oil palm monoculture activities and to declare a state of environmental emergency in the province of Esmeraldas, demanding the initiation of legal actions to sanction those who have cleared forests and that the action of the Ministry of Environment be in accordance with the legal provisions in force.

Instead of abiding by the legal provisions, San Lorenzo's palm cultivators threatened to paralize activities and leave the zone, stating that the Ministry of Environment was not providing them with "sufficient guarantees". Former Minister of Environment Rendón insinuated that his resignation, which occured a few days after those declarations, had been the result of the oil palm companies' pressure.

Despite all the evidence regarding the illegal activities of oil palm companies and despite the ruling of the Constitutional Court banning further oil palm activities

in the region, the situation continues to be serious. The derisory fines imposed, the fact that no one has been indicted on the charges provided for those guilty of forest destruction, and that no civil servant collaborating with deforestation has been sanctioned for negligence, are proof of the above. Furthermore, the companies continue with their business in zones in which the State cannot even enter, by making use of their power and influence within the Government, and thus evading all sort of sanction and control.

The current devastation in the province of Esmeraldas arises from a logic of development that allows the destruction of forests to give way to monocultures; shrimp exports in exchange for mangrove destruction; wood extraction over biodiversity. And on top of it all, the green province of Esmeraldas is affected by the aerial spraying carried out during these months in Colombia to eradicate coca cultivation. This Garden of Eden should be urgently declared in emergency. (By: Ricardo Buitrón, WRM Bulletin Nº 47, June 2001).

Ecuador: Eucalyptus plantations in the Province of Esmeraldas

Eucalyptus Pacifico S.A. - EUCAPACIFIC is a new company set up at the end of 2000 to carry out a major eucalyptus plantation project on the Ecuadorian coast, in the Province of Esmeraldas, specifically in the Tonchigüe and Sua sector. This company, composed of transnational capital, has received approval by the Ministry of the Environment to carry out large scale plantations.

The comparative advantages regarding the price of land and labour, climatic conditions and the prospects of a very good output of wood, have encouraged foreign companies to invest directly here. This was made very clear by the recent launching of the largest eucalyptus plantation project in the country with the establishment of EUCAPACIFIC. This project unites two Japanese companies (Mitsubishi Paper Mills and the Sumitomo Corporation), Electric Power Development and Waltz International, that have merged to set up this company.

This project totally renews the production of wood for pulp and paper in Ecuador: here there will be plantations on the Coast (and not in the Sierra as before) of Eucalyptus urograndis (and not the traditional Eucalyptus globulus) over approximately 10,500 hectares.

The objective is to produce pulp and paper from eucalyptus. The wood will be converted into chips at the port of Esmeraldas and then exported to Japan. Presently the project is at an initial stage and plantation has started.

EUCAPACIFIC uses a green cosmetic discourse. The Company, both in its statements to the press and in private interviews, insists that it “does not want to have problems with ecologists” and on its desire to preserve native forests. They do not purchase land on which there are forests, or if they do, “before the

purchase they warn the owners that as a condition, they should not exploit small extensions of wood." They affirm that one of the major advantages of the project is the creation of "green forests" and the promotion of the idea that it is better to plant trees rather than to cut them down. Environmental issues are very present, at least in the presentation of the project.

Through this discourse the company seeks to achieve greater credibility and support for a project having as its major objective to gain money, obtaining the highest productive and financial profitability. The main idea of Mitsubishi Paper Mills is to have its own wood resources in Ecuador where it already carries out business with Expoforestal and the Sumitomo Corporation. The project provides "reserves" of raw materials for their industries at a very low cost. Expoforestal and the Sumitomo Corporation only hope to increase their profits in a sector that has already provided them with significant benefits. These three companies operate under a capitalist rationale of increasing their volume of business and profits, where environmental issues are merely green cosmetics. The objective of Electric Power Development is somewhat different. Through the project this company hopes to obtain "carbon dioxide credits."

The choice of Ecuador to promote eucalyptus plantations mainly corresponds to profitability objectives. EUCAPACIFIC recognises that it saw in the country and in the region of Esmeraldas, the possibility of obtaining a major wood production in a very short time, thanks to the climatic conditions favouring the rapid growth of trees. The location of the port of Esmeraldas near the land has made the place even more interesting. That is to say, it was the economic advantages offered by the region that led to the choice of location, and not the favouring of the development of a poor province in a country going through a crisis.

Furthermore, the choice of the Province of Esmeraldas is largely motivated by the low cost of land and the low wages paid to workers. The Company's policy is not aimed at improving labour conditions in the country, but rather at benefiting from this poor situation to obtain greater profits.

Although the company states that the exploitation of wood will generate sources of employment, in fact jobs are temporary, require scant qualifications and are poorly paid. There is no guarantee of stability nor long term job prospects.

Another point to be underscored is the role played by the Ecuadorian government in this matter. It is giving all its support to the project, to the extent that the company started plantation without having finalised and submitted to the Ministry of the Environment, the environmental impact assessment (which is obligatory when the plantation covers over 500 hectares).

As in so many other regions in the South, history repeats itself in Esmeraldas: the same model (single crop eucalyptus), the same stakeholders (transnational

companies and the government) and the same promises (that very shortly are shown to be false). Therefore, as suggested by the author of the study "we must be vigilant" vis-à-vis this new enterprise. (By: Ricardo Buitrón, WRM Bulletin Nº 48, July 2001).

Ecuador: The people said no to plantations at a ministerial meeting

In nearly all countries, large scale monoculture tree plantations have been imposed and implemented once the laws of each country have been changed in such a way as to enable national and foreign companies to obtain all kinds of benefits, such as direct and indirect subsidies, tax breaks and even soft loans and refunds for large-scale plantations. In this way, the companies have transferred their costs to already impoverished peoples in a business in which they only obtain profits, they freely use resources, good lands, water, cheap labour, and additionally, are protected by the law so no one can complain. In nearly all the countries, this has been achieved through a campaign of lies, deceiving governments and peoples and, if necessary, using methods that are not quite "democratic" such as threats, attacks and death to those who oppose them. Presently, in Ecuador, the companies are putting pressure on the government to take measures favouring them. However, the task will not be easy and the process is already showing some interesting aspects.

Contrary to what has happened in other countries, the Ecuadorian Ministry of the Environment took the excellent initiative of convening a Seminar/Workshop to formulate a "National Plan for Forestation and Reforestation", which was held between 28 and 30 April in the city of Quito. The objective of this workshop, according to the invitation sent out by the Ministry, is to formulate the plan "with comprehensive community participation," and to have the "active work of all the actors," "integrating socio-environmental and productive-economic components." In this respect, it would seem that fortunately, it will be different from other national forestry plans approved behind peoples' backs in many of our countries.

In most countries where so-called forestation plans have been imposed, these have been the product of foreign consultancies. Only as an example, it should be remembered that the Mexican National Forestry Plan was prepared by the Finnish consultancy firm INDUFOR, that the "Master Plan for the Thai Forestry Sector" was prepared by the Jaakko Pöyry consulting firm (also Finnish) and the Uruguayan Master Plan was prepared by the Japanese International Cooperation Agency. Participation was totally absent in these processes.

In spite of the Ministry's good intention of having the plan prepared in a participatory way, the business sector ensured limitation of such participation. The invited national and international conference panelists, mostly "experts" in large-scale monoculture tree plantations, were charged with the task of demonstrating the success of the model in countries such as Brazil, Chile and

Uruguay. Amidst half-truths, graphs and numbers, in summing up they were only able to state that in their countries the areas under plantation had increased and that some companies had made a lot of money. Accentuation of economic crises in those countries, conflicts with local communities and negative economic, social and environmental impacts resulting from the expansion of monoculture tree plantations, were shown in the presentation of the only international representation that was not convened by the business community, a member of the World Rainforest Movement, specially invited by the Ministry. Thanks to this invitation, the audience had access to documented information on the countless socio-environmental impacts of monoculture tree plantations (and of the countless local struggles against them in many countries of the world), absent from the presentations of the other panel members. This strengthened the participation of indigenous and peasant communities, which in Ecuador already have sufficient examples of the impacts of this type of plantation.

Paradoxically, the community members were not invited to present their points of view. Worse still, their voices were silenced on most occasions when they stated their disagreement or attempted to include changes in the "Workshops" on "Social Forestry and Agro-forestry Activities," and "Protection Forests." However, it was in the workshop on "Industrial Production Commercial Forests" (which should have been called "large-scale monoculture tree plantations") that all opposition was limited, censured and distorted by a moderator openly inclined in favour of tree monocultures.

The few representatives of Ecuadorian civil society, peasant and indigenous organizations participating in the event with the support of the local organization "Acción Ecológica," indignant over the manipulation that most of the participants were subject to, decided to prepare a declaration that was read a few minutes before the closing of the event, in spite of the opposition of Mr. Montenegro, company director of the logging company ENDESA / BOTROSA, who shouted that "although I do not know what the organizations are going to talk about, they have no right to the opportunity to do so, as they had enough time to do so during these three days" (sic).

In this declaration (the full text can be found on our web page at http://www.wrm.org.uy/paises/Ecuador/Declaracionde Quito.rtf) the signatories made public their gratitude to the Ministry of the Environment for the initiative but lamented the fact that the methodology did not facilitate participation and that the logging companies had monopolized the event, which had turned into a "forum to promote industrial plantations, ignoring complaints, arguments and proposals made by the communities which recognize industrial tree plantations to be one of the major threats to our native forests, our welfare and even our survival."

Furthermore, the declaration provided concrete examples in which large-scale commercial tree plantations in Ecuador have not been a development alternative,

but on the contrary, have caused problems such as deforestation, diminishing water sources, reduced soil fertility, biodiversity loss, appropriation of community lands, increased risk of fires and reduction of conservation areas.

The signatory organizations also considered that "a participatory process should be initiated, in which the communities take part with a view to preparing a National Plan on Conservation and Sustainable Management of Natural Resources, which would include conservation, regeneration and restoration strategies for forests and other natural areas, particularly for the protection of water sources, flora and fauna and soil, because plantations are not forests."

Summing up, the recent event held in Ecuador has been a very important experience. On the one hand because the government sponsored a participatory process opening doors to actors normally left out, such as indigenous and peasant communities. On the other, because it showed the manipulating powers of the logging sector, which took over the event and attempted to place it at the service of its corporate interests. Also because the sectors really interested in environmental conservation and in the equitable distribution of benefits from the sustainable use of natural resources were finally able to overcome the obstacles and make their voice heard. It is hoped that the government – that will surely be subject to enormous pressure by the logging company sector – will consider these positions and incorporate them in its policies to enable them to benefit the local communities and the country as a whole, while ensuring environmental conservation. (By: Ana Filippini, WRM Bulletin Nº 70, December 2002).

Mexico: Oil palm and the different meanings of Chiapas

Chiapas means much for many people all over the world. It is a synonym of Zapatistas and of Subcomandante Marcos, and these, in turn, of struggle for liberation and against injustice. However, for national and transnational corporations, Chiapas is still merely a synonym of cheap land, cheap labour, abundant resources and profit opportunities.

It is not surprising then that both the government and the company owners are promoting a number of projects that would harm the rich cultural and biological diversity of Chiapas. Among these is the promotion of oil palm monocultures by the government, opening the door to foreign investors, especially from Malaysia, who dominate the international palm oil market.

Oil palm still occupies relatively small areas (some 3,000 hectares), located in the municipalities of Acapetahua, Acacoyagua, Mazatán, Mapastepec and Villa Comaltitlán, which supply the oil extracting plants installed in Villa Comaltitlán and Acapetahua. However, the impacts are beginning to be perceived.

In the year 2000, the oil palm producers of Acapetahua already felt that they were "at the mercy of the voracity of buyers, the owners of the extracting plants,

who pay the price they choose per ton". According to the producers, the government – who was responsible for the introduction of the farming programme of this crop – should be responsible for regulating a guarantee price for the product. However, as the government did not take on that role, the producers, confronted with the prices established by the industrial monopoly were on the verge of bankruptcy. Since then, prices have dropped even more.

Why is there so much interest in oil palm production in Chiapas? The answer is simple: because it yields high profits, does not need much labour, requires few inputs, and it is low-risk capital for companies. In general terms, peasants provide land and labour; they do not own the production process, but just the fruit extraction. Cultivation of this crop also takes advantage of the cheap labour offered by migrants in the border region. It is the case of the day labourers of the Guatemalan border: those who are lucky earn 32 pesos a day (3.5 dollars), not including food, and even children are often hired. In addition, in some cases, the Guatemalan authorities have had to act to require the payment of unpaid wages to Guatemalan workers. This means that the workers are literally being exploited.

From the environmental perspective, the impacts can already be perceived. In fact, large scale monocultures imply the destruction of great extensions of forests of the region and their rich biodiversity. If government plans of allotting thousands of hectares to cultivation of this crop are carried out, it would also imply the occupation of great extensions of land belonging to indigenous and farmer communities of Chiapas. The oil palm production potential of Chiapas is estimated at 940,000 hectares in the Northern, Forest and Coastal zones. But since these areas are not empty, the promotion of this and other crops (such as eucalyptus), will result in the appropriation of vast areas currently used by local peoples.

It is thus clear that the promotion of this crop is not aimed at improving the life quality of local peoples, because among all the possible alternatives, it is one of the worst in terms of wages and employment generation. Furthermore, it endangers the survival of forests and of resources of the local people, through the occupation of huge extensions of land by palm monocultures. The local people have already begun to perceive it, which explains the increasing opposition of the Chiapaneca people, who are not willing to change their natural resources for false promises. (WRM Bulletin Nº 47, June 2001).

Mexico: Forestry Plan prepared by Finns

No one can doubt that the world is becoming increasingly mad. The Uruguayan forestry plan was prepared by the Japanese, the Thai plan by Finns and now, the "Strategic Forestry Plan for Mexico 2025" will also be prepared by Finns.

No matter that these supposed experts know little about local environmental conditions and even less about the culture and idiosyncrasy of the inhabitants. The recipe is always the same, be it Mexico, the Congo or Indonesia: "forests must be planted" (which, in the language of these experts, usually means monoculture eucalyptus plantations). The recipe includes the need to "promote" plantations (translated into normal language meaning that the people must subsidise the large companies so that the latter can obtain considerable profits). It also involves government sectors taking on the responsibility of making the recipe acceptable and putting it into practice.

The former governor of Jalisco, Alberto Cárdenas Jiménez, director of the National Forestry Commission (CONAFOR), seems to have taken on this role seriously. During an interview, published on 12 July in "*La Jornada*", he set out the need to "make forests." He announced that the sector's main work is established in the Strategic Forestry Plan 2025, "prepared with support from Finnish specialists." In fact the Finnish firm of consultants, Indufor did a lot more than simply provide "support": it prepared a final report that is now being used as a draft for discussion.

During the same interview, the director of CONAFOR pointed to the need for introducing legislative changes to implement the plan and announced that "special impulse will be given to commercial forestry plantations." The changes announced will certainly have something to do with the subject of land and with the subject of subsidies to plantations.

As may clearly be seen, the opinions of Mr. Alberto Cárdenas are based on the plan prepared by Indufor, so it is interesting to see what they say in this respect. In the chapter on forestry plantations, the plan states that "to promote the establishment of commercial and industrial forestry plantations, direct economic incentives have been designed and implemented which are presently being adjusted." This means that the major forestry companies are to be subsidised.

The report continues by stating that "Problems still persist in having access to the land, security of property rights, marketing and regulations..." generating "an unfavourable climate for investment." Of course this does not refer to access to land by peasants or indigenous peoples; the "problem" resides in how to enable the major forestry companies to legally ensure the use of hundreds of thousands of hectares of land for their plantations.

But perhaps the most remarkable thing about the report (in comparison with other very similar ones existing in other countries of the region) is that it brings up a doubt: "the uncertainty of social consequences, associated with large scale plantations, has produced a cautious attitude on the part of rural communities." This also requires translation: it means that the communities are opposed to large scale plantations as they suspect, and rightly so, that they will be established

on the lands that they depend on for a living. Similarly well founded are their suspicions that the plantations will generate very few jobs and that they are going to bring about impacts on soil, water and biodiversity, elements they also depend on for survival.

Returning to Mr. Alberto Cárdenas, he tells us where they intend to plant these single crops: "In the south and south-east of the country. But there is also interest in the states of Tamaulipas, Coahuila, Sonora, Chihuahua, Jalisco and Michoacán." In fact, they will be implemented in those sites having the requisites needed by the international paper industry. That is to say in regions where eucalyptus grow very fast, where land and labour are cheap, where there is abundant water for the installation of paper pulp plants, where environmental control is not very strict. Those who know the characteristics of the various Mexican regions, will thus know where they are considering establishing their plantations. (WRM Bulletin Nº 48, July 2001).

Mexico: Opposition to forestry plan prepared by Finnish consultancy firm

Opposition to the forestry plan prepared for Mexico by the Finnish consultancy firm, Indufor, has not been long in coming. The leaders of the five most important social forestry organisations in the country have made public their serious questioning of the so-called Strategic Forestry Plan for Mexico.

The leaders of these organisations have stated that the Plan stems from a "biased" assessment, which identifies the type of land holding as the main cause of deforestation "which would seem to suggest that the solution to deforestation is privatisation of woods and forests."

And of course, the leaders are right. In spite of all the proof shown to the contrary, the foreign consultants continue insisting on the recipe of privatisation as the solution to all ills. In this case, it will imply appropriation by major transnational companies of lands presently occupied by small-scale farmers, peasants and indigenous peoples.

Contrary to what the Finnish consultancy firm suggests, for the social forestry organisations, "the main cause of deforestation is a policy subordinated to agricultural policies, where traditionally the woods and forests have been a sort of territorial reserve for the expansion of agriculture and animal husbandry." This is no secret to anyone in Latin America, although it would appear to be so to the foreign "experts" responsible for this analysis, correctly considered as "biased" by the local organisations.

Linked to the above, the leaders also criticised the fact that the plan promotes private initiative as the driving force for forestry development and does not take into consideration the communal and small land holders (owners of 80 percent of the country's woods and forests) in preparing and implementation of the

plan, nor does it contain any mechanism for actions in concert with those forest managers.

Paradoxically, it seems clear that the Strategic Forestry Plan for Mexico is not a plan for the Mexicans living in the forests of Mexico. On the contrary, it is a plan prepared behind the backs of the owners of the forests, aimed at benefiting external agents comprised by major transnational groups. Under such conditions, it is only to be expected that opposition to the plan will continue to grow and extend to all the social sectors that would be affected should it be implemented. (WRM Bulletin Nº 49, August 2001).

Mexico: The door is open to "neo-liberal" tree plantations

Mexico has joined a model giving priority to the needs of transnational industrial capital demand, aimed at exportation. The environmental policy and rights of the indigenous and peasant peoples are subordinated to this demand.

Within this scheme, the plantation of thousands of hectares of cellulose trees, such as the eucalyptus, and fast-growing species such as teak, melina, pawlonia and pink cedar is considered. According to the words of the director of the National Forestry Commission (Conafor), Alberto Cárdenas Jiménez, the changes made by Congress to the Forestry Law last December are very "positive" as "the matter of plantations was de-regulated to the utmost." This means that more and more doors will be opened to the mass entry of the eucalyptus, "the perfect neo-liberal tree," according to Jaime Avilés, a columnist for the Mexican newspaper "*La Jornada*," because it grows quickly, kills everything around it and generates great profit for very few people.

The Puebla-Panama Plan (PPP) seeking to turn Mexico and Central America into a major free trade zone, with innumerable "maquiladoras" (sweatshop assembly plants) and "land channels" to increase inter-oceanic trade, includes large-scale monoculture tree plantations of this type of tree as one of its components. Some of these plantations will supply timber and cellulose. Others will serve as "carbon sinks," another one of the transnational companies' tricks to avoid having to reduce contaminating gas emissions from cars and major industries in the so-called "developed countries" which have caused global warming.

As part of the Kyoto Protocol's Clean Development Mechanism, carbon sinks give carte blanche to countries and industries, enabling them to continue contaminating, provided they finance "ecological" projects in the Third World, which supposedly compensate for the contamination they cause. Among these projects is the plantation of trees. Some would think: what is the matter with this? Aren't ecologists badgering for trees to be planted? The WRM has already given lengthy explanations about the major difference between forests and large-

scale monoculture tree plantations – which have the same ecological problems as agricultural monoculture plantations.

According to Professor Andrés Barreda, from the National Autonomous University of Mexico, industrial tree plantations "in fact are not the complex ecosystems we generically call forests, but strict monoculture plantations located on gigantic productive areas (of tens of thousands of hectares) that are associated to the necessary eviction of the rural population, unemployment strengthened by the mechanisation of forestry production, the intensive use of fertilisers, pesticides, weed-killers, etc., the development of plagues, the depletion and contamination of water tables, the destruction of biodiversity." With carbon sinks, "transnational companies are directly introduced into community forest management processes. The communities are involved in a major manipulation on a world-wide scale, whereby it is the transnational companies themselves that are contaminating and that most threaten to continue doing so, without solving any of the real causes of global warming, dressing up as fairy god-mothers to support the pauperised peasant communities."

In the present process of privatising biological wealth, transnational companies are dangerously installing themselves in key biological corridor zones. It is thus that another environmental component of the Puebla Panama Plan is the Central American Biological Corridor, linking hundreds of natural protected areas in the region to form a single conservation zone. Civil society, environmentalists and indigenous groups have denounced the Corridor as a public relations manoeuvre to legitimise the Puebla Panama Plan with the environmentalist sector. (WRM Bulletin Nº 67, February 2003).

Nicaragua: The adoption of the "Chilean plantation model"

Nicaragua is still considered the country having the largest forest cover in Central America, and that with the most extensive primary forests. During the decade of 1980 forest destruction was temporarily halted by the war which was taking place up in the mountains, which forced many indigenous and peasant communities to abandon the region.

In 1994 the signature of the First Structural Adjustment Programme meant a boost for the commercial opening of the country. Concessions for the exploitation of natural resources were granted to foreign and national firms. With the excuse of promoting investments and generating jobs forest concessions were granted, and now the government is facing a lawsuit at the Interamerican Court for Human Rights presented by the indigenous communities.

In late 1996 the government submitted a draft forestry bill to the National Assembly, resulting from a consensus reached between several sectors. Nevertheless, there was a lack of will by both government and parliament to

pass the Forestry Law. Instead a Forestry Statute was approved, but lacking a general legal and conceptual framework.

During the last years, Nicaraguan forests have been at the mercy of the voracity of the domestic and foreign markets. Responding to pressures at the national and international levels, in 1998 the country's President issued a decree establishing a 5-year moratorium for the extraction and export of fine woods.

The described situation showed the absence of a legal framework and a policy regarding forests and the forestry sector. Nevertheless in 2000, under the pressure of international financial institutions, the Agriculture and Forestry Ministry, together with the Commission for the Environment of the National Assembly, hired consultants to elaborate a new Draft Bill for Forestry Development and Promotion.

The resulting draft bill confirms the statements previously made by the ministers and the president of the Commission for the Environment, who had expressed that the law would follow the Chilean model, since according to them this country has had the best experience in this regard. Last July the proposal was submitted to different sectors in a "consultation" process, who have been working on it since.

Nonetheless, almost no-one appears to be concerned about the fact that the law will include plantations as forests, nor about the incentives aimed exclusively at the forestry industry, nor about the fiddlingrepresented by the clean development mechanism. There was only one consultation with indigenous communities, whose viewpoint was that "this law is useless; we need another one that protects the forest and that does not sell everything."

Nicaragua still has no experience on tree plantations, except that of trials and wind-breaks. Eucalyptus is rejected by peasants, who say that it depletes water resources and are demanding the use of native species in reforestation projects.

Even though for unknown reasons the government and the Assembly are urged to pass the law during this year, this will not happen until March 2001. The reason for this is probably that the authorities and members of parliament are trying to convince themselves about the advantages of the Chilean model. (WRM Bulletin Nº 39, October 2000).

Nicaragua: US United Fruit, oil palm and forest destruction

The history of oil palm in Central America is closely linked to the history of the economic group United Fruit. Preston and Keith, two US businessmen who, for 20 years since 1870 concentrated on planting and exporting bananas to the USA, merged their companies in 1899 to found the United Fruit Company (UFCO), as a means of diversifying their plantations and increasing their profits.

In 1901, the Guatemalan dictator Manuel Estrada Cabrera granted UFCO the exclusive right to transport mail between Guatemala and the USA. The Compañía Guatemalteca de Ferrocarril (The Guatemalan Railway Company) was created, as a subsidiary of UFCO. The company was allowed to buy land at cheap prices, it was granted subsidies, and with some variations, it obtained in many Central American countries the control of transport and communications, which also allowed it to collect money for every product transported from one place to another. This was the entrance door for UFCO's large investments in Latin America. In few years, the power of UFCO, also known as "yunai" or "La Frutera" (the fruit company), stretched over several countries.

During the first two decades of the twentieth century, the consolidation of the banana business in Honduras was hindered by serious political problems, and in Costa Rica, the coffee grower oligarchy showed a strong opposition to the banana business. In 1923, United Fruit created a research department and an experimental station (both of them in Honduras), with the objective of introducing and assessing new tropical crops in Central America.

The appearance and dissemination of Fusarium wilt in banana plantations forced UFCO to abandon large farming areas. Part of those areas were used to plant oil palm.

In the 1940's, the first oil palm plantations were established in Nicaragua in an area of approximately 1,800 hectares, in the municipality of Rama, on the Atlantic Coast. The location of the plantation allowed good adaptability and profitability. However, due to armed conflicts in the area, the exploitation was discontinued and its development as a commercial crop was disregarded.

Another pilot project considered experimental, was installed in the southern area, near the border with Costa Rica, in Rio San Juan. All this region is considered of high potential for this crop.

After 1942, UFCO accumulated considerable experience and information about the extraction and processing of oil from oil palm. Evaluation studies were carried out by area, and many samples were sent to the USA. The results were so promising that UFCO began its commercial plantations.

In 1962, UFCO began a period of strong incentive to this crop, and the decade of the sixties was characterized by the adoption of a number of measures to expand plantations. In 1965, UFCO acquired the NUMAR group in Costa Rica for processing and marketing vegetable oils – as a means of vertically integrating its business – and in 1967 it established processing units in Honduras. In 1969, it bought Compañía Aceitera Corona in Nicaragua.

In 1970 United Fruit changed its name to United Brands after merging with another company, leaving behind a name linked to a long history of political and

social manipulation. However, for the seasonal workers in the fields life continues being harsh. Working conditions are physically dangerous, work is seasonal and the toxic chemicals used in the crop are a permanent hazard.

The oil palm industry has been in permanent expansion in the main tropical regions of Central America, and oil palm is nowadays one of the main crops in those areas where it is established. However, this expansion has not been exclusively carried out by the companies. In Nicaragua, in the eighties, two experimental stations were established in the humid tropical zone in the same area of Rio San Juan through the Fondo Simón Bolivar – a multilateral voluntary fund.

At present one of these stations has been abandoned and has no link with the local communities, while the other one has been reactivated for commercial exploitation, including the instalation of an industrial facility for raw material processing. At a Seminar on Pesticides, Ecology and Scientific Research in the Xolotlán, Cocibolca and Río San Juan Lakes held in 1999, local organizations and communities settled in the south of Nicaragua, denounced the direct contamination of water courses as a result of the oil plant activity, and the consequent death of species of the local fauna.

For the oil palm to reach high productivity levels, high sun radiation levels are also required, which has generally led to the deforestation of vast regions of primary forests. Until now it has not been possible to force the company to take on its responsibility for the damages denounced by the communities.

The accusations were swiftly followed by threats. “25 year-old Genoveva Gaitán Matamoros from San Miguelito, says that Mr. Juan Reyes threatened to shoot her if she did not stop going around with those environmentalists, who did not let him earn his money. And he earns it destroying our forests and our lives, because the forests mean life for everyone: people and animals.” (WRM Bulletin Nº 47, June 2001).

Uruguay: What is FSC certifying?

In Uruguay, all forests are protected by law and their exploitation is forbidden unless expressly authorised by the bodies in charge of ensuring their protection. Therefore, certification in this country is totally unnecessary to ensure forest conservation. However, it is enough to enter the FSC web page’s “certified forest list” to discover that there are 75,000 hectares of certified “forests” in this country. Of course, on looking into details, one learns that in all cases these are plantations and not forests.

Beyond our total discrepancy with the pretension of considering plantations as “forests,” it is interesting to show some of the contradictions between certification of these plantations and FSC guidelines. These contradictions arise on reading

the two first lines of the introduction to the FSC principles and criteria, where it is stated: "It is widely accepted that forest resources and associated lands should be managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations."

Given that FSC equates plantations with forests and that principle 10 (plantations) clearly establishes that "Plantations shall be planned and managed in accordance with Principles and Criteria 1 – 9, and Principle 10 and its Criteria," it becomes obvious that what is stated in the introduction is applicable to plantations.

The question is then: Do the plantations in Uruguay (and in particular certified ones) meet the "Social, economic, ecological, cultural and spiritual needs of present and future generations"?

Although this article will address the issue of social and economic needs, it should be pointed out that large-scale monoculture plantations in Uruguay clearly impact on its ecology. In fact, in this country, plantations are mainly established in grassland ecosystems, resulting in their destruction and that of their associated fauna. Therefore, it is absurd to think that they can meet the "ecological needs" of the country. This process is comparable to those we all denounce in the tropics (substitution of forests by grasslands), but the reverse: the substitution of native grasslands by "forests."

This stated, we shall focus on the social and economic needs. The plan promoting afforestation launched in 1988 by the government, promised the generation of jobs and entry of currency because of the increase in exports of forest products. To achieve these objectives, the Uruguayan State made considerable investments, involving direct subsidies, tax exoneration, soft loans and investment in infrastructure. By the year 2000, the State had assigned US$69 million to the sector under the form of direct subsidies. The total of tax exonerations (on the area planted and goods imported) amounted to US$ 56 million, while soft loans were estimated at US$55 million. Finally, investment in infrastructure amounted to US$ 234 million. Summing up, Uruguayan society as a whole has contributed 414 million dollars to forestry development. What benefits has this society received?

Regarding job generation, the result is disastrous. Of all agricultural and stock-raising activities, extensive sheep and cattle raising has always been considered in Uruguay as the worst activities in terms of the amount of jobs generated per hectare. This is no longer so: afforestation has shown itself to be even more negative.

According to data from the 2000 agriculture and livestock census, the number of permanent workers per thousand afforested hectares is 4.49. Cattle-raising for meat generates 5.84 permanent jobs for the same area of land while sheep-raising provides 9.18 jobs. These, together with mechanised rice production

(7.75) are the lowest figures. At the opposite extreme we find production for self-consumption (262 jobs per thousand hectares), poultry-raising (211), vine-growing (165), horticulture (133), and pig-raising (128) while in the middle come dairy cattle production (22), machinery services (20) and cereal or industrial crops (10).

Summing up, over a total of 660,000 hectares, afforestation has generated 2,962 permanent jobs. If we consider that plantations have displaced other agricultural and cattle-raising activities, and that all the other activities generate more jobs than afforestation, we reach the conclusion that this activity has led to a net loss of permanent jobs in the agricultural and stock-raising sector. In fact, in the hypothesis that the area under plantation continued to be occupied by cattle or sheep-raising, in the first case, jobs would have amounted to 3,854, while in the second, they would have amounted to 6,058. It is clear then that the remedy has been worse than the disease and that afforestation has contributed to rural migration. If we add to this the poor working conditions (low salaries, scant security, poor food and lodging, difficulties in organising as a trade union), informal jobs (implying no social security), and seasonal work, it is clear that afforestation in no way meets the social needs of the rural population.

In terms of economy, the situation is not much better. In fact, afforestation promised to increase entry of currency, but 80% of the exports in the forestry sector is composed of roundwood, while the remaining 20% is sawmill timber. That is to say, 80% of what is exported does not generate a single industrial job, while the other 20% consists of a minimum transformation of raw material that does not generate any important number of jobs either.

In turn, income from these exports does not imply any important entry of currency if compared with the area of land occupied by the sector. The forestry sector is annually exporting values of between 35 and 45 million dollars, placing it in one of the lowest positions within the export basket (annually totalling between 2,000 and 2,500 million dollars). If compared to rice, (a sector that also generates few jobs per hectare), we see that an average area sown of some 150,000 hectares (that is to say 4 times smaller than the area occupied by the forestry sector), generates some 200 million dollars from exports (that is to say, 5 times more than the amount obtained by the forestry sector). This means that afforestation does not achieve the objective set out in the introduction to FSC principles of “meeting the economic needs” of the country.

The questions asked by the Uruguayan environmental movement are: how is it possible for FSC to certify these plantations that do not fulfil any of the requisites they themselves have set out? How is it possible that the environmental and social NGOs participating in FSC allow this to happen? How is it possible that they do not realise that each certified plantation is weakening the campaigns we undertake to avoid our environment to continue being destroyed?

It is evident that something is wrong and we hope that the members of FSC will turn themselves to finding solutions, both for the good of the people and of the environment of countries such as Uruguay, and for ensuring the credibility of the certification system itself, that was created to ensure the protection of forests and not to give a coat of "green" paint to socially and environmentally unsustainable monoculture tree plantations. (By: Ricardo Carrere, WRM Bulletin Nº 64, November 2002).

Uruguay: Inhuman working conditions at a Chilean forestry company plantation

The forestry plan promoted by the Government – based on large monoculture tree plantations of eucalyptus and pine – promised large profits to the country, among which employment generation. Not only has this objective not been accomplished, but it has also been seen that the scant employment generated is usually temporary and under working conditions that in general leave much to be desired. The events that took place at the beginning of this month are a clear demonstration of what environmental organizations have long been denouncing. The big difference this time is that the complaint was lodged by a Government official.

Following a complaint, the National Customs Office carried out an inspection of a forestry company in the Department of Rivera (in the northeast of Uruguay, bordering with Brazil). The forestry company in question turned out to be Forestal Cono Sur S.A., owning some 26,000 hectares of pine plantations in Uruguay. However, 99% of its shares belong to Forestal Cholguán, which in turn is a subsidiary company of the gigantic Chilean corporation, Arauco that in its home country owns 906,033 hectares of plantations, and against which the Mapuche people have undertaken a bitter fight because the company has appropriated much of their territories.

The complaint was related to the existence of forestry machinery presumably in breach with the customs, that is to say, machinery that had entered the country without paying the corresponding taxes. Great was the surprise of Victor Lissidini, National Customs Director, when he reached the establishment. In addition to confiscating machinery for a value of approximately US$ 300,000, 40 mattresses were found, thrown on the floor, and following a brief reconnaissance, he was able to see that fifty Brazilian undocumented labourers worked there, living in inhuman conditions.

The labourers had been hired by a Brazilian company, which in turn had been hired by the Chilean company to carry out plantation work. The Customs Director explained that the report by the writ-servers from Rivera, set out that the workers slept on the floor, eat leftovers, dressed in rags and in several cases had injuries that had not received adequate medical treatment. "They were living practically under a regime of slavery," he stated.

According to press reports, people from the area have affirmed that it is normal for large companies, mainly engaged in tree plantations, to hire Brazilians to work as "moonlight workers" (that is, without complying with the labour regulations in force), keeping them under miserable conditions.

These working conditions are to be found in the framework of companies owning plantations that carry out most of their activities (from plantation to harvesting) almost exclusively through hiring forestry service companies. These companies are frequently of a hard to control and informal nature, in which one of the most widespread forms of competition is tax evasion and non-compliance with labour laws. Forestry service companies are gaining increasing protagonism and are key to "cost-efficiency."

Given that, in spite of being strongly subsidised, forestry activities do not give rise to considerable profits (the market price of logs that the country exports is very low), in order to make them profitable the forestry companies establish very low prices when outsourcing. The outsourced companies – which obviously want to make their own profits – transfer these low prices to the last link in the chain… the worker.

Although it is true that some forestry companies do control the quality of the companies hired, this is rather the exception than the rule and in general these are companies which have an image to look after and to cultivate, or which have comparative advantages on the international market.

Who is responsible for this state of affairs? There is no doubt that a large part of the responsibility falls on the companies, which in their eagerness to obtain profits do not hesitate to submit workers to inhuman working conditions. However, in the end, it is the State that must establish and enforce compliance with the rules of the game. The situation shows that the State so far has been an accomplice to the violation of labour legislation.

The former president of Uruguay, Luis Alberto Lacalle (who was a great promoter of plantations) already fostered this activity, highlighting the cheapness of labour in this country. The President of Uruguay, Jorge Batlle, when he took up office, travelled to Santiago, Chile and held meetings with Chilean forestry companies. During these meetings, he exhorted Chilean investors to invest in plantations in Uruguay. It has shown to be one of the few occasions in which the President (of a country that has fallen into the greatest crisis in its history during his government) was successful. The Chileans did invest and the result is now to be seen.

It is important that the Uruguayan people are aware about the implications of this type of "development." However, it is equally important that the world should perceive that what is now being denounced in Uruguay, takes place in practically all the countries of the South where these large-scale plantations are installed.

Outsourced labour is already the standard in all of them, be they Brazil or South Africa or Chile or Argentina. International competition takes place by lowering costs and in all cases, the main mechanism for raw material (timber) to continue cheap does not lie in technologies or in the speed of growth (which are similar in all the cases) nor even in the subsidies (which are also similar), but fundamentally in reducing the cost of labour. This is at the cost of the living and working conditions of plantation workers.

Monoculture tree plantations have already clearly shown that they are environmentally unsustainable. They have also shown that they do not solve, but on the contrary, only worsen social problems. Why are they still being promoted? (WRM Bulletin Nº 69, April 2003).

USA: Pulping the South . . . of the USA

Destruction of forests to make place to tree monocultures is a well documented fact in many Southern countries. A similar but less known process is also happening in the southeastern region of the USA. The states of Alabama, Louisiana, Tennessee and North Carolina have been and continue to be invaded by huge loblolly pine (*Pinus taeda*) plantations. This species is native to the region, but specifically to the moist piedmont between highlands and the sea, and a stranger to the hills where plantations are mostly being installed. But these aren't just any loblollies. They are cloned "supertrees," selected for swiftness of growth, straightness of trunk, and resistance to drought, disease, and insects.

Ted Williams, author of an excellent article published in "Mother Jones" magazine (see details below), begins his analysis with the following question: "What's green, full of trees, and worse than a clearcut?" The answer is: "Vast pine farms, which are rapidly replacing the woods with a new kind of Southern plantation."

Williams describes the process in this manner: "Before planting their superseedlings, the companies clearcut and bulldoze the site to get rid of all native trees, shrubs, vines, ferns, mosses, fungi, grasses, sedges, and wildflowers. Woody debris is burned off. Then they plant loblolly. As the pines mature, they are thinned and pruned. Native trees that return from roots or seeds are cut or killed with herbicides. Frequently the plantation is bombed with fertilizer pellets. Then, 15 to 20 years after they were planted, the pines are clearcut, and the process begins anew."

Some figures show the alarming dynamics of the conversion of forests to plantations. Nowadays there are 156 chip mills in the region, being 110 of them less than 10-year old. Some can grind up to 3,000 acres of woods per year, clearing the way for vast tree farms. Between 1989 and 1995, exports of Southern hardwood chips grew 500 percent. The US Forest Service estimates that

plantations, which today are 36% of all pine stands in the South, will make up 70% within 20 years.

The system used to promote pine monocultures in the Southern US is very similar to that used in Southern countries. Big companies – such as Champion and Weyerhaeuser – receive tax exemptions and soft loans, not to talk of the positive externalities – such as the construction of waterways – that support the development of the pulpwood industry. In Alabama, for example, the state bestowed a tax exemption and other benefits to plantation companies, which deprives the public school system of an estimated US$ 50 million per year. The Tennessee-Tombigbee Waterway construction and dredging works cost the State citizens many million dollars a year. As happens everywhere, a study carried out by the Auburn University shows that rural counties most dependent on this type of forestry industry experiment the highest levels of unemployment and poverty.

One of the reasons there are no meaningful controls on pine conversion – explains Williams – is that forest-products companies have convinced the media and the public that "replanting" a forest once it has been removed is not only possible but admirable. Weyerhaeuser, which according to Business Week does "better than Mother Nature," boasts that it "promptly replants" its clearcuts with "vigorous, young seedlings." The company reports that in 1998 it planted more than 51 million seedlings in its U.S. "forests." Georgia-Pacific, which manages 4 million acres in the South, plants 125 million seedlings each year and proudly proclaims that its "forest is a factory." They are in fact factories, but certainly not forests. As a biology teacher at the University of the South in Sewanee, Tennessee says, the industry needs to quit pushing the fantasy that replacing all these trees with loblolly is reforestation: "Corn is a species of grass. Yet Midwestern farmers don't go around pretending they're restoring the tallgrass prairie."

What the companies neglect to mention – adds Williams – "is that pine farming, like other large-scale, industrial agriculture, harms the environment and the economy. Pine plantations require enormous amounts of fertilizer and herbicide, much of which winds up in streams and drinking water. They impoverish soil and destroy habitat, including wetlands. And they rob communities of valuable sawtimber for lumber and of real forests that produce clean water and provide recreation. Few of the profits end up in local communities, and many of the companies are multinational."

But the impacts are certainly local. As studies performed at Clemson University show, the soil used to grow successive crops of pine looses nutrients present at the topsoil, and the shorter rotations are – as is the present trend – the more destructive the process is. Clear-cutting prior to plantations is having even more dramatic consequences. Some time ago at Moore Hill a big rain provoked a torrent of mud, silt and debris coming from a 100-acre plot recently clearcut by

Champion, which ended at the Mississippi River. Frequently plantations are bombed with fertilizer pellets. This practise not only pollutes fish and wildlife habitats but also affects human settlements. Last year residents of Sequatchi County in Tennessee and their animals were hit by urea pellets intended for a pine plantation belonging to Bowater. There is scant information on the long-term effects of herbicides used in plantations on fish, wildlife and human beings. Plantation companies generally use Garlon, a risky product which can remain in the soil for two years and be easily washed out into water courses.

Additionally, monocultures are themselves facing an important sanitary problem generated by the destruction of the forest ecosystem and the food web associated to it: pine beetles are becoming a menace to the trees in plantations, and they cannot be controlled by their natural predators (such as checkered beetles), which have disappeared from this new artificial environment.

In sum, monoculture tree plantations in the Southern US show the same pattern as plantations in Southern countries: the process is promoted by the state, it benefits large corporations, it generates few benefits to local communities, who have to bear the social and environmental impacts generated by this forestry model and constitutes a major cause of deforestation. (WRM Bulletin Nº 36, July 2000).

USA: Where plantations are clearly not forests

Few people know that the Southern US is currently the largest wood and paper producing region in the world. Successful efforts to protect the last remnants of old growth forests in the Pacific Northwest, resulted in the expansion of the industry into the recovering second-growth forests of the South. In the last 10 years, more than 100 industrial-scale wood-chipping facilities have been constructed in this region, while paper production alone has increased by one-third since 1985. Approximately 5 million acres of forests are clearcut every year in the region for paper.

The Southern US is now home to one-half of all the world's industrial tree plantations (approximately 30 million acres, some 12 million hectares) and experts are projecting a doubling of plantations over the next 20 years. Already, 40% of the native pine forest throughout the region have been turned into monoculture plantations. Industry experts project that number to increase to 70% by 2020.

Despite all the fast-growing plantations, pine trees (the species of choice for plantations) are currently being cut faster than they grow according to the US Forest Service. And while industry argues that plantations take pressure of natural forests, experts project that removals of the region's natural hardwood forests will exceed growth within the decade.

There is very little old growth forest remaining in the region, as virtually all the forests were logged by the turn of the 20th century. Nevertheless, the region's recovering second-growth native forests are the most biologically diverse in North America as they escaped glaciation during the last ice age. These forests contain the highest concentrations of tree, other terrestrial and aquatic species' diversity on the continent.

Not only are diverse natural forests being converted to fast-growing plantations, but wetlands are being drained to make way for plantations as well. These plantations are being sprayed via airplanes with chemical fertilizers and herbicides. In addition, large timber companies (International Paper, Georgia-Pacific, Weyerhaeuser, Westvaco etc.) are positioning the Southern US as an international focal point in genetic engineering (GE) of trees.

Not only is this impacting the ecology of the region, but it is also having an adverse impact on local communities – it is as much a social issue as it is an environmental one. Communities surrounding large industrial plantations tend to be economically depressed, having higher than average poverty rates and lower expenditures on public education.

There are no laws in place in the Southern US to prevent the conversion of forests to plantations, as the largest timber companies in the world are concentrated in this region of the globe and have undue influence over the political system. In fact, the current policies actually encourage and subsidize the conversion of forests to plantations.

The good news is that there now is a very strong, diverse coalition of groups across the region (including religious leaders, recreation businesses, local saw mill owners, local concerned citizen groups and forest protection groups) working together to stop the expansion of industrial forestry with a long-term goal of eliminating unsustainable, industrial forestry practices altogether. The Dogwood Alliance – a coalition of 70 organizations across the Southern US – is currently working in two areas:

1- Government Policy: to stop the further expansion of the industry and secure legal protections for forests at the state level. There is currently a moratorium on the licensing of new wood chipping facilities in the state of Missouri, and it is now more difficult for a company to get a permit for a chip mill in the State of North Carolina. Collectively, the Alliance has stopped the construction of seven chip mills since 1991.

2- Corporate Markets: to take pressure off forests by shifting markets away from products derived from unsustainable practices and towards alternatives.

The Alliance – together with organizations such as Rainforest Action Network – was successful in convincing Lowe's (the second largest retailer of wood

products in the US) to discourage their suppliers from converting forests to plantations.

The coalition is also involved in a national campaign (in partnership with Forest Ethics) targeting Staples (the largest office supply retailer in the world) to get them to become a leading global retailer of high, post-consumer content recycled paper products.

With less than 20% of the world's old growth forests remaining, we must recognize that protecting old growth forests alone will not be enough to sustain the Earth's biodiversity. There are still well-intentioned groups and individuals working to protect old growth forests that believe plantations are a part of the solution to the world's forest crisis. One needs only to understand the situation in the Southern US to know that plantations do not offer protection for forests; they destroy them. (By: Danna Smith, WRM Bulletin Nº 49, August 2001).

USA: Kinkos says no to genetically engineered trees

Genetic engineering is racing ahead to provide genetically tailored trees designed for commercial plantations with traits such as herbicide resistance, insecticide production, rapid growth and reduced lignin content in trees for commercial convenience.

The attempt to genetically engineer trees is part of a long history of trying to convert diverse ecosystems into single-use production plants. With the Green Revolution introduced in the 50's which implied the industrialisation and "commodisation" of agriculture, the sound paradigm of diverse forest management has been increasingly replaced by a pattern which offers no space for forest uses other than wood fibre extraction, the utmost expression of it being large scale monoculture tree plantations.

In a step forward, industries together with some governmental authorities and universities have teamed up to make genetically engineered tree plantations a reality. Even though they claim to assess possible environmental impacts, field trials of GE trees are springing up all over the world. These trials are not contained and the impact they have on the environment is unpredictable. The first transgenic species that will be used commercially in plantations are: poplar, pine and eucalyptus. The threats of genetically engineered trees include the loss of millions of acres of native forests, disruptions of insect, bird and wildlife populations, contamination of water and soil, and increased use of herbicides and pesticides. GE trees will also lead to the inevitable and irreversible contamination of native forests with genetically engineered pollen in a perpetual domino effect.

From the academic community and the civil society many have voiced strong opposition to this trend. A campaign on genetically engineered trees has been

going on since March 2000, organised by Action for Social & Ecological Justice (formerly Native Forest Network's Eastern North American Resource Center) and founding member of the Global Alliance Against Genetically Engineered Trees (GAAGET). Beginning in the fall of 2002, ASEJ held regional strategy sessions in the four regions of the United States most heavily involved in genetically engineered tree research and development. A national strategy session followed where participated groups like Rainforest Action Network, the Dogwood Alliance and Forest Ethics. The purpose of this campaign is to achieve an international ban on the release of genetically engineered trees into the environment including test sites and commercial applications.

And now, there is some good news. Kinkos, the photocopy giant, announced that it would not align itself with suppliers using genetically engineered trees. This policy is the first of its kind regarding genetically engineered trees and is a groundbreaking step toward the elimination of the severe ecological threats posed by genetically engineered trees.

"We laud this decision by Kinkos and congratulate Rainforest Action Network and the Dogwood Alliance on this important victory," said Brad Hash, Campaigner on Genetically Engineered Trees for Action for Social & Ecological Justice, who is confident that this is the beginning of a ripple effect that will be contagious throughout the industry. (WRM Bulletin Nº 69, April 2003).

Venezuela: Increasing difficulties for Smurfit

Smurfit Carton, subsidiary of Jefferson Smurfit, owns 34,000 hectares of monocultures of gmelina, eucalyptus and pine in the Venezuelan states of Portuguesa, Lara and Cojedes. 27,000 hectares are located in Portuguesa, where the company confronted the local communities of Morador and Tierra Buena, which resisted the invasion of tree plantations in their agricultural lands.

According to recent information, Smurfit is facing severe sanitary problems in its plantations in Portuguesa. The uniformity of monoculture tree plantations makes them very vulnerable to the attack of insects and pests. The initial advantage of the plantation of an exotic tree – the absence of its local predators – becomes a catastrophe when either a local species adapts to feed on those trees or when its natural predator eventually arrives from its original ecosystem. Whichever the case, the fact is that many trees are now dying in these plantations.

At the same time, during the dry season fires have affected plantations in Portuguesa and Cojedes. Company's spokepersons have accused local peasants of sabotage actions against plantations. Fires are also very easy to burst with dry conditions and in a uniform environment as that of tree plantations, especially in the case of eucalyptus and pines. At present local

villagers and environmentalists fear that Smurfit will try to compensate the loss of planted wood by cutting down nearby forests, as it did before the successful protests of 1999.

From a political point of view things do not seem to go well for Smurfit either. The new Venezuelan constitution, approved by a referendum in December 1999, includes explicitly environmental rights, indigenous peoples rights, and condemns land tenure concentration. According to principles of social justice in the countryside and sustainable land planning, commercial plantations are not allowed on soils apt for agriculture, since this would mean a competition with food production. Smurfit's future in Venezuela now seems to be – to say the least – problematic. (WRM Bulletin Nº 33, April 2000).

ASIA

Burma: Forced labour in oil palm plantations

On 13 June 2001, Amnesty International released a report on Burma titled "Myanmar. Ethnic minorities: targets of repression." The report states that for the last 13 years this organization has documented "the widespread use of forced labour of ethnic minorities by the Myanmar military" and adds that "perhaps the most common human rights violation of ethnic minorities is forced labour of civilians, who are much more likely to be seized by the army than the majority Burman group."

According to Amnesty International, "there are two broad types of forced labour: the first is portering, which entails carrying heavy loads for the military over rough terrain for days or weeks at a time. The second type involves work on construction projects such as roads, railways, and dams. Men, women, and children are all taken for labour duties, and almost never paid for their work."

Organizations such as the Karen National Union and Free Burma Coalition have identified oil palm plantations among the many types of activities being carried out forcibly by local people. In February 1999, the Vice Chairman of the State Peace and Development Council (Burma's military regime) General Maung Aye was accompanied by national entrepreneurs on a field trip to reclaim "vacant, virgin and fallow lands" for cultivation of crops in Taninthayi Division. Gen. Maung Aye said that "the land between Kauthaung and Myeik is appropriate for cultivation of edible oil palm on commercial scale, and should local entrepreneurs establish edible oil palm plantations on thousands of acres, it is sure that Taninthayi Division would become the "edible oil pot" of the country like Magway Division". He assured that the government would provide support for success of local entrepreneurs implementing the projects in accord with the economic objectives of the State. Local entrepreneurs also explained the tentative plan to cultivate oil palm on 400,000 acres in the division and the chosen sites.

The Vice Chairman has certainly kept his promise of "providing support". On 27 July 2000, SPDC's troops ordered villagers from Thagyet and Kyeinchaung villages to work for a military oil palm plantation at Kyeinchaung area. 70 persons from Thagyet, 50 from Nyaungbingwin, 30 from Thebotleik, 50 from Kamukru, 30 from Kyauktalone villages were demanded to go and work in turn. The oil palm plantation has a 55,500 acre extension.

Since January 2001, SPDC have started another oil palm plantation plan in Tanawthiri township (Taninthayi) in Mergui district, Tenasserim division. The planned area to clear are in the surroundings of Thaboleik, Leikpu, Htihpo-awmay, Kabawplaw villages in the east of Taninthayi town and the villagers from those related villages were ordered to clear the plantation site. The area of plantation was not known yet. SPDC authorities are working for Yan Naing Myint Co.and have ordered their local militia to take responsibility for the operation. SPDC had ordered all the local village tracts nearby to plant the oil palm saplings when the site was ready. Every household must go and plant the sapling from the beginning to the end.

This is clearly the most extreme case of exploitation and human rights violations related to oil palm plantations and the international community needs to be made aware of the situation. Organizations campaigning against large-scale oil palm monocultures should take the Burmese case on board to provide support for those communities facing such abuses. (WRM Bulletin Nº 47, June 2001).

Burma/Thailand/Laos: Colonial forestry - then and now

The purpose of British colonial forestry in the nineteenth century was to ensure that the colonial state maintained control over the forests in order to ensure a steady supply of timber. The imprint of colonial forestry in the Mekong Region is still felt today, as states continue to wrest control of forests from local communities.

During the late eighteenth century, Britain's oak forests were increasingly exhausted by the demands of the Royal Navy for shipbuilding. In 1805, the British launched the first battleship constructed completely of teak from Bombay. By the mid-nineteenth century there were well over one hundred British teak ships and the British appetite for teak appeared insatiable.

In 1856, the British hired Dietrich Brandis as superintendent of the teak forests of Pegu division in eastern Burma. At the time many of Burma's teak forests were in areas controlled by militant indigenous groups such as the Karen. Brandis, a German botanist who was later to become inspector general of forests in India, aimed to assert state control over Burma's teak forests. Under the "taungya" system, which Brandis helped establish, Karen villagers provided labour for clearing, planting and weeding teak plantations. In return they were

allowed to plant crops for the first few years between the trees. As the teak trees grew, villagers were moved to new land and repeated the process. As a result of this process, many villagers became dependent on the state forestry service and local resistance to the state takeover of forests became increasingly difficult.

Raymond Bryant, of King's College in London, describes how the formerly rebellious Karen were effectively co-opted into teak reforestation: "The taungya forestry system was attractive precisely because it was a means to regulate, and gradually eliminate shifting cultivation from Burma's forests. In effect, each acre planted was an acre no longer available for use by the hill Karen."

Neighbouring Thailand was never colonised by the British, but the taungya system of forestry lives on today in the service of the Thai state. Since the 1960s, the Forest Industry Organisation in Thailand has established a series of "forest villages" in which villagers carry out a form of taungya forestry. The FIO created the first forest village at Mae Moh in northern Thailand in 1968, with the aim of reducing shifting cultivation and increasing reforestation. However, villagers are allowed no say in the management of the plantations and receive no income from the trees in the plantations. Neither do villagers receive land titles under the forest village scheme. As the late Ted Chapman of the Australian National University pointed out in 1980, FIO's reforestation amounted to little more than the confiscation of land which villagers already used.

In July 2001, two of FIO's forest village plantations were certified under the Forest Stewardship Council system. Yet the FIO's forest villages were considered out of date more than twenty years ago. In 1978, Ted Chapman pointed out at a conference in Thailand, "Taungya reforestation, as it is now practiced in Thailand, is clearly out of step with recent recommendations by FAO, IUCN, and other organizations concerned with the welfare of dwellers on the forest margins." Surprisingly, FSC-assessors SmartWood did not recognise FIO's version of colonial forestry as the out-dated system of exploitation that it is.

Meanwhile, the Lao Government is developing its own form of internal colonisation through taungya forestry. Last year, after an ethnic minority family in southern Laos cleared 10 hectares of land and planted it with rice, Department of Forestry officials informed them that the land was to be planted with 4,000 tree seedlings. The family will be allowed to harvest their rice this year. However, they are worried that they will not be allowed to use the land next year. While the family stands to gain nothing, the government got the land cleared for free to establish a teak plantation.

The Department of Forestry organised local villagers into work teams and trained them in planting the seedlings. Once the seedlings were planted, the Department of Forestry demanded that villagers maintain the plantation. This will involve several years of weeding and continuous fire control.

The tree planting coincided with the planting of farmers' own crops, leading to labour shortages in the farmers' own fields. A villager told researchers, "We are confused about why we are planting these trees, when we get nothing in return."

Ironically, the tree planting was carried out on Arbour Day. On Arbour Day, according to article 46 of the Lao Forestry Law, Authorities should "Be enterprising in planning and widely mobilizing all labor forces, and capital from all parties, including the armed forces, civil servants, primary and secondary students, and people to participate in planting trees. After planting, attention must be paid to the maintenance and protection of the planted trees so that they can grow and develop."

The Department of Forestry is certainly enterprising in its use of villagers' free labour and it has obeyed the letter (if not the spirit) of the forestry law. However, its actions have soured relations with villagers who are resentful of having their labour exploited for a teak plantation which will not provide them with any benefits. (By: Chris Lang, WRM Bulletin Nº 68, March 2003).

Cambodia: Oil Palm Plantations

In early 1999, the Phnom Penh Municipal Authority moved 99 families from a squat behind the Russian embassy in Phnom Penh to Monorom 1, a newly constructed village 150 kilometres away. With the promise of work on an oil palm plantation, new houses and two hectares of palm plantation each many of the squatters were willing to move. A billboard put up by the Phnom Penh authorities announcing that part of the squatters' area was to be made into a park further encouraged people to move.

Monorom 1 consists of 99 wooden houses built in rows, half with blue roofs and half with red roofs, each on its own small plot of land. The Phnom Penh authorities also constructed a market and a school.

The company that established the plantation, Mong Reththy Investment Cambodia Oil Palm Co. Ltd., is a joint venture between Mong Reththy and three foreign partners. Mong Reththy, one of Cambodia's richest businessmen, holds 60 per cent of the company, while the rest is shared between Borim Universal Co. Ltd. (South Korea, 20%), Kim Tat Send Group Pte. Ltd. (Singapore, 10%) and Lavanaland Sdn. Bhd. (Malaysia, 10%).

The US$12 million investment consists of 3,800 hectares of oil palm plantation and a processing factory due to be completed by 2002. Seventy per cent of the factory's output will be for export, largely to China and South Korea, with the remainder going to local soap manufacturers.

In February this year Mong Reththy told Reuters that the plantation would employ 3,000 workers. The people relocated from Phnom Penh to work on the plantation tell a different story.

Long Saran, one of the villagers who moved to the new village was laid off in April this year. He said, “When the 99 families moved from Phnom Penh about 50 people got jobs with the company. The Government had told us we would all work for the company.” Now less than ten people from Monorom 1 work on the plantation according to another villager.

None of the villagers have received the promised two hectare palm oil plots. In any case the company would not have given the two hectare plots freely. Instead they provided the company with a means to chain villagers to the company. Villagers began life in Monorom 1 with a debt to the company of US$4,430. According to the Mong Reththy company, the company would keep 30 per cent of the income from villagers’ two hectare oil palm plots until this debt was repaid.

In October 1998, before the villagers were relocated, Pho Vuthy the plantation manager told the Phnom Penh Post that crops like rice, beans and corn could be grown between the rows of oil palm to supplement villagers’ income in the first three years. In fact after one year the company prohibited this on the grounds that it could lead to fires in the plantations.

The villagers want Chea Sophara, the Phnom Penh Governor, and Prime Minister Hun Sen to visit Monorom 1 and learn about their problems. “The Government should practise its policy and provide jobs as it promised. Solutions can be found through debate with the people here. If there is no resolution, villagers will make a complaint to the Government to resolve the problem,” said Long Saran.

The Mong Reththy company established its oil palm plantation on land that was either forest or already in use by people living in one of the four villages in the area. For example, almost all the 300 families in Tanei village lost land to the company’s plantations. The village has now moved to an area adjacent to Highway 4, the main road between Phnom Penh and Sihanoukville, and many of the people try to earn a living from selling drinks and fruit from the small shops lining the road.

Many villagers feel tricked by the company into giving up their land. One villager who lost his land to the company and has never received any compensation explained, “The chief of the commune asked us to give our thumb prints on a statement, but so far we haven’t received anything. The government has given money to the company, but every month the company tells us it will pay us next month. Now one year has passed.” Other villagers from Tanei that did receive compensation only received money for land, and nothing for the trees they had planted on the land.

In July 2000, Mong Reththy told the Phnom Penh Post that his company still intended to provide land for the villagers. “We will provide land for them when they have money to buy seed to grow crops. We will give land to whoever wants to grow crops and has the money to plant,” he said.

Meanwhile, most of the families in Monorom 1 are unemployed and are either collecting firewood from the nearby forests to sell in Phnom Penh, or are moving back to Phnom Penh to look for work there. (By: Chris Lang, WRM Bulletin Nº 39, October 2000).

Cambodia: Eucalyptus plantations and pulp production threaten forests and rivers

Forest and biodiversity conservation mean different things to different people. In the case of Cambodia, village people throughout the country depend on farmland, fisheries and forests for their livelihoods. For them, conserving the forest and its biodiversity implies ensuring their present and future means of survival. In recent years, even as peace has returned to rural areas, large scale logging concessions have reduced villagers' access and rights to forests, and caused massive damage to the forests themselves. Cambodia's villagers and their forests now face a new threat – that of massive industrial tree plantations.

In January 2000, the Royal Government of Cambodia signed an agreement with the Pheapimex Group giving the company a 70-year right to "develop" 300,000 hectares of "spare forest" land in the provinces of Kampong Chhnang and Pursat in central Cambodia. Pheapimex intends to plant the land with eucalyptus trees to supply a planned pulp and paper mill in Kandal province.

In addition to wood, paper production requires huge amounts of chemicals, water and energy, and the process results in high levels of pollution. Mills release thousands of polluting substances into nearby waterways, including dissolved wood and chemicals which can reduce the oxygen levels in rivers and kill fish. The major waterway in central Cambodia is the Tonle Sap, a vast lake which flows into the Mekong at Phnom Penh and from there to the Mekong delta. The lake provides Cambodia with a large proportion of its fish and water from the Tonle Sap irrigates a huge area of rice fields. If the Tonle Sap became polluted by discharges from a pulp and paper mill it would have a disastrous impact on the livelihoods of thousands of people.

In December 2000, Pheapimex signed a joint venture agreement with the Chinese Farm Cooperation Group to build a pulp and paper mill. The US$70 million joint venture is financed by the Import-Export Bank of China, and forms part of a deal between the Chinese and Cambodian governments to boost trade and investment between the two countries. Under the terms of the loan, the companies will pay five per cent interest to the Cambodian government, but the Chinese bank will only charge three per cent.

The Secretary for Agriculture, Forestry and Fishery, Chan Tong Iv, told the Phnom Penh Daily he welcomed the deal and said the government's efforts to draw investment into the agriculture sector were bearing fruit. Pheapimex is well-

placed to benefit from such deals – Lao Meng Ken, Pheapimex's director, is also a special adviser for foreign investment to Cambodian Prime Minister Hun Sen.

Pheapimex-Fuchan, a Taiwanese joint venture with the Pheapimex Group is the largest logging concession holder in Cambodia, with more than 700,000 hectares of concessions. According to Global Witness, Pheapimex-Fuchan is "the worst concessionaire in Cambodia, and the best connected". Global Witness – currently employed in Cambodia's Forest Crimes Monitoring Unit which is funded by the UK's Department for International Development – has accused Pheapimex of illegally logging outside their concessions, logging in other firms' concessions, threatening and attacking forestry officials and logging without the prior approval of the Department of Forestry.

Lao Meng Ken explained to the *Phnom Penh Post* that he believed Pheapimex's plantation project would not violate the property rights of local people. "I heard that the people complain about cutting of their resin trees. But we're planting in a place that does not violate their rights," he said. Villagers in Ansa Chombok commune in Pursak province disagree. They are afraid that the plantation will destroy 6,800 hectares of forest near their village. The forest includes an area of lowland pine forest (*Pinus merkusii*) which is rare in Cambodia and protected by law.

In February 2001, villagers travelled to Phnom Penh to try to persuade the government to halt the planned plantation. In March, a meeting between government officials and villagers took place in Ansa Chombok commune. Over 100 villagers from seven villages turned up to the meeting but officials allowed only one representative from each village into the meeting.

During the meeting, the village representatives asked the government officials a series of questions, including: whether the government had approved an environmental impact assessment before signing the contract with Pheapimex; what the likely impact of a pulp and paper mill would be on the Tonle Sap and its fish; and why, when already Cambodia is suffering from rapid deforestation, is the government allowing Pheapimex to destroy more forest. The government officials offered no response.

Oum Huot, a villager from Ansa Chombok told the *Phnom Penh Post*, "We completely reject the idea that this land is 'degraded forest'. This is good forest and the big trees were cut by loggers only in the last few years. If they leave this land alone for 15 to 20 years big trees will grow again." "We are worried about this plan," Luek Thuon, another villager from Ansa Chombok, told the Phnom Penh Post. "If they destroy the old forest they might as well come to kill us all. It is our rice pot." (By: Chris Lang, WRM Bulletin Nº 44, March 2001).

Cambodia: Rubber and palm oil plantations impact on local communities

While not related to the pulp and paper industry, rubber plantations and oil palm plantations have similar impacts on local communities to fast-growing tree plantations. Rubber and oil palm plantations also involve using large areas of land, often land which is crucial to local people's livelihoods.

During the 1960s, especially in the northeast of Cambodia, many highlanders were evicted from their traditional lands to make way for rubber plantations. The plantations, Prince Norodom Sihanouk's assimilation policies in the northeast and the bombing by the US airforce meant that the northeast was a prime recruiting ground during the first years of Pol Pot's Khmer Rouge.

Since the 1960s many of the rubber plantations have been neglected and only in recent years have some of them been rehabilitated. The Cambodian government is currently encouraging the rehabilitation of rubber plantations and the development of new plantations.

In August 2001, Prime Minister Hun Sen gave a speech in Kompong Thom province at the launch of the Chhub Rubber Plantation Company's 6,200 hectare plantation. In his speech, Hun Sen praised the company for "rehabilitating the ecological balance of the region, which was degraded to some extent by logging". Local villagers are to grow cash crops between the rubber trees and will be given three hectares of land "to develop rubber plantations or grow other cash crops". Hun Sen added, "Our people have been transformed from rice and slash-and-burn farmers into workers and owners of the family rubber plantation."

Local people's experiences with plantations and cash crops elsewhere in Cambodia however, indicate serious problems when large tracts of land are taken over by agricultural plantations. An oil palm development in Ratanakiri in north-east Cambodia illustrates these problems.

In 1995, a joint venture company won a 20,000 hectare concession to plant an oil palm plantation in O Yadao district, Ratanakiri province. The company is a joint venture between Globaltech Sdn. Bhd. (Malaysia), Mittapheap-Men Sarun and Rama Khmer International (both Cambodia). The project would displace 4,500 people from their land, while providing employment for a maximum of 400.

The company recruited villagers to clear land for the plantation including villagers' forests and fallow fields. "The company measured the land that people were in the process of farming and said this land belongs to the company already – even if we didn't sell," one villager told Sara Colm, a researcher with the NGO Natural Resources Management Project. However, a trial plantation in 1996 was a complete failure and land the company had already cleared was simply left unused. The company then started to plant coffee, much of which died because of drought the following season. The company then built a dam to

provide water to irrigate the coffee. Villagers downstream of the dam have seen their streams and water sources depleted. The company bought the land which was submerged by the reservoir from villagers at a price of US$52 per hectare. Villagers sold the land unwillingly, reasoning that the company would take the land anyway, if they refused to sell.

A survey by the Ratanakiri-based NGO, NTFP project, compares the potential income to villagers from planting fruit trees between 1995 and 1998 and the income to villagers from large scale monoculture. The survey concludes that the income from fruit trees is significantly greater for villagers, and "because it is based on a variety of crops is less risky and more sustainable than large scale monocultures that are being presented as the alternative."

The report also sums up villagers' problems with contract farming on large-scale monoculture plantations:

"While the company may be offering employment opportunities to local people, their sharecropping plan increases village peoples' vulnerability because they will have to give up growing rice for their families in order to tend the coffee. Their income will depend very much on seasonal growing conditions and the company will dictate the price at which villagers must sell their beans to the company. Farming people are really being asked to take risks that they cannot afford to take. Their question to the company was . . . how are they going to look after their children and their old people if they have to give up everything and look after coffee." (By: Chris Lang, WRM Bulletin Nº 59, June 2002).

China: UPM-Kymmene and APRIL, The Chinese-Indonesian connection

UPM-Kymmene Corporation – one of the world's largest forest products companies and paper producers, with industrial plants in 15 countries – the APRIL Group (Asia Pacific Resources International Holdings Ltd.) and APRIL's majority shareholder have recently signed an agreement to sell APRIL's 51% interest in the Changshu paper mill to UPM-Kymmene. The value of the transaction is US$ 150 million. As a consequence of the agreement, the Finland-based UPM-Kymmene has now become the sole owner of the Changshu paper mill. At the same time, it has been agreed that APRIL will enter into a six and a half year contract for supplying bleached hardwood kraft pulp to the Changshu paper mill.

The Changshu paper mill, which started to operate in March 1999, is located by the Yangtze River in Jiangsu Province, about 100 kilometres from Shanghai. The mill's paper machine – provided by the also Finnish company Valmet – has an annual capacity of 350,000 tonnes of uncoated fine paper. Since the beginning, UPM-Kymmene has had the management responsibility of the paper mill. During year 2000 the estimated production of the mill will be about 290,000

tonnes of uncoated fine paper, and its exports will represent a half of the total Chinese paper sales to neighbouring countries.

It is interesting to note that the now formally separated partners will continue carrying out joint activities during the coming six and a half years but in a different scenario. UPM-Kymmene will produce paper in its own plant in China, but with pulp supplied by APRIL. The strong criticism received by the alliance between both companies was to a large extent based on APRIL's bad reputation in Indonesia, where it destroyed extensive areas of rainforest, which were substituted by monoculture pulpwood plantations. Additionally, APRIL generated conflicts with local communities over land tenure issues and between local dwellers and the company's workers. The new situation will allow UPM-Kymmene to try to dissociate itself from those negative impacts, while at the same time to benefit from purchasing cheap pulp for the cleaner and less contentious process of paper production.

At the same time – and according to the company itself – "the Changshu paper mill will become a significant platform for UPM-Kymmene's strategy in Asia. The strong growth in paper consumption in China and elsewhere in Asia create favourable circumstances for further development of the Changshu paper mill". Will the next move be to plant eucalyptus – with advice from Finland's Jaakko Poyry – and to produce pulp in China? Would that be the reason for the "six and a half year" contract with APRIL? (WRM Bulletin Nº 38, September 2000).

China: Exporting deforestation and promoting tree monocultures

The growth of the Chinese economy, measured in conventional economy terms, is astonishing: its National Gross Product jumped to U$$ 4 trillion, which represents a 22-fold increase of its value in 1978. Whether this phenomenon can be considered a success for China and the region is doubtful since, on the one hand, it has been accompanied by important environmental problems in the country itself – among which the loss of significant areas of the country's forests and the expansion of tree monocultures – and, on the other hand, it has led to deforestation in other countries of the region in order to satisfy the increasing demand for wood of its domestic market.

To face deforestation and subsequent soil erosion, the Chinese government put in place in 1998 a logging ban in 12 provinces, which was extended to 18 in 2000. As a result, national timber production decreased 97% from 1997 to 2000. But wood consumption increased and is currently leading to deforestation in neighbouring countries.

One of those such cases is Burma, where the town of Pianma, located 1,500 miles southwest of Beijing on the far edge of Yunnan province, is currently one

of China's gateways into the forests of northern Burma. A massive, unregulated and largely unnoticed timber trade had been depleting the ancient tropical forests of the region. It intensified in 1998 after the above-mentioned logging ban. More than 350,000 cubic metres move through Pianma alone each year. Large amounts also come into China from Burma at towns farther south along the border, like Tengchong, Yingjiang, Zhangfeng, Ruili and Wanding. A Malaysian timber firm is building a bridge across the Salween River, 60 miles north of Pianma near Fugong, to bring in still more logs. According to official statistics, Burma supplies almost 10% of China's imports (740,000 cubic metres) but trustworthy estimations consider that the real volume is twice that high. In Burma, forest cover has dropped from 21% of the country's area in 1949 to less than 7% nowadays. The military dictatorship that rules the country since 1962 has paved the way to transnational logging companies that are devastating the forests and local peoples' livelihoods.

Unfortunately, Burma is one of several examples of deforestation linked to China's economic growth. Imports of Russian softwood logs have also considerably increased over the past two years and Russia now accounts for 42% of all logs that enter China.

Preparations for China's entry into the World Trade Organization have also sparked a further increase in timber imports. In a move for a more open trading system, tariffs on forestry products have fallen drastically, and in many places along China's borders, no tariffs are charged for logs. China's imports of logs have grown from less than 5 million cubic metres in 1998, to more than 10 million in 1999, and to some 15 million in 2000. The country has become the world's second largest importer of wood.

Within such context, the logging ban appears to be but a way of diverting the burden of China's economic growth to other countries. At the same time, the measure is leading to a dramatic increase in monoculture tree plantations within the country.

"As China gets richer, it's natural that it will consume more wood" stated recently a World Bank official. Is that the only answer? Is not the problem more based on the adoption by China of a development model based on a consumption style which results in unsustainable use of internal and external resources?

In the 1940s, India's Mahatma Gandhi was asked by a supporter how long it would be before India was as rich as England. Gandhi's response was: "if it took half of the world to make England as rich as it is, how many worlds will it take to make India that rich?" Is not the same applicable to China? (WRM Bulletin Nº 45, April 2001).

China: Following the trite pattern of monoculture tree plantations

The Great Leap Forward in 1958 and the Cultural Revolution had thwarted in China the establishment of high yield timber plantations put forward in the late 1950s by the Chinese Ministry of Forestry. However, since 1980s, along with the implementation of the reform and open-door policy (namely China's entry to the global market arena), the existing imbalance between wood demand and supply was altered. This seems to be not very different from the process undergone by other countries which end up engulfed by the global commerce and its packaging demand. Apparently, the response to the gap has been also very similar to the one implemented in most of the free market economies: large scale monoculture tree plantations of high yielding species (generally alien) which are even mainly the same. That's how Australia's national tree is expected to become a new choice for China to ease the soaring pulp needs of its cardboard and paper industry.

The Chinese Government decided in 1988 that, in the next 30 years, fast-growing and high-yielding timber bases of 20 million hectares would be established. China's forestry scientists have developed eucalyptus varieties and created a plantation area dubbed Asia's largest "eucalyptus gene bank" in southwest China's Zhuang Autonomous Region, a subtropical region where the trees are widely planted to provide more cost-effective pulp material. New varieties grown at the base are generally "ultra fast-growing eucalyptus" which can be felled six years after planting with a yield of more than 60 cubic meters per hectare per year.

However, the pulpwood rush has been at the cost of food. Last year, China's tree plantations increased 1.53 million hectares from 2001, while farmland acreage decreased by a total of 1.68 million hectares since China turned 1.42 million hectares of farmland into tree plantations, according to the Ministry of Land and Resources in its "2002 China Land and Resources Communiqué".

As usual, the World Bank is meddled in. In order to boost State investment, the World Bank Forestry Development Project (Credit 605-CHA) had been introduced in 1985 to establish and transform commercial timber plantations, construct forest roads and procure accessory equipment. In 2002, the total area of tree plantations reached 230.72 million hectares, of which 3.4 million hectares were fast-growing and high-yielding timber plantations, with 980.000 hectares being established under the 1991 National Afforestation Project Financed by a World Bank loan of US$ 300 million and domestic funding equivalent to US$ 200 million.

Also foreign companies have sought to enter the coveted huge Chinese market. Since the late 1980s, a number of large foreign companies have invested in plantation development in China, especially in south-eastern coastal provinces

that are characterised by a favourable investment climate and natural conditions. Singapore-based Asia Pulp and Paper Co. Ltd.; Thailand-based Soon Hua Seng Group; Hong Kong-based Sino-Wood Partner Co. Ltd.; Japan Princes Co. Ltd., have projects under way. Asia Pulp and Paper plans to establish 1.3 million hectares of fast growing *Eucalyptus* and *Acacia* plantations throughout China. By May 2000 it had 65,300 hectares of tree plantations.

The Swedish-Finnish integrated forest products giant Stora Enso has been also a major agent in research and development on this field. Together with the Government of the Guangxi Zhuang Autonomous Region, it has conducted a pre-feasibility study for industrial-scale plantations and integrated pulp and paper operations. Stora Enso also signed in 2002 an agreement for co-operation with the Chinese Academy of Forestry in Beijing.

China has been entering the global economy at its own rhythm, no doubt. Restrictions on foreign investment and private land ownership mean that foreign companies have gained access to forest land by forming agreements with local communities, which are in turn approved by government. However, the process has eventually made room for the same pervasive elements of the western unsustainable pattern of production, consumption and commercialisation. In this case, the large scale plantations of monoculture trees with all their notorious harmful impacts on the people and the environment. (WRM Bulletin Nº 70, May 2003).

India: The World Bank's "Revised Forest Strategy" under challenge

The "Revised Forest Strategy of the World Bank Group" approved on October 31, 2002 makes some very significant admissions like: "There is a close link between the livelihoods of the poor and forests, and '(it is a) largely false notion that the poor are the cause of deforestation in developing countries'."

"The reality is that the flow of funds into forests ... will continue to be dwarfed by investment in activities that may have damaging impacts upon forests". And: "The Bank must have an appreciation of how its action and investments in other sectors, or at the macroeconomic level, will impact on forests and forest peoples".

For long it has been argued, largely in vain though, that the responsibility for forest destruction and environmental degradation cannot be placed primarily at the door of the poor and that the new economics of the last decade or so have not only further marginalised those on the margins, but also severely undermined the natural resource and survival base comprising forests, rivers, wetlands and coasts.

However, the strategy lies on a basic contradiction: the agenda of free market liberalisation comes out loud and clear, albeit attempting a back-door entry

here. A central message that comes across is that money is the key to saving the forests of the world. Involvement of the private sector finds important mention. It also links up with respective National Forestry Action Plans (NFAPs). India's NFAP, which was prepared in 1999 by the Union Ministry of Environment and Forests (MoEF), has projected that we need around US$ 28 billion to protect our forests. But is a "money centric approach" the right one at all?

In the decade of the 1990s alone, India borrowed nearly $350 million from the bank for Phase I of the Forestry Projects in Maharashtra, West Bengal, Andhra Pradesh (A.P.), Madhya Pradesh (M.P.), Uttar Pradesh (U.P.) and Kerala. Has this actually helped in protecting and regenerating forests? Has livelihood security of forest-dependent people been ensured? Have the poor benefitted? There are a number of questions, answers of which are needed to get an idea of what the impact of the projects have been. Concern and allegations that Phase I activities were not transparent, they alienated tribals from the forests, led to inter and intra-village conflicts and actually helped strengthen existing inequities and power structures that lie at the root of forest management and conservation issues, have been wide-scale.

Meanwhile, Phase II of the Forestry Projects in A.P. and M.P., with outlays of $108 million each has been approved and the first instalment for A.P. has already been released. That brings us to the issue of poverty alleviation, which according to the bank, lies at the very heart of its revised forest strategy. There are fundamental contradictions here as well. At one place the document appears to accept the more recent definitions of poverty as something that amounts to a lack of assets (physical, financial, human and social) that are needed to generate an adequate and sustainable livelihood. But recurrently it is the "pop and shock" definition of poverty that finds usage – "poverty remains a global problem of gigantic proportions. Of the world's six billion people, 2.8 billion, or almost half, live on less than $2 a day. Of them 1.2 billion live on less than $1 a day." No discussion on larger implication of what poverty is, what the real causes could be and what will have to be the long term solutions.

What cries out for attention in this context is the section in the executive summary titled "Harnessing the potential of forests to reduce poverty". It envisions improving the quality of rural life. The underlying concept for this strategy is a developing world in which rural residents enjoy a quality of life that is not significantly below that available to urban residents; rural communities offer equitable economic opportunities for all their residents – regardless of income, status or gender –; become vibrant, sustainable and attractive places to live and work in; contribute to national development and the overall economy and are dynamically linked to urban areas. It is an articulation that is shockingly out of touch with the world that we live in.

Nothing could be further from the truth, particularly in a country like India which is more than 70 per cent rural and largely agricultural. There is no disputing that

there is great poverty and deprivation in parts of rural India, that there is a great deal of inequity and exploitation and that a lot needs to be corrected there. But urban India today? It's collapsing under its own weight. Air and water pollution is rampant, the slums are sprawling, basic amenities like drinking water and sanitation are woefully inadequate, unemployment is high and so is the crime rate. There clearly is no justification for the sweeping nature of the statements and inferences made in the bank's strategy because large parts of the rural world are even today extremely well endowed, rich and powerful. There are areas full of vigour and vitality, where communities have lived and continue to live in peace, happiness and in reasonable harmony with their environments. Thriving economies survive here, which, in a country like India actually drive national development.

So what does one make of this revised strategy of the bank? For one, it puts a huge question mark on the credentials of the bank itself. The confusions are obvious, contradictions are stark and the underlying concept so flawed, that it's difficult to believe it's even been articulated. If the foundation itself is so shaky, one can only shudder to think of the edifice that it will support.

Can this strategy then really contribute to saving forests and helping the poor? Answers can surely be attempted, but the moot question is, will anybody be listening?. (WRM Bulletin Nº 68, March 2003).

Indonesia: The bitter oil palm harvest

Indonesia is a good (bad) example of how a country can increase exports and GNP through the depletion of its natural resources – particularly forests – and the violation of human and territorial rights of vast sectors of its population. It is not only concerned social and environmentalist organizations who have been denouncing this. The Report on Indonesia published last January by the Operations Evaluation Department of the World Bank reads: "The gains in economic growth, however, have come at a significant environmental cost: sustained and rapid destruction of natural forests".

The expansion of oil palm monocultures – together and associated with illegal logging and arson – has been one of the main causes for the country's forest degradation and destruction. Disregarding its negative social and environmental impacts, both the government and the International Monetary Fund, as well as the World Bank, have been boosting oil palm plantation and industrialization in order to convert Indonesia into the first world exporter of oil palm. The aim is to take Malaysia's place as the world's largest palm oil producer by the year 2012. The customary land rights and resources of indigenous peoples are being completely ignored by State and private companies that rush to invest in the crop. The normal practice for companies is to clear allegedly degraded forest lands, and to offer in exchange minimal compensation (if at all) and badly paid

work on the plantations to local people. The government-sponsored transmigration programme has also been used to provide cheap labour, provoking at the same time severe ethnic conflicts with the forests dwellers.

The oil palm plantation model has proved to be far from the "panacea" for national economy recovery, as trumpeted by its national and foreign promoters. Cases of territorial and human rights abuses have been denounced in South Sumatra, East Kalimantan, and Central Kalimantan. Violence against local dwellers, exploitation of workers, and actions of resistance by the people who bravely oppose the loss of their land and livelihoods are an everyday issue.

A recent setback to this activity adds to the problem. In October 1999 the first shipment of 85,000 tonnes of palm oil was rejected by buyers in the Netherlands because it was contaminated with diesel oil, what led to a sharp fall in export orders for the product. The importers have also placed a ban on further shipments and demanded that the source of the contamination be identified, those held responsible be punished and better testing facilities be installed.

National and abroad-generated factors put together lead to the same conclusion: the expansion of oil palm plantation in Indonesia – expected to reach 330,000 hectares a year – will cause but further environmental destruction and desolation for forest and forest-dependent peoples, and do not constitute a reliable source of incomes for Indonesia. (WRM Bulletin Nº 32, March 2000).

Indonesia: Exploring the past and future of oil palm

A research recently performed on oil palm plantations in Indonesia studies the past and future trends of the sector, reveals its effects on the country's economy, local communities and forests and proposes recommendations to this regard.

The rapid growth of the sector from 1967 to 1997 (planted areas increased 20-fold and crude palm oil production augmented at an average annual rate of 12%) can be considered a success from the point of view of conventional economy. Nevertheless, the author stresses that, "the rapid growth of the oil palm sub-sector has displaced local communities, resulted in social conflict, contributed to the devastation caused by the 1997/98 forest fires, and posed a significant threat to Indonesia's existing forest cover".

Due the economic crisis initiated in 1997, a slowdown in area expansion and palm oil production took place. The research mentions internal and external causes for this decline, as social unrest and the consequent withdrawal and withholding of foreign investment, credit access difficulties, an increase in production costs, the decline in the world price of crude palm oil, and the drought and fires promoted by the 1997/98 El Niño phenomenon. Nevertheless, as some of the above mentioned factors changed and others appeared – e.g. the availability of land cleared through the fires subsequent to the El Niño related

forest fires, a predicted growing global demand for palm oil, and the cooperation established between Indonesian and Malaysian palm oil producers to push up the price of this product and regain their niche in the world market – there are signs that from 1999 on palm oil production in Indonesia will return to the previous pace of growth. Many companies increased their planting targets for 1999 and crude palm oil production was expected to increase about 12%.

It is not sure that the new Wahid-Soekarnoputri government will uphold the same policy of oil palm plantations' promotion implemented by the Suharto and Habibie regimes. Nevertheless, since obtaining external revenues is a priority for the government and palm oil is mainly exported, there is a high probability that this will happen. In such case, "unless there are fundamental changes in the way forest land is allocated in Indonesia, further expansion in the oil palm sub-sector will continue to pose a significant threat to Indonesia's forest cover" emphasises the author. Additionally, she proposes several recommendations in order to mitigate negative social and environmental effects of such development. The regionalization of concession granting according to the present situation of forests in the country, the consideration of environmental impacts by state owned companies, and the need to consult local communities before any project is implemented are some of the points to be highlighted. (WRM Bulletin Nº 34, May 2000).

Indonesia: A new victim related to Indorayon

Indorayon's pulp and rayon factory (PT IIU) in Porsea, North Sumatra, has provoked a long socio-environmental conflict in the region, where villagers and local NGOs have been demanding its closure – due to the pollution affecting Lake Toba because of the factory effluents, the destruction of the forests of the area and the plantation of tree monocultures to obtain raw material – while the mill's workers want to keep it open in the absence of other job opportunities in the region. In March 1999 the government – which has proved unable to find a fair solution to the problem – decided to temporarily close the factory on environmental reasons. But recently it decided to give a permission for the reopening of the mill.

Unfortunately, the situation of confrontation and violence in the area has not ended. On the contrary it has recently claimed a new victim: Herman Sitorus, an engineering high school student who was shot by a North Tapanuli police officer on June 21st. The incident happened when the police repressed a demonstration by a crowd from Porsea at Parparean City demanding the release of thirteen villagers from the Joint Community Post at Sirait Uruk who had been kidnapped by unidentified armed men the night before. The condition of a further 27 people remains unknown.

WALHI (Indonesian Forum for the Environment) condemned this senseless death and urged the government to establish an independent team to investigate the case. WALHI also urged the Police Chief to immediately clarify the use of force against the villagers and claimed that the police were legally, morally and materially responsible for the incident. Regarding the unsolved conflict of Indorayon the government was urged to postpone the reopening of the factory until a comprehensive study on its environmental impact is performed. (WRM Bulletin Nº 36, July 2000).

Indonesia: The pulp and paper sector's unsustainable growth

A recent study, sponsored by CIFOR and WWF International's Macroeconomics Program Office, provides an in-depth analysis of the features and consequences of the rapid expansion of the pulp and paper sector in Indonesia during the last decade.

Concerned Indonesian NGOs have for years been denouncing the severe process of deforestation and forest degradation affecting the country and the role played by the pulp and paper industry in this respect. The CIFOR/WWF-sponsored study reveals some interesting facts and figures, which show that such allegations were well founded. Since the late 1980s, the Indonesian pulp and paper industry has grown by nearly 700 %. Investments in pulp and paper processing capacity have far outpaced the development of pulpwood plantations and as a result, most of the raw material has come from the clear-cutting of forest – mostly illegally – resulting in the deforestation of over 800,000 hectares per year. To understand the importance of the pulp and paper sector in the country's overall deforestation, it is important to point out that according to the World Bank, deforestation rates reach one million hectares annually, which would mean that this sector is the major actor in the destruction of Indonesia's forests. Even taking into account the NGO figures on deforestation – which they estimate in some 2.4 million hectares/year – this sector would also be considered at the top of the list. The study states that the sector will suffer a growing fibre supply deficit over the next 5-7 years, which will have further implications for the country's forests.

The study reveals that many pulp and papers projects now in operation entail a substantial decree of financial risk, since several companies have made investments in infrastructure without first securing a legal and sustainable raw material supply. The seemingly irrational behaviour of the investors is explained by the fact that the owners have been able to avoid much of the financial risk involved by taking advantage of the government's subsidies, including the provision of pulpwood fibre at costs well below its value, the weak regulations reigning in the country for the financial sector and the failure on the part of international financial institutions to adequately assess the risks involved in

pulp and paper industry investments. Poor corporate governance of large-scale pulp and paper companies – promoted by the Indonesian Bank Restructuring Agency (IBRA), which allowed companies in bankruptcy to continue operating under their pre-crisis management teams – is also mentioned as a factor for the present crisis.

In sum, the research illustrates on how unsustainable the "Indonesian economic miracle" in the pulp and paper sector has been. After a decade of unbridled growth, based on the destruction of the country's forest heritage, the expansion of tree monocultures, the violation of indigenous peoples' land rights, and the spread of social conflicts between local peasants and industrial workers, the result is negative even adopting the limited approach of conventional economy.

The case of Indonesia shows clearly that the much publicized myth that plantations help to alleviate pressures on native forests and consequently help to preserve them is totally false. On the contrary, they constitute a major factor for their destruction, given that enormous areas of forests are actually being cut and set on fire to make way for pulpwood plantations. (WRM Bulletin Nº 41, December 2000).

Indonesia: Pulp and paper industry menace in South Kalimantan

In spite of its proven ecological, social and even economic unsustainability, the Indonesian pulp and paper sector continues to expand. The construction of a pulp plant in South Kalimantan planned for June 2001 is provoking concern among environmental organizations. The 600,000 tonne/year plant at Sungai Danau in the Kotabaru District, which would be the first in the region, is part of an official plan to attract various industries and foreign investment to the area. The South Kalimantan local government, that is enthusiastic about an industrialisation programme – which also includes mining and a new cement plant – is backing the initiative. Transnational capitals are ready to make the investment. A millionaire joint venture has been formed between Indonesian timber company PT Marga Buana Bumi Mulia and a consortium of foreign investors from eight countries, which have not yet been completely identified. According to the national newspaper Kompas, the Holland-based company Akzo Nobel is involved in the project. A group of German companies, contacted by the South Kalimantan authorities last year during the Expo 2000 in Hannover, are supposedly also taking part in the initiative. PT Marga Buana Bumi Mulia is owned by Probosutedjo, step brother of former dictator Suharto, who is currently under investigation for the collapse of a bank he was heavily involved in, and has been severely questioned for the misuse of about US$15.5 million he received from the Reforestation Fund to a 70,000 hectare tree plantation in Menara Hutan Buana. Suharto's times seem not to be completely over regarding corruption in Indonesia.

Raw material for the projected pulp mill will be obtained from 240,000 hectares of plantations of acacia, pines, and albizia, 80,000 of which are owned by Probosutedjo. However it is feared that, as usually happens, timber from natural forests in East and Central Kalimantan will also be used, since most forests in South Kalimantan have already been cut down. The promise of employment and prosperity for local communities could not be absent. A local official is reported to have made the absurd claim that the plant will employ 20,000 people in the construction phase and 200,000 workers once operational. But as a matter of fact no-one knows exactly what will happen with the new plant in relation to jobs. It has not been revealed who are funding the initiative and who is responsible for the consultancy work, but the German Export Credit Agency is known to be involved.

Even though a spokesperson of the local Forestry Department dismissed NGOs' fears that the new plant in South Kalimantan would generate the same kind of problems as the Indorayon plant in North Sumatra, according to the history of this industry in Indonesia it is reasonable to expect that negative environmental and social impacts will occur. Concerned NGOs are preparing a national workshop on "Export Credit Agencies and the pulp and paper industry in Indonesia", to take place next April. Local people and NGOs of regions with pulp and paper mills will be present. The event is considered a strategic meeting to fight the pulp and paper industry and in particular to stop the new project. (WRM Bulletin Nº 43, February 2001).

Indonesia: Million hectare oil palm plantation programme in Jambi

Jambi province, Sumatra, is one of a number of areas where the newly empowered regional government is pushing for major expansion in oil palm plantations. The provincial governor has announced plans to develop a million hectares of oil palm in the province by the year 2005. Last year, the provincial authorities threatened to cancel the licences of 49 plantation companies which had been allocated over 700,000 hectares in Jambi but had not yet planted it with oil palm. In December, Malaysia's ambassador to Indonesia announced that Malaysian companies were ready to take over around 356,300 hectares of oil palm plantations in the province that current lease-holders had failed to develop. Jambi currently has around 265,000 hectares of oil palm plantations, of which 200,000 hectares were in production last year. About 320,000 tonnes of crude palm oil was produced by 13 processing plants with a total capacity of 640 tonnes per hour.

In January 2001 governor Zulkifli signed a Memorandum of Understanding with a US-British-Swiss venture capital consortium, Asian Jade Venture Ltd, based in Johor Baru, Malaysia. The agreement covered investments of US$500 million for oil palm plantations, downstream processing industries, a port, a new town and for the tourism and fisheries sectors.

The local environmental NGO, WALHI Jambi, has issued a statement rejecting the million hectare oil palm programme, arguing that it would destroy forests, and wipe out the sustainable livelihoods of communities living near the forests. WALHI has also accused the authorities of failing to indicate where the new plantations will be developed and argues there isn't enough available land to develop such a large area. WALHI says that the focus should be on improving conditions and resolving conflicts between farmers and plantation owners at existing oil palm plantations.

WALHI's press statements – and the apparent second thoughts of Asian Jade Ventures Ltd – have provoked a furious response from governor Zulkifli. He has accused the NGO of being anti-investment, anti-progress and anti-regional autonomy. The governor and his supporters are believed to be behind a campaign of intimidation, launched by suspect 'NGOs' calling for WALHI to be shut down. This has involved trucking 300 protesters to demonstrate at WALHI's office, and issuing statements of support for the governor's programme. (WRM Bulletin Nº 47, June 2001).

Indonesia: WWF report links oil palm plantations to widespread deforestation

Indonesia ranks among one of the countries with the highest tropical forest loss rate in the world. Average annual deforestation recorded up to one million hectares in the 1980s, 1.7 million hectares in the first part of the 1990s, and between 2.0 and 2.4 million hectares at present according to statistics of the State Ministry of Environment.

As we have already exposed, Northern-driven global policies imposed by multilateral agencies – International Monetary Fund and World Bank – in the 80's, and the pressure of a large external debt burden, led to a drastic increase of natural resource exports, including palm oil which is obtained from oil palms cultivated in a system of large-scale monocrops. Oil palm became a lucrative crop for investors in Indonesia since labour and land costs are often low, credit is easily available and weather and soil conditions are favourable.

The world demand for palm oil is greedy. It is forecast to increase from its present 22.5 million tonnes a year to 40 million tonnes in 2020. India, China, the Netherlands and Germany are the main importers of crude palm oil, the primary product derived from the palm's fruit and used for a wide range of food and non-food products. The global trade chain counts on funds provided by foreign financial institutions from Europe, the US and eastern Asia. Sumatra, Kalimantan and West Papua are the main areas in Indonesia where big conglomerates such as the Salim Group, the Raja Garuda Mas Group and the Sinar Mas Group operate. They are the same conglomerates that control logging, wood-processing and pulp and paper industries.

All this business has been at the expense of former forest lands in Indonesia's lowlands and rural peoples' livelihoods. According to a recent WWF report on "Oil Palm Plantations and Deforestation in Indonesia", published in December 2002, "In Indonesia, nearly seven million hectares of forest had been approved for conversion to estate crop plantations by the end of 1997, and this land has almost certainly been cleared. But the area actually converted to oil palm plantations since 1985 is about 2.6 million hectares", destined for export to feed the palm oil industries. "One of the regulatory changes in the oil palm sector introduced in 1998 is that state forestry companies are allowed to use 30 per cent of their concession areas for estate crops such as oil palms". What is worrying is that they usually have concessions in permanent forest land.

The big oil palm companies have encroached on common lands without consulting or adequately compensating the many million people living in the forest or depending on it for their livelihoods. The issue of land rights has been at the core of conflict: "oil palm plantation development remains a major cause of conflict over land and resources. One of the social impacts of the expansion is the appropriation of large areas of land used by indigenous and peasant communities who, in most tropical countries, have not owned the land they traditionally occupy. In boom sectors where economic stakes are high, such as the oil palm sector, plantation companies may be awarded concessions or land titles to that land and receive government support to repress the opposition they may face from local communities", says the WWF report.

To complete the circle, large-scale oil palm plantations have been at the root of the forest fires that have been ravaging Indonesia since 1997. According to the report, "In September 2002, satellite information revealed that more than 75 percent of the hot spots recorded in West and Central Kalimantan during August occurred in oil palm plantations, timber plantations and forest concessions. This indicates that the pattern which became evident in previous years is repeating itself in 2002: logging and estate companies clear land by setting fire to natural forests on their concessions after removing valuable timber and leaving fire-prone debris."

A bilateral project between Indonesia and the European Union (the Forest Fire Prevention and Control Project), "concluded that the main permanent solution to Indonesia's fire problem lies in much improved local level land use planning and strengthened local management, the latter including fire prevention. The project found that village-level views on natural resource management vary from place to place but are generally in line with 'wise use'".

The above conclusion is not new and Indonesian organizations have for years been insisting on the need to ensure community control over forests as the means of achieving both forest conservation and local peoples' livelihoods. What is new is the official recognition that "village-level views on natural resource

management are generally in line with 'wise use'". This is at least a step in the right direction. However, a number of questions need to be raised. Is the government willing to change course and strengthen local resource management at the expense of national and transnational corporations operating in the oil palm sector? Will the IMF and the World Bank support this approach which would in fact mean a halt to further oil palm – and palm oil exports – expansion? Will forests and peoples' interests finally prevail over corporate profits and macroeconomic export-oriented policies? (WRM Bulletin Nº 66, January 2003).

Indonesia: Report on paper industry's abuses on human rights

"Indonesian police and company security forces are responsible for persistent human rights abuses against indigenous communities involved in the massive pulp and paper industry in Sumatra", Human Rights Watch said in a new report released on January 7, 2003. Abuses include land seizures without compensation and brutal attacks on local demonstrators.

"Without Remedy: Human Rights Abuse and Indonesia's Pulp and Paper Industry", a 90-page report, extensively documents the underlying links between disregard for human rights and unsound forestry practices.

Indonesia's pulp and paper industry has rapidly expanded since the late 1980s to become one of the world's top ten producers. But the industry has accumulated debts of more than US$20 billion, and expanding demand consumes wide swathes of Sumatra's lowland tropical forests. This land is claimed by indigenous communities, who depend on them for rice farming and rubber tapping. The loss of access to forests, together with companies' hiring from outside the province, has been devastating to local livelihoods, leading to violent conflicts.

Asia Pulp & Paper (APP) is Indonesia's leading paper producer, and owner of one of the largest stand-alone pulp mills in the world, the Indah Kiat mill in Riau, Sumatra. The mill's primary fiber supplier, Arara Abadi, established its pulpwood plantation in the 1980s-90s, under then President Soeharto. Arara Abadi, backed by state security forces, routinely seized land for the plantations from indigenous communities without due process and with little or no compensation.

Since the fall of Soeharto in May 1998, local residents have attempted to press their claims, but have met with unresponsive law enforcement. With no remedy for their grievances, communities have increasingly turned to vigilantism. Arara Abadi has responded with violence and arrests.

In its new report, Human Rights Watch details three cases in 2001 in which local villagers in Mandiangin, Betung, and Angkasa/ Belam Merah, frustrated by unresolved disputes with Arara Abadi, set up blockades or began logging plantation trees. Hundreds of club-wielding company militia attacked residents, seriously injuring nine and detaining sixty-three. Indonesian police, who trained

the civilian militias and also were present during the attacks, were complicit in all three cases. Incidents of ongoing violence against villagers refusing to give up their land to APP suppliers continued to be reported in Riau last year.

Out of hundreds of assailants, Human Rights Watch is aware of only two who were brought to trial, and those two, convicted of assault and battery, were released after thirty days' time served. Human Rights Watch does not condone illegal actions by protesting villagers, and recognizes the company's need to protect personnel and property. But the use of excessive force by company-funded militia cannot be justified, and impunity for those responsible for the beatings is directly fuelling the cycle of vigilante justice. Further abuses are likely to continue under current conditions of impunity, financial pressure, and lack of internal corporate guidelines for security, Human Rights Watch warned.

The majority of police and military spending (70 percent) comes from off-budget business ventures, many of which are in the forestry sector. These business ties set up an economic conflict of interest in law enforcement. In addition, Arara Abadi's security personnel have no guidelines for the use of force and are not held accountable for violations of the rights of local people. (WRM Bulletin Nº 66, January 2003).

Indonesia: Reopening of Indorayon pulp mill encounters strong local opposition

The reopening of the PT Inti Indorayon Utama paper and rayon pulp mill, in Porsea, North Sumatra, has caused strong local opposition to resume. The factory is located at the centre of a densely populated district near to Lake Toba, one of the largest fresh water reservoirs in South East Asia, and releases pollutants, often unfiltered, into the environment, pollutes the water and air in the region and destroys the local Batak population's basis for life. During the 1990s, scientific evidence demonstrated that the mill was responsible for the damage caused to the health of the local population: skin diseases, respiratory illnesses and damage to the nervous system are consequences of the production of pulp and rayon. Furthermore, land clearing, essential for production, has had a devastating impact on local farming: landslides, uncontrollable fluctuations in the water supply, damage to plants and fish. Local people have been opposing for a long time the mill and the plantations that feed it.

Indonesian churches and NGOs which have joined the protest against the reopening of the factory are supported by the United Evangelical Mission (UEM). In a letter to the Indonesian President Megawati Sukarnoputri, the UEM, together with Misereor, the Diaconical Work of the Evangelical Church in Germany, Watch Indonesia! and INFID, appeals to the Indonesian government to refrain from reopening the mill, to avoid risks to the population and the environment.

Although environmentalists and the then Indonesian Minister for the Environment had already warned of the foreseeable consequences from the outset, the project was implemented under the patronage of former ruler Suharto. After the downfall of Suharto, and as a result of the massive protests by the people, production was temporarily stopped, but since then the company has been fighting incessantly for production to be resumed – as it turns out, successfully. Although the Indonesian Minister for the Environment had recommended the final closure of the plant at the beginning of 2000, the government gave the company management permission to resume operations in November 2002. Since then, there have been recurring violent clashes between the local population and the police, leaving eighteen demonstrators imprisoned, among them two pastors from the Batak Protestant Christian Church (HKBP), one of the UEM's member churches.

Local NGO KSPPM and the North Sumatra branch of environmental group WALHI are also supporting the protestors. Local groups set up a crisis centre and kitchen in the neighbouring town of Tarutung to help victims of the conflict. A Porsea man in hiding in Jakarta said: "The government does not care about the environment – about the damage Indorayon has caused – or about what the local people want. The government takes the company's side, but 90% of the community don't want Indorayon here." (WRM Bulletin Nº 67, February 2003).

Japan: Paper industry involved in genetic engineering of eucalyptus

In spite of the potentially devastating impacts it might entail, Japanese paper manufacturers are carrying out research on genetic engineering aimed at the "creation" of trees yielding more cellulose.

Eucalyptus is the most widely used tree by the paper industry as raw material for the production of cellulose. The wood from this tree is composed of more or less equal quantities of cellulose and lignin and therefore the latter needs to be removed to obtain cellulose. In their quest for more profits, paper companies are thus working to genetically modify eucalyptus so that its wood will contain less lignin and more cellulose.

Several strategies are being developed with this aim. Nippon Paper Industries' research aims at blocking genes that adjust various stages of lignin synthesis, and its output is a genetically modified eucalyptus that produces less lignin and more cellulose, thus yielding 5% more pulp. Mitsubishi Paper Mills has developed a recombinant eucalyptus that comprises 14-16% less lignin, expecting to yield 10% more pulp, while Oji Paper focuses on facilitating removal of lignin during the pulp-making process to cut manufacturing costs and also to reduce the amount of bleaching agents needed for pulp production.

It is important to underscore that Oji Paper – Japan's largest paper manufacturer – owns a total of 200,000 hectares of fast-growing plantations overseas, distributed in Papua New Guinea, New Zealand, Australia and Vietnam. Now it is planning to increase its annual overseas paper production 20 fold (to one million tons), counting on expansion in other Asian countries through mergers and acquisitions, with an investment of some US$ 124 million. China is one of the major targets, as well as Thailand, Vietnam and Indonesia.

As of the end of 2000, Japan's paper industry had some 140,000 hectares of plantations in Japan itself, and some 280,000 hectares abroad. By 2010, the area overseas is expected to reach 430,000 hectares and much of the latter might eventually be composed of genetically modified eucalyptus plantations. (WRM Bulletin Nº 49, August 2001).

Laos: Subsidies for Swedish profits in the forestry sector

On 7th November 2000 the formal opening of a US$2.9 million laminated-wood processing factory took place at Nabong Farm, 30 kilometres from Vientiane, the capital of Lao PDR. The factory will initially sell timber pallets to IKEA, the Swedish retailing giant, and in future will produce furniture under the trademark Vicwood. Financing came from a series of loans – US$550,000 from IKEA, US$800,000 from the International Finance Corporation, the private sector arm of the World Bank, and US$300,000 from Swedfund, the Swedish IFC counterpart. The timber will come from Burapha's 1,200 hectares of *Eucalyptus camaldulensis* plantations, and from the Asian Development Bank's Industrial Tree Plantations project, which aims to establish 10,000 hectares of plantations in Laos.

Burapha's publicity materials claim that the factory will bring "beautiful hardwoods" to "discerning world markets without devastating the natural tropical forests". However, while IKEA has found a new source of cheap timber, with or without Burapha's factory project the logging of Laos' forests continues.

The Burapha Group is structured perfectly to gain the most from the subsidies available for plantation development in Laos. The company is a subsidiary of the Swedish forest industry company Silvi Nova AB, and in Laos consists of three companies: BAFCO (Burapha Agroforestry Co. Ltd.); NAFCO (Nabong Farm Co. Ltd.); and BDC (Burapha Development Consultants Co. Ltd.). The first two companies are commercial ventures – BAFCO produces and exports wood based products from its own plantations, and NAFCO is a dairy farm which supplies Vientiane with dairy products, chicken and eggs. BDC however plays a very different role, being the largest consulting firm in Laos, providing advice on financial analysis, engineering, environment, forestry, agriculture and livestock and rural development.

In the early 1990s Burapha Development Consultants (along with Jaakko Poyry) won a contract for consultancy services for the Asian Development Bank's US$16 million Industrial Tree Plantations Project. Today, the Burapha Group factory in Nabong buys timber from eucalyptus plantations established under the ADB project.

In 1995 Jaakko Poyry and Burapha produced a report for the ADB commenting on the Lao Government's laws on plantations, Directive 186. Among the consultant's recommendations were that export taxes and transport taxes should be reduced. In other words, the consultants recommend increasing their company's profits at the expense of villagers' land and livelihoods.

When the Lao Government gets advice from forestry consultants through a project funded by the Asian Development Bank, it may believe that it is getting the best advice that money can buy. In Burapha's case however there is a clear conflict of interest. The company is providing advice recommending more subsidies through the ADB to produce cheap timber which Burapha then buys and exports. No wonder that a Burapha representative in Vientiane said about the ADB project, "The project for Burapha has been a success, I'm not sure about the project as a whole". (By: Chris Lang, WRM Bulletin Nº 40, November 2000).

Laos: Asian Development Bank subsidising deforestation

Lao government officials, international aid agencies and forestry consultants are almost unanimous in claiming that large-scale reforestation is urgently needed in Laos to address the problems associated with deforestation. Yet, under the Asian Development Bank's US$11.2 million "Industrial Tree Plantation" project, forests are being further destroyed and replaced by monoculture plantations. The beneficiaries are private companies such as BGA Lao Plantation Forestry Ltd, which is currently establishing 50,000 hectares of eucalyptus plantations in Khammouane and Bholikhamsay provinces. The timber from the plantations will be exported as wood chips to Japan via the deep sea port of Cua Lo near Vinh in Vietnam.

BGA has received direct or indirect subsidies from the governments of Laos and Japan as well as from the Asian Development Bank. Without these subsidies the project would probably not be commercially viable. As it is the subsidies are accelerating deforestation.

The Lao government handed over the land for the plantation rent-free for the US$30 million, 50-year project in return for a 5 per cent share in the project. The government then bought a further 10 per cent share in the scheme. Under Lao Forestry Law plantations are exempt from land tax, and BGA pays only 5 per cent income tax on its operations.

The government has allowed BGA to carry out the land allocation programme, in the areas where the company plans to establish plantations. A representative of BGA explained, “BGA does the land allocation. So far 10 villages have been mapped.” When asked whether any villagers were reluctant to have plantations on their land, he replied, “No. We did the presentation, so no one said no.”

The three companies originally forming BGA were: General Finance (a Thai finance company); GF-Brierley, a 50-50 joint venture between General Finance and Brierley Investments Limited (founded in New Zealand, but now registered in Bermuda with its head office in Singapore) and Asia Tech (a Thai plantation company). GF-Brierley also held a 22 per cent share in Asia Tech.

With the onset of the Thai financial crisis in mid-1997, Asia Tech pulled out of the project. General Finance was one of 56 finance companies closed in 1997 by the Thai government because of mounting bad loans. In August 1998, Thailand’s central bank filed criminal charges against six executives of General Finance. The six were charged with extending US$8 million in loans without proper valuation of the collateral. Brierley and the Lao Government have thus become the only partners in BGA.

The head of General Finance, Narongchai Akrasanee apparently played a key role in laying the foundations for BGA’s investment. As well as being director of several other Thai and regional companies, he has been advisor to several Thai Prime Ministers and in 1997 Narongchai was the Thai commerce minister.

In March 1997, he took part in a three-day official visit to Vietnam with the Thai foreign minister, Prachuab Chiyasarn. According to a report in the *Bangkok Post*, the Thais “expressed great interest in Routes 8 and 9”. Route 8 links Thailand’s Nakhon Phanom province with Laos’s Khammouane and Vietnam’s port city of Vinh, and its rehabilitation was crucial for exporting wood chips from the BGA project. The Japanese government funded the rebuilding of Route 8.

During his Vietnam trip, Narongchai also discussed the problem of delays in exporting goods caused by bureaucratic red tape at Lao and Vietnamese borders. The Asian Development Bank subsequently arranged a series of studies and workshops to discuss ways of alleviating delays at customs, and in November 1999 the transport ministers of Thailand, Laos and Vietnam signed an agreement aimed at removing the restrictions on transporting goods between the three countries.

When BGA completes its wood chip factory, electricity will come from the nearby 210 megawatt Theun Hinboun dam. Funded to the tune of US$60 million by the Asian Development Bank, the dam was completed in 1998. Since the dam was closed it has caused massive problems for people living nearby, who have seen the fisheries in the river destroyed along with their livelihoods.

In 1999, BGA received funding under the ADB's Industrial Tree Plantation project, and last year 70 per cent of BGA's expenses came in the form of concessionary loans from the ADB project.

So far BGA has only established around 650 hectares of plantations, but villagers are already seeing their swiddens and forests converted to monoculture eucalyptus plantations. In Ban Lao Kha, BGA cleared areas of dense natural forest before planting eucalyptus trees. Villagers in Ban Lao Luang report that they have to walk further to collect mushrooms and other forest products, and wildlife such as mice and birds have moved to remaining forest areas away from the plantations. BGA sprays the regenerating forest between the rows of eucalyptus trees three times a year with the herbicide glyphosate, making sure that the plantations remain monocultures. (By: Chris Lang, WRM Bulletin Nº 43, February 2001).

Laos: Freedom of information, industrial tree plantations and the ADB

Few large-scale industrial tree plantations have so far successfully been developed in Laos. However, companies and aid agencies are keen to promote them through changing Lao forest policy and through subsidies. The Asian Development Bank (ADB) is leading the push for plantations in Laos, particularly through its US$11.2 million "Industrial Tree Plantation Project".

In 1999, the ADB funded a study carried out by Fortech, an Australian forestry consulting firm. The study is entitled "Current Constraints Affecting State and Private Investments in Industrial Tree Plantations in the Lao PDR".

The Executive Summary of the report claims that plantation development in Laos "provides opportunities to generate economic growth and development" and argues that "at least one large scale plantation project" should be approved by the end of January 1999. The alternative, according to the consultants, is that "international investors will decide not to proceed in Lao PDR".

The report recommends that the Lao government should carry out several measures to support the plantation industry in Laos. These include (among others): rewriting the Plantation Regulations under the Forestry Law; appointing a "plantation investment coordinator"; preparing guidelines for plantation assessment proposals and a step-by-step guide for investors; collecting and publishing market information on domestic and international forest product markets; and building new roads in "key plantation development regions".

Fortech's recommendations, if carried out, would amount to important changes in Laos – changes to forestry laws and changes to people's local environments. Commons, swiddens, grazing land and community forests would be converted to monoculture plantations. However, the Fortech report is not available to the public. When I wrote to the ADB requesting the report, I received the following reply from Snimer Sahni, project officer at the ADB:

"The document you have requested is an official document. Nevertheless, we had sent you a copy of the executive summary. Since you still wanted the full document, we had sought the concurrence of the Lao PDR Government to release this to you. We have not so far received a response from them."

In response to further questions about why the Bank refuses to issue the report, Ms Sahni replied, "I am not clear why you are specifically focusing on the Fortech report prepared almost three years ago". She recommended that I contact "other stakeholders" and the Lao Ministry of Agriculture and Forestry in order to gain "a more complete picture".

The ADB's policy on Confidentiality and Disclosure of Information took effect on 1 January 1995. According to the Bank's web-site, this policy was "prompted by the realization that the Bank should provide the greatest possible degree of transparency and accountability". The Bank claims that the policy "emphasizes a presumption in favor of disclosure where disclosure would not materially harm the interests of the Bank, its members, borrowers, and private sector clients."

The Bank's objectives for the policy include: encouraging debate; ensuring local participation in decision making; broadening understanding of the Bank's role; facilitating coordination "with others interested in the common goal of development of the region"; and increasing the Bank's accountability.

Of course there have been other developments since 1999 in the development of industrial tree plantations in Laos. However, through withholding this report, the ADB is preventing an open and informed discussion in Laos about such plantations.

Clearly, when it comes to industrial-scale plantations, the ADB is not interested in achieving any of its stated aims regarding local participation in decision making or in encouraging debate. The ADB appears to have reached the conclusion that large-scale industrial plantations should be promoted in Laos and simply does not care about any discussion of the impacts of this decision. (By: Chris Lang, (WRM Bulletin Nº 52, November 2001).

Laos: Secrets, lies and tree plantations

Later this year, the Board of the Asian Development Bank will decide whether to fund a project titled "Tree Plantation for Livelihood Improvement" in Laos. A consortium of consultants is currently preparing the project. However, the preparations are taking place without the benefit of an open public discussion. According to Akmal Siddiq, Senior Project Economist at the ADB, "The draft reports produced so far are not ready for public distribution and will only be available after Board approval."

If the Board agrees to fund the project, it will be the second plantation project that the ADB has funded in Laos. The ADB's US$11.2 million Industrial Tree

Plantation Project started in July 1994, with a target of establishing more than 9,000 hectares of fast-growing tree plantations. According to the ADB's project description, the new project "will build on the successes and lessons learned from the ongoing Industrial Tree Plantation Project."

Last year, Bartlet W. Édes, the ADB's external relations officer, wrote an article about the Bank's involvement in plantations in Laos for the ADB's in-house magazine, ADB Review. In the article, entitled "Back to Trees", Édes wrote that the ADB's project "protects the natural forest, involves local villagers in decision making, and develops a promising new sector in the Lao economy."

In fact, the project does none of these things. ADB-funded plantations are replacing forests with monocultures. Villagers are not meaningfully involved in the decisions which cause them to lose their land and forest to eucalyptus plantations. Economically, the plantations are only viable because of subsidies provided by the ADB and the Lao Government. Under Lao Forestry Law, plantations are exempt from land tax, and the company BGA Lao Plantation Forestry, which benefits from cheap ADB loans, pays only 5 per cent income tax. Meanwhile, the Lao Government gave BGA the 50 year land lease for its plantations rent free, in return for a share in the project.

In his article, Édes stated: "Because plantations are all being established on degraded land – not on natural forest areas – plantation development in the Lao PDR is unlikely to have the adverse environmental consequences associated with establishing plantations witnessed in other Asian countries."

The ADB's project documents contradict Édes statement. According to a 1995 report by consulting firm Jaakko Poyry, plantations are to be established on "unstocked forest land". The ADB's consultants define unstocked forest land as "previously forested areas in which the crown density has been reduced to less than 20%" and "abandoned 'hai'" [swidden fields]. This definition allows companies to describe villagers' community forest, swiddens, grazing and common land as "unstocked forest".

Bartlet W. Édes notes that the ADB project has established "a policy framework for developing sustainable industrial tree plantations." However, neither the policy framework, nor the policy studies produced for the ADB are publicly available.

In 1999, the ADB funded a study entitled "Current Constraints Affecting State and Private Investments in Industrial Tree Plantations in the Lao PDR". Snimer Sahni, project officer at the ADB, stated that the document is not available to the public. The ADB's consultants have since produced a "National Strategy for Sustainable Plantation Forestry". Akmal Siddiq of the ADB declined to answer requests for this document.

According to Bartlet W. Édes, “Tree-planting firms negotiate with villagers for the use of forestlands. Commons, swiddens, grazing land, and community forests are protected by the villagers themselves, who must give their written consent to any commercial use.”

Once again, Édes’ statement is misleading. Villagers do not have the power or sufficient information about the impacts of eucalyptus plantations to bargain with plantation companies. For example, in company documents, BGA classifies up to 48,000 hectares of the land leased to the company as shifting cultivation, grazing land or degraded forest. This is, in other words, land that is currently used by villagers.

Once villagers realise the problems associated with fast-growing tree plantations, they are reluctant to hand over their land to companies. In early 2001, the sub-district leader of Xiang Khai sub-district in Xaibouli district told independent researchers, “Eucalyptus plantations are causing forest, soil and water resource degradation. I do not want anyone to grow any more eucalyptus trees in my sub-district.”

Bartlet W. Édes’ most glaring piece of misinformation is his statement, “Herbicides are not used; rather, a biodegradable product called glyphosate is applied to control weeds.”

Glyphosate is, of course, a herbicide. It is the active ingredient in a range of products manufactured by Monsanto. Monsanto started selling Roundup, its first glyphosate-based herbicide in 1974. Since then annual sales of glyphosate herbicides have soared to around US$1.2 billion. According to the company, “glyphosate herbicides produced by Monsanto are among the world’s most widely used herbicides.”

Monsanto defines its glyphosate products as “broad-spectrum, non-selective herbicides.” Put simply, glyphosate herbicides will kill just about anything green with which they come into contact.

Glyphosate herbicides are sprayed three times a year between the straight rows of eucalyptus trees in the ADB-funded plantations. The herbicide ensures that nothing grows in the plantations other than trees. Villagers’ knowledge and uses of the wide range of plants that grow in the forest are being destroyed as their forests are converted to monoculture.

Perhaps not surprisingly, the ADB is reluctant to encourage an open debate on the impacts of the ADB-funded plantations. The ADB has organised two workshops, which were attended by World Wildlife Fund, World Conservation Society and the World Conservation Union (IUCN). This, according to ADB’s Akmal Siddiq, indicates that the project is being prepared with the “active cooperation of and consultation with all the stakeholders“.

Siddiq declined to answer questions regarding the Bank's previous involvement in promoting monoculture tree plantations in Laos and declined to release any of the project documents. Instead, he stated, "The project feasibility study will be completed by May. Approval from ADB Board is expected by October." (By: Chris Lang, WRM Bulletin Nº 68, March 2003).

Malaysia: Resistance against logging and oil palm in Sarawak

For years, the Dayak indigenous peoples of Sarawak have been defending their forests and livelihoods from the depredatory activities of logging, oil palm and eucalyptus plantations promoted by the Malaysian and the Sarawak state governments. In an unequal struggle, local communities – supported by Malaysian and international social and environmental NGOs – have been resisting the destruction of their forests and the installation of plantations. The issue of land tenure and the recognition of their Native Customary Rights is in the background of this dispute, and local villagers have frequently suffered pressure and brutality from the government's forces while defending their rights.

Last April 2000, people belonging to the Dayak Iban longhouses of Rumah Ketip, Rh Lanyau, Rh. Mulok, Rh. Anchih, Rh. Lipo and Rh. Madak carried out a direct action of protest against logging operations within their native customary rights land in upper Balingian area of Mukah District in Sibu Division, Sarawak, by putting up a human blockade to stop the timber company "Always Yield" from carrying out logging in their lands. The action had been preceded by several requests to government authorities and the police to stop the trespassers' activities, which proved useless.

Additionally, the longhouses of the area are resisting the establishment of oil palm plantations within their native customary rights land by the company Novelpac. Malaysia is the world's largest palm oil producer and the invasion of oil palm plantations has a long history of negative social and environmental impacts, starting with the appropriation of local peoples' lands. Although plantations appear to constitute a more positive activity when compared with logging, they are in fact worse, because land appropriation becomes permanent. As a local person said: "Logging companies destroy our forest and leave. Plantation companies destroy our forest and stay!"

In the disputes between oil palm companies and local peoples, the government takes sides with the former, thereby forcing communities to resort to different forms of resistance. Many of such actions later result in court proceedings. One of such cases is that of a group of 30 Iban from several villages in the Bakong area in Baram, who will have to appear in Court on May 22nd. In 1997 they blockaded the oil palm plantation company Empressa and its contractor Segarakam from trespassing their customary lands, on which the company intended to destroy their crops and set up an oil palm plantation. After failing to

get any response or assistance from the authorities, the Ibans had no choice but to exercise their right of private defence to protect their lands and crops thereon by detaining three bulldozers of the company.

The Company lodged a complaint with the police accusing the Ibans of gang robbery of the bulldozers. On 19th December, 1997, the police went to the Iban village wanting to arrest the village chief for the said offence and to retrieve the bulldozers. The Ibans resisted the arrest on the ground that it was the company which trespassed on their customary lands and which destroyed their crops. In the scuffle, the police fired several shots at the Ibans. Three of them were shot and one who was shot with a pistol on the head died on the spot.

Not content with having the police on their side, the companies hire thugs to intimidate local peoples. This policy has resulted in increased violence and further court proceedings. Now 19 Ibans from Ulu Niah are being charged with the murder of four Chinese gangsters whom a plantation company paid to intimidate and harass the Ibans for opposing its oil palm plantation activities in their traditional lands and will have to appear in court on May 19th. (WRM Bulletin Nº 34, May 2000).

Malaysia: Campaign against plantation and pulp mill project in Sabah

A plantation project that would occupy about 3% of the area of Sabah, in northern Borneo, and provoke the clearcutting of 6% of its dwindling primary forests is being promoted in Kalabakan by a joint-venture between the State-owned company Innoprise Corporation Sdn Bhd, Lions Group of Malaysia and the China Fuxing Pulp and Paper Industries of China. The plantation and pulp and paper mill megaproject, whose cost has been evaluated in US$ 1.1 billion, will require the felling of 240,000 hectares of forest to be replaced by a massive monoculture plantation of black wattle trees (*Acacia mangium*) – also known as dry acacia or mangium tree – a fast growing tree native to Australia.

The project has sparked criticism because of its expected impacts and for not having even adhered to the weak legal environmental requirements existing in Sabah. According to the Sabah Conservation of Environment Prescribed Activities, any forest which is cleared for the felling of timber covering an area of 500 hectares or more or any development of forest plantation of 500 hectares or more requires an Environmental Impact Assessment (EIA). Nevertheless 12,000 hectares of the land of the proposed project have already been logged without a single EIA done. Innoprise Corporation has claimed that no EIA is required since the logging operation was approved before the State EIA requirement was enforced, and announced the logging of another 33,000 hectares. The company completely ignores the Federal Government's Environment Quality Act of 1974 and the Environmental Quality Order of 1987

which oblige to perform EIA for these kind of activities. Sahabat Alam Malaysia (SAM) – Friends of the Earth Malaysia – has denounced that by allowing the logging to proceed without an EIA, the Sabah Government is completely disregarding the environmental impacts of the logging activities and is manipulating the law in favour of the interests of big companies and to the detriment of forest conservation.

It is reasonably feared that this huge plantation will provoke deletereous impacts on the environment. The plantation area will cut the biggest remaining block of continuous forest in the region which extends between the Danum Valley and the Maliau Basin, both classified as Class One Protection Areas. The area contains high biodiversity levels, including 120 mammal, 280 bird, and more than 2500 tree species. This biodiversity rich ecosystem is in danger of being substituted by a uniform and biodiversity poor agrosystem. Already wild animals are reported to have been sighted more often, probably fleeing from the logged area. Since the land of the proposed project is mostly steep, felling for plantations will expose the soil to direct erosion by rainfall. Sediments could reach the coastal mangrove vegetation in Cowie Bay, depleting marine resources. Consequences are already apparent: with only 12,000 hectares logged the Danum Valley has been recently flooded. Local microclimate will also be affected because often once the rainforest is replaced with a plantation it will dry and heat up. Additionally, this could create negative conditions for the plantation itself, which would become more prone to fires.

The effects of pulping and bleaching are also threatening. The use of chlorine in bleaching the pulp has caused the industry to be the third largest source of dioxin and its related compounds in the world. This problem is further compounded by the fact that Malaysia still has no policy on dioxin damage prevention. Carbon dioxide, sulphur oxides and chloroform are some of the polluting gases emitted by this industry. Furthermore about 300 chemicals, among them organic pollutants, chlorophenicols, acidic and organichlorine compounds have been identified in pulp and paper mill effluents.

To stop further destruction, SAM has called the State Government of Sabah and the Federal Government to halt all further logging activities, take action against the parties that are responsible for logging the 12,000 hectares of forest without an EIA, undertake a comprehensive EIA of the project, seek extensive and genuine feedback from the public in relation to the reviewing of the EIA, review as a whole given the magnitude and scale of its expected environmental impacts. (WRM Bulletin Nº 40, November 2000).

Malaysia: The plight of women workers in oil palm plantations

Women are more than half – around 30.000 – of the workforce in Malaysian plantations, and have been historically employed as unskilled, temporary contract workers doing the most menial and underpaid jobs. Urbanisation and industrialisation has pushed men and the young to work in the new industrial zones while women stay on and continue to take on any job so that they can have a house and basic amenities provided by the plantation company, which are otherwise beyond their reach. Thus, women have played the dual role of providing cheap labour and social stability.

In the early sixties, when synthetic rubber consumption controlled by industrialised countries rose to more than 60 per cent globally, rubber prices dropped sharply. Malaysia rubber plantations could not compete so the plantation sector was under pressure to diversify and introduced oil palm as the alternative crop. The country later became the world's top producer and exporter of palm oil, in a push which has encountered – and still is encountering – strong opposition from indigenous peoples like those of Sarawak, who defend their traditional lands and forests from the devastating monoculture schemes that allow the country to insert in the global economy but at the cost of depriving the people from their livelihood.

The oil palm crops required more intensive 'care' from pests and the use of pesticides became a major requirement. Women were recruited as sprayers of pesticides and fertilisers –30,000 women are estimated to be working as such in the country, most of them Indian. The organisation Tenaganita – or Women's Force – has been working with plantation workers since 1991. The compiled information about the work and life of plantation workers and the case studies of their exploitation as women and as workers has allowed the organisation to voice the plight of those women "poisoned and silenced", in a report produced together with Pesticide Action Network (PAN) Asia and the Pacific.

The study reveals poor maintenance and leaks in the sprays, poor medical care and first aid facilities on the estate, and in some cases lack of protective equipment. Especially for women, the absence of medical monitoring and a total lack of understanding of how they are affected by these chemicals, make it difficult to assess the extent of the impact of pesticides and chemicals on them, on their reproductive health and on their unborn children. But the impacts are very real.

The skin is the body's largest organ; 90 per cent of exposure to pesticides occurs through the skin, and women have a thin skin which predisposes them to a high level of absorption of chemicals into the body. Very few women know that the highest absorption point is the genital area. They experience severe vaginal burning sensations after spraying but suffer in silence since they are

ashamed to state this problem to the hospital assistants that usually are men, so the problem goes unchecked. The common symptoms of fatigue, back pain, very bad headaches, nausea, giddiness, tightness of the chest, chest pains, swelling breasts, are indicative of exposure to organophosphate and carbamate type of pesticides.

Pointing at the accountable players, the report underlines that the owners and the management of the plantations make the decisions on the tasks, the method of spraying, the type of pesticides used, the health care services and the actions taken when a complaint is lodged. The plantation industry has failed to set up safety committees and adhere to the Occupational and Safety Act. And worse, it has not given the workers appropriate information on the poisons they would have to handle and use. Though it is aware of the dangers that these poisons pose, it still continues to use very highly toxic pesticides. However, it has developed strategies so that it will not be made accountable. The industry has structured the task of spraying into the 'sub-contractual work' category. As such, the workers come directly under the supervision of the sub contractor. Many remain as temporary workers, and in this way the industry has abdicated its responsibility. Its concern is only profits and not the lives of the workers who bring in the wealth to the industry.

As for the pesticide industry, though it works closely with the plantation industry without coming directly in contact with the workers, it is responsible to ensure that the pesticides it manufactures and distributes do not poison workers, the public and the environment. However, the industry has not, or has been very slow, in taking action to address these issues, and has often been more vocal in denying that poisoning has taken place.

The Pesticide Board and the Department of Occupational Safety and Health are responsible to ensure protection and safety of the workers from poisons. Overall, there is a lack of monitoring of the sale, use and impact of the poisons in the plantations. The weak implementation of the regulations in the plantation sector has led to women workers being poisoned daily. Besides this, health or medical personnel have not been trained effectively to deal with pesticide poisoning and health. Thus the government is equally accountable for the current health crisis of plantation women sprayers.

The National Union of Plantation Workers (NUPW) though comprised by 60% of women, has failed to address the frightening reality of women workers and their daily exposure to poisons. The leadership has bargained for slightly higher wages for sprayers as a 'high-risk' job. The lack of gender perspective is reflected in the absence of programs for women and lack of women leaders in the Union itself.

The hiring of migrant workers, most of them employed as contract labour, is an emerging issue. Activities are often sub-contracted to businesses or agents

who supply these contract workers to undertake various jobs on the plantation without becoming employees. They are unprotected by all the labour regulations, are highly mobile and face the high risk of being arrested, detained and deported. Thus these workers are also highly vulnerable and face acute risks to their health with no access to medical care or treatment.

Eventually, the reduction or prevention of toxicity related to pesticide usage in the country would entail, among other actions, that the use of hazardous compounds such as pesticides is banned and/or severely restricted, alternatives to chemical pest control are promoted in the country, and the gender perspective is integrated in the analysis of the occupational hazards of pesticides.

A women organisation has spoken loud. It has given voice to the "silenced" in an effort to counterbalance the harmful effects of a failed production pattern of large scale monoculture plantations which is artificial, insecure, and reinforces women exclusion with no benefit for the people at large. (WRM Bulletin Nº 69, April 2003).

Thailand: Sino-Thai eucalyptus project facing opposition

Thailand's villagers are fighting to prevent a 120,000 hectares (ha) eucalyptus plantation project that would lead to widespread forest clearance and threatens the farming livelihoods of hundreds of rural communities in eight eastern and northeastern provinces.

In February 2000, Thailand's Cabinet gave approval in principle for the US$ 1 billion joint venture between the Chinese government and Advance Agro Company. Thailand's Royal Forestry Department (RFD) will provide 40,000 ha of "degraded" forest reserves and the Agricultural Land Reform Office another 80,000 ha for the project. The company will give money to villagers settled in the forest reserves to vacate their land for a 30-year lease. Villagers with legal titles under the Agricultural Land Reform Office (ALRO) will be contracted by the company to plant eucalyptus. The RFD will set up a working committee, comprising representatives of the RFD and the company, that will survey the targeted areas, draw up a land-use map and request final approval from the Cabinet.

Forestry officials at Kao Ang Ruenai Wildlife Sanctuary in Chachoengsao province state that the project will lead to widespread forest clearance as there is no land left for farmers to resettle on. Many of the villagers say they have lived on the land for generations. Most of the villagers have been fighting for decades to get some kind of land ownership document or "sor por kor" but have failed.

Few of them are willing to accept compensation to leave their lands for eucalyptus because there is no vacant land available for them to buy and resettle. For

most of these communities, it is not worth selling their land because the project only lasts for 30 years.

Wiboon Khemchalerm, well-known organic farmer from Chachoengsao province, states that many villagers would be forced to accept money from the company and sell their rights to the land. "However, once the money is gone, and there's no more land to work on, where will these people go?" he asks.

Established by the Soon Hua Seng (SHS) group in 1993, the Advance Agro Company is Thailand's first and largest integrated pulp and paper manufacturer. SHS holds the majority of Advance Agro shares, while the rest are held by Stora Enso of Finland (19.9 percent) and Oji (five percent), Japan's largest paper producer. The company presently operates two pulp mills producing 450,000 tons of paper per year. The joint venture will include a third mill requiring 3.5 million tons of eucalyptus to produce 700,000 tons of paper, mainly for export to China.

The Soon Hua Seng (SHS) group already owns an estimated 32,000 ha (200,000 rai) of eucalyptus plantation in Chachoengsao province, arguably one of the largest contiguous plantation areas of eucalyptus in Thailand.

The SHS group has amassed much of this land using a variety of strong-arm tactics over the past several years. Without official land titles and no recourse to legal assistance, villagers have been forced to sell their lands and forest commons to the company for prices ranging from 1,200-1,500 baht per rai (about US$31-39 per rai; 1 hectare is equal to 6.25 rai). As the eucalyptus trees encircle their farmlands, villagers are left with little choice; many take up contract farming of eucalyptus while others sell their lands and find work in the plantations and the pulp mill.

Sombun Khamkaew of Ban Khao Kluay Mai in Chachoengsao province started growing eucalyptus on 4.8 hectares of land six years ago. Since then, the ponds and streams around his community began to dry up. He states that the money he made from selling the first crop after four years was not worth the investment and his efforts.

"I got only 40,000 baht (about US$1052) after four years of waiting and not counting how much I put in. And its too expensive for me to have the roots dug up and destroyed," he says.

Ms Lum Jumchai, 60 years old and single mother of ten children, fought a six-year legal battle with the company to reclaim 4.5 ha of land in Laemkowchan village in Chachoengsao province. When Ms. Lum refused to part with her land, the SHS group filed a lawsuit for encroachment on private property and provincial police repeatedly threatened to dismantle her house. Assisted by lawyers from the Bangkok-based human rights group, Union for Civil Liberty (UCL), Ms. Lum finally obtained a court ruling asserting rights to her land.

"I plant cassava now. After the court order, the company does not harass me anymore," she says. But she faces problems with her cassava crop because the surrounding eucalyptus plantation is drying the underground water sources and hardening the soil. (By: Noel Rajesh, WRM Bulletin Nº 34, May 2000).

Thailand: Massive eucalyptus plantations planned

Over the last decade or so Thailand has seen repeated protests against eucalyptus plantations. Villagers have taken part in marches, uprooted trees, set fire to plantations, declared their lands "eucalyptus free" and reclaimed plantation land by regenerating community forests. Despite these protests and the problems associated with eucalyptus plantations, Thailand's two largest pulp and paper producers Phoenix Pulp and Paper Plc and Advance Agro Plc are currently planning large scale expansions.

Phoenix plans to more than double its production capacity by adding a 270,000 tonne-capacity mill to its operations in Khon Kaen, at a cost of US$450 million. Advance Agro is planning a new 750,000 tonne-capacity plant in a joint-venture with the Chinese government. The cost of Advance Agro's new mill and the associated eucalyptus plantations is estimated to be US$1,000 million. 80% of the output from Phoenix's new mill would be for export, while Advance Agro's new mill would produce pulp entirely for export to China.

Phoenix management is negotiating with the Swedish and Finnish governments attempting to arrange low-interest loans to fund the expansion. Phoenix funded a previous expansion, Phoenix II, constructed between 1990 and 1994, with interest-free loans from the Finnish and Swedish governments. The Finnish companies Jaakko Poyry, Sunds Defibrator, Ahlstrom, Suomen Puhallintehdas, Sahko Lahteenmaki and Valmet Automation subsequently benefitted from contracts to supply technical advice, designs and machinery for Phoenix II.

Part of the Finnish government's justification for funding Phoenix II with a US$91 million "pre-mixed concessional credit" was that it would help improve the environmental performance of the Phoenix mill. Part of this "improvement" included the misnamed "Project Green", through which Phoenix, since 1994, poured its waste water onto farmers' fields. The waste water is supposed to irrigate farmers' eucalyptus trees, but villagers living nearby report that their underground water sources have become salty, fish in their ponds have died and rice harvests in fields adjacent to Project Green have failed. Hundreds of local villagers filed complaints against Phoenix in 1995 and 1996, resulting in out-of-court settlements totalling around US$80,000. In addition to problems with "Project Green", the Ministry of Industry has repeatedly ordered the Phoenix mill closed on the grounds that it has polluted the nearby Phong river.

In August 1998, the Finnish Minister of Development Cooperation Pekka Haavisto described the loans to Phoenix as "a mistake that Finnida made".

1999 saw the end of a six-year takeover struggle for Phoenix when Lalit Mohan Thapar replaced George Davison as chairman of Phoenix. According to Davison, much of the financing for the takeover came from the Bangkok Bank of Commerce (BBC). The BBC is notorious for its role in one of Thailand's biggest ever financial scandals in which around 200 billion Baht (about US$8 billion at the time) disappeared from the bank. A group of Thai politicians, known as the "Group of 16" used money from the BBC to fund takeovers of Thai companies, including Phoenix. Davison described the takeover as "government condoned theft".

The value of shares in Phoenix has fallen from 140 Baht (US$5.6 at the time) in 1995 to 34 Baht (less than US$1) in June 2000, and the company now has debts of around US$80 million.

Located at Tha Toom in Prachinburi province, approximately 120 km from Bangkok, Advance Agro is one of Thailand's newest pulp and paper mills. Production started in 1996, and in 1998 a second mill came on line boosting capacity to around 310,000 tonnes. The mill was built by the Soon Hua Seng (SHS) Group, one of Thailand's largest companies.

Ten years ago employees of the SHS subsidiary Suan Kitti were arrested for clearing forest to make way for eucalyptus plantations. The resulting uproar prompted then Prime Minister Chatichai Choonhaven to prohibit all commercial "reforestation" in National Reserve Forests.

The mill was originally to be the "Suan Kitti Pulp Mill", but in order to distance itself from public criticism associated with Suan Kitti, SHS swiftly renamed the mill Advance Agro and hired the Finnish-owned Presko public relations firm for advice on minimising any further environmental criticism. CIDA, the Canadian aid agency, subsequently funded the Canadian consultants H.A. Simmons to work for SHS, and the UK Commonwealth Development Corporation (CDC) provided loans and debt finance for the mill.

The company's main shareholders are the Soon Hua Seng Group (56%), StoraEnso, Europe's largest pulp and paper producer (19%), Oji Paper, Japan's largest paper producer (5.5%) and CDC (1%). Stocks in Advance Agro have fallen from 73.48 Baht in 1997 to 17.25 Baht in July 2000, and the company has huge debts of almost US$640 million.

At present the mill obtains its raw material supplies from 31,000 hectares of eucalyptus plantations managed by Agro Lines, a subsidiary of the SHS Group, and 57,000 hectares of eucalyptus grown by 6,000 farmers under contract to Agro Lines.

The proposed expansion of Advance Agro would require a further 40,000 hectares for plantations and another 80,000 hectares for contract farming.

Plodprasop Surasawadi, Director General of the Royal Forestry Department (RFD), stated in March 2000 that his support for the project was conditional on the joint venture "negotiating" with villagers living in forest land and "paying compensation to those who agree to return the land." Villagers would therefore be kicked off their land, paid off, and the land given to the RFD which would then lease it to Advance Agro to grow eucalyptus.

The so-called "degraded forests" which would be converted to monoculture eucalyptus are both valuable to villagers and support local wildlife. According to the Bird Conservation Society of Thailand, the lowland dry dipterocarp forests under threat from both proposed expansions provide habitat for globally threatened birds such as the Rufus-winged Buzzard and the white-rumped Falcon. (By: Chris Lang, WRM Bulletin Nº 36, July 2000).

Thailand: FSC should revoke Forest Industry Organisation certificate

In June 2001, two teak plantations managed by Thailand's Forest Industry Organisation (FIO) were awarded a certificate as "well managed" under the Forest Stewardship Council (FSC) system. The plantations, at Thong Pha Phum and Khao Krayang, were assessed by SmartWood, a non-profit organisation run by Rainforest Alliance, a US-based NGO.

Despite the fact that the certified area covers less than 3.5 per cent of FIO's total plantation area, the certificate enables FIO to claim that it is practising "sustainable forest management". Before the assessment was carried out, FIO's Chittiwat Silapat told the Bangkok Post, "It's a major step towards the end of deforestation and the beginning of sustainable development."

FIO is a state-owned forestry enterprise formed in 1947 with the mandate to manage logging concessions in Thailand. FIO effectively organised the destruction of Thailand's forests until the logging ban of 1989. FIO has also established plantations on 140,000 hectares in Thailand, often without the consent of the local communities who were using the land. Certification under FSC enables FIO to cover up its history and its financial problems, which have become severe since the logging ban deprived the organisation of its main source of income.

SmartWood did not include FIO's history in its assessment. Jeffrey Hayward, SmartWood's team leader in Thailand, explained, "Certification is a way for any forestry operation to demonstrate that it has changed and is changing for the better. We are solution oriented. The past is a vital part of history and development, but how does it impact the present and future?".

This ignores the fact that SmartWood is partly determining FIO's "right to be around" by ignoring the reality of social opposition to its very existence. In

describing SmartWood as "solution oriented" in this context, Hayward is looking for solutions for FIO. SmartWood seems to be prepared to go to great lengths to find these solutions.

There are no FSC national standards and no national initiative to develop such standards in Thailand. In such cases, FSC certifying bodies should develop an interim standard which should be circulated to "stakeholders" one month before the certification decision. SmartWood failed to do so and simply used the SmartWood "Generic Guidelines for Assessing Forest Management".

When faced with criticism that national level consultation with NGOs and civil society in Thailand was inadequate, Richard Donovan of Rainforest Alliance and SmartWood's Jeffrey Hayward responded, "We felt that we needed to aggressively consult with local stakeholders and we did so, not just during the assessment but in subsequent pre-certification visits to Thailand by SmartWood staff."

Yet, villagers living near the two plantations have never heard of either FSC or SmartWood. Somsak Ratanawaraha, the village head man of Ban Nam Tok Poi near Khao Krayang plantation, is listed as consulted in SmartWood's Public Summary of the assessment. When asked about the consultation process in August 2002, he said, "We didn't talk about anything, they only asked me questions. They didn't talk about FSC. They didn't talk about certification at all. They were talking about the plantation and what benefits are coming."

Virawat Dheeraprasert, chairperson of Foundation for Ecological Recovery (FER) a Thai NGO, commented, "Local people have so far been totally unaware of the SmartWood process and the certification. There has been absolutely no local participation. Which means in effect that FSC is supporting a process that violates the very basic principles of Thailand's constitution."

In accordance with FSC rules, SmartWood has produced a public summary of its assessment of FIO's plantations. According to a motion passed at the FSC General Assembly in 1999, public summaries must provide sufficient information "to make clear the correlation between the specific results of the certification assessment and the FSC Principles and Criteria."

SmartWood's public summary does not do this. For example, SmartWood set out 26 conditions which FIO must meet if the certificate is to remain in place, but the public summary does not explain to which of FSC's principles and criteria the conditions relate.

Fifteen of these conditions had to be met either immediately or within one year of the certificate being issued. In August 2001, Donovan and Hayward wrote, "They have to meet our conditions or the certificates will be revoked."

To check whether FIO had in fact met the conditions, SmartWood returned to Thailand in May 2002 and carried out a first year audit. They found that FIO had

failed to meet five of the conditions and had only "partially met" seven more conditions. However, instead of revoking the certificate as promised, SmartWood issued a series of "corrective action requests" with new deadlines.

FIO hoped that SmartWood's first year audit would also include an assessment of five more plantations for potential inclusion in the FSC certificate. However, SmartWood recommended that one of the plantations, Ta Pla, should "not be considered as a potential entrant to the certified pool" on the grounds that "there were land tenure issues" which "would pose a high risk for non-compliance with [FSC's] Principle 2". FIO duly withdrew this plantation from the assessment and SmartWood assessed the remaining four. After a whirlwind six day tour of Thailand, including visits to five plantations, SmartWood concluded that "Regretably, during the on-site audit visits, there were substantive areas that need to be improved to be in compliance with FSC Principles 2, 3, and 5". Further explanation, however, is only available in the "confidential section" of SmartWood's audit report.

Two of FIO's plantations remain certified. Virawat Dheeraprasert said, "The failure to implement the conditions of the first year leads to our demand that FSC must revoke the certification." He added, "It's not necessary to talk of expanding certified areas, right now it is enough that FSC revokes the existing two areas that have been certified." (By: Chris Lang, WRM Bulletin Nº 64, November 2002).

Thailand: Eucalyptus, encroachment, deforestation and pollution linked to pulp and paper company

Advance Agro, one of Thailand's largest pulp and paper companies, markets its "Double A" brand paper as environmentally friendly. The company's advertising explains that the raw material comes from plantations and thus relieves pressure on remaining forest areas.

The reality is that Advance Agro's plantations have displaced communities and are the final stage of deforestation in east Thailand. Kasem Petchanee, the Chairperson of the NGO Coordinating Committee, Lower Northern and Upper-Central Thailand, explained how deforestation started when companies like the state-owned Forest Industry Organisation started logging operations. "Fifty years ago this area was covered in fertile forest," he said.

During its war in Indochina, the number of US troops stationed in Thailand reached a peak of almost 50,000 in 1969. To link their bases in north-east Thailand with the port of Chon Buri the US built a network of major roads. Deforestation followed the road-building. In the 1970s and 1980s, the Thai government built more roads to access the forests of Cambodia.

The World Bank has played a key role in promoting cash crops in Thailand. Among the organisations set up at the Bank's recommendation is Thailand's National Economic and Social Development Board (NESDB), which oversees all public investment planning. Since its establishment in 1959, NESDB has been a major promoter of cash crops grown for export.

Encouraged by NESDB's policies, companies started planting cash crops such as cassava and sugar cane in east Thailand. Conflicts developed over land as companies encroached on people's land and forests. Villagers were forced to grow cash crops and forced to sell their crops to a particular company.

Networks of influence, involving members of parliament, companies, army officers, and a local mafia were established and expanded. Mafia-style murders, land speculation and landlessness became common in east Thailand.

In 1982, the Soon Hua Seng Group (SHS), one of Thailand's leading rice and cassava exporters, started planting eucalyptus in east Thailand as an alternative to cassava. By 1987 SHS was planting eucalyptus on a commercial scale and set up the company Advance Agro to produce pulp and paper.

Today the SGS Group has 32,000 hectares of its own plantations as well as around 50,000 hectares of eucalyptus planted by farmers under contract. In 1996, Advance Agro opened its first pulp and paper mill in Prachinburi province and now has a total capacity of 500,000 tonnes of paper a year. Seventy per cent of Advance Agro's paper is exported, important markets being China, USA, Hong Kong and Japan.

Laemkowchan village is about 100 years old and is close to one of Advance Agro's mills. In the past, villagers grew rice, cassava and pumpkin. When SHS started to look for land to plant eucalyptus many villagers sold the land they had used for cassava planting to the company.

But villagers found that the eucalyptus plantations started to affect their rice fields as well. Suwan Kaewchan, a member of the Administration Council in Laemkowchan village, explained to researcher Noel Rajesh: "When the company came and started planting eucalyptus near the rice fields, the water began to dry up and people found they couldn't grow rice. One by one they began to sell their land and leave. They went to work as hired labour in other areas or with the company."

Villagers who kept their land but planted eucalyptus under contract faced another problem, as Kasem Petchanee pointed out: "After the first harvest, the soil is so degraded that villagers have to spend money to improve the soil. Removing the trees is difficult. Villagers have to hire expensive machinery to remove the stumps and roots of the trees. Agricultural communities are falling into debt to banks and money lenders. When villagers cannot pay, the banks take their land."

Waste water from Advance Agro's mill is poured onto the eucalyptus plantations. The filthy water lies in channels between the rows of the eucalyptus trees. Villagers point out that although the water is treated at the pulp mill this does not mean that the water is clean. Recently water released from the mill killed villagers' rice crops. Villagers report that ash from factory chimneys is deposited on their houses and gardens. People have experienced skin problems such as itchy skin. The air sometimes smells and villagers are worried that the factory might be emitting sulphur as well.

The company has set up an environmental unit, and company officials tell villagers that they know about the problems. However, villagers have never received any compensation for any of the problems that the company has caused them.

Several international companies have benefited from contracts on Advance Agro's mills. Jaakko Poyry, the world's largest forestry and engineering consulting company, won contracts from Advance Agro for engineering design, project management and construction management of the Prachinburi mill. Japan's Mitsubishi Heavy Industries provided machinery for Advance Agro's paper mill.

Finance for Advance Agro's mills was organised by Barclays de Zoete Wedd. The main backers were Bangkok Bank, Thai Farmers' Bank, Krung Thai Bank and the UK's Commonwealth Development Corporation. The International Finance Corporation, the World Bank's private lending arm, lent US$10 million and further financing came from export credits.

When Stora Enso bought a 19.9 per cent share in Advance Agro in 1998, it gained exclusive international marketing rights for Advance Agro's products and a secure market for 12,000 tonnes a year of long-fibre pulp from its European mills. Two members of Stora Enso are on the board of Advance Agro.

Advance Agro is a good illustration of how Northern and Thai companies benefit from the pulp and paper industry, while rural communities are left with the costs. (By: Chris Lang, WRM Bulletin Nº 70, May 2003).

Vietnam: Whose trees? Five million hectare "reforestation" programme

Vietnam has a history of tree plantation programmes dating back to 1956. According to a report by Nguyen Ngoc Lung, Director of Vietnam's Forest Development Department, between 1956 and 1992 an area of over 1 million hectares was planted with trees. However survival rates have been poor and much of the wood produced has been exported as wood chips to Japan or Taiwan.

Yet the Vietnamese government is determined to increase the area of plantations in the country. In 1992, the government introduced Programme 327, aimed at

"regreening the barren hills". The state-run Vietnam News Agency reports that between 1988 and 1994, 115,000 hectares per year were planted, a figure that increased to 193,000 hectares per year between 1995 and 1998. The cost to the state was high, and by 1998 Programme 327 had cost the government approximately US$273 million. Three years earlier the Vietnamese government had unsuccessfully attempted to get World Bank funding for Programme 327.

In 1998, the World Bank hired forestry consultants Fortech to "describe, analyse and evaluate" Programme 327. Fortech's consultant pointed out that under the programme areas of natural forest in Vietnam had continued to decline and that fast-growing tree plantation programmes had largely failed. Among the problems listed by the consultant are a top down bureaucratic approach, land allocation that does not involve local people, poor silvicultural practices, the project was simply imposed on poor households without their input, and Vietnam has little land available for large scale tree plantations.

Perhaps as a result of this failure to secure World Bank funding the government proposed a new and bigger programme to replace Programme 327: the 5 Million Hectare Reforestation Programme.

The programme's target is to increase the area of "forest" in the country to 14 million hectares by the year 2010. The target area – five million hectares – came from French maps of 1943 which indicate that 43 per cent of Vietnam was then forested, five million hectares more than official figures in the mid-1990s when the programme was first dreamed up. The programme is expected to cost somewhere in the region of US$2.5 billion with around US$1.5 billion to come from international aid agencies. Of the five million hectares the government plans to designate one million hectares to plantations for pulp production.

Six months after the government approved the project at the 10th National Assembly, bilateral aid agencies agreed to support the programme during the December 1998 Consultative Group meeting in Paris (chaired by the World Bank). A year later, on 10 December 1999, a Memorandum of Agreement was signed between Le Huy Ngo, Minister of Agriculture and Rural Development, and 15 representatives of international aid agencies.

Subsequently a "Joint Partnership Steering Committee" was established consisting of representatives of the Vietnamese government and international aid agencies. At the same time three Task Forces were established, which aim to investigate such things as forest policy, institutions, forest sector investment, assistance needs and financing strategy. The impacts of large scale tree monocultures on people and the environment will apparently not form part of the Task Forces' work.

The Swedish International Development Agency (SIDA) is one of the agencies involved in the discussions with the government about the 5 Million Hectare

Reforestation Programme. Rolf Samuelsson, First Secretary at the Swedish Embassy in Hanoi, described SIDA's attitude to the project: "We think it's perhaps a rather squarishly top down plan type of programme, political agenda and so forth. But as Sweden is very much encouraging partnerships and sector-wide programme approaches we think this programme, for all its constraints, is a good starting point for a dialogue with the government on forestry issues."

SIDA has requested that the Centre for International Forestry Research (CIFOR) in Indonesia gets involved in the negotiating process, on the grounds that there is no "critical mass of experts in Hanoi to help the ministry in working out these documents" according to Samuelsson.

Other agencies involved in the Joint Partnership Steering Committee include the Netherlands, Germany, UNDP and the World Bank. Some of these countries are already involved in funding or are planning other reforestation projects in Vietnam. For example the World Bank lists a US$75 million project titled "Barren Hills Afforestation" on its May 2000 Monthly Operational Summary. Few details are available although the Bank has listed the project for several months. In March 1997, the Asian Development Bank approved an interest-free US$33 million loan for a five-year Forestry Sector Project, which involves reforestation in mountainous areas in four provinces in Vietnam. Part of the project includes planting 12,000 hectares with fast-growing species. The consultant for this project is GFA (Gesellschaft fur Agrarprojekte mbH) a German agriculture and forestry consulting company based in Hamburg.

While the aid agencies and the Vietnamese government discuss the future funding of projects the government has started planting. In 1999, 206,000 hectares of "forests" were planted, out of a target of 310,000 hectares. Over 5,000 hectares were planted by aerial seeding in the northwestern province of Lai Chau. The target for this year is for 403,000 hectares and a budget of approximately US$25 million has been allocated.

The logic behind all this seems to be simply that trees are good. There appears to be little analysis about who or what the trees are for. One possibility is the pulp and paper industry, but in August 1999 Vietnam News reported that the Viet Nam National Paper Corporation had 18,000 tonnes of paper stockpiled – because of low consumption. Last year the Vietnam Paper Corporation was the biggest loss maker in the country with nine of its member companies reporting a loss for the year. A year earlier, Vietnam's wood suppliers were forced to stockpile timber because they had more wood than the country's pulp processors could handle. In December 1999, the Hanoi-based newspaper Nhan Dan reported that farmers were selling their products as firewood in local markets rather than to the pulp and paper industry because of the lack of transportation and the "low economic value of these long-lasting trees".

While these examples do not give the whole picture, they do indicate that a further one million hectares of plantations to supply the pulp industry would not necessarily benefit either the pulp and paper industry or the farmers on whose land the trees are grown. Ambitious planting targets and the business of attracting funding are in danger of crowding out the potential of increasing the area of native forests and increasing the well-being of the rural population, for example through community forestry.

Earlier this year the Ministry for Agriculture and Rural Development indicated that the area to be planted might be reduced to three million hectares "to correspond to the existing land area suitable for afforestation and the national development plan" according to the Vietnam News Agency. Perhaps this will help free up both political and geographical space needed to involve communities in managing their forests, woodlands, fallows, grazing lands and fields. (By: Chris Lang, WRM Bulletin Nº 38, September 2000).

Vietnam: Carbon sink plantations to avoid emission reductions in Australia

During the intergovernmental negotiations on climate change (COP-6) at the Hague last November, the Australian government sided with the US, Japan and Canada in refusing to negotiate reductions of its own carbon emissions. Five months later, the Australian government announced five projects aimed at reducing greenhouse gas emissions. Predictably enough, the projects, which are funded through the government's International Greenhouse Partnerships (IGP) Programme, are not aimed at reducing Australia's emissions, but are to be carried out in Peru, Fiji, Malaysia and Vietnam.

Launched in May 1998, and working from within the Department of Industry, Science and Resources, the IGP Programme aims "to reduce greenhouse gas emissions through projects overseas" that will in future be considered as carbon off-set projects under the Kyoto protocol.

Announcing the projects, Nick Minchin, the Australian Minister for Industry, Science and Resources, said "Not only will the projects be addressing global climate change by reducing greenhouse gas emissions, they will be helping to develop Australia's expertise in clean, green technologies through sound, commercially viable projects."

One of the IGP Programme projects will establish fast-growing tree plantations in Vietnam. The US$242,000 project is to be carried out by the Commonwealth Scientific and Industrial Research Organization (CSIRO) with the Research Centre for Forest Tree Improvement of Vietnam. According to Minchin, CSIRO "will increase the carbon dioxide uptake of planted forests [sic] in Vietnam through the use of genetically improved planting stock."

CSIRO will supply acacia and eucalyptus seeds – the favoured trees of the pulp and paper industry – and will establish four seedling orchards, each covering five hectares, two in Quang Tri province in central Vietnam and two in Binh Thuan province in the south. Seedlings from these orchards will be planted over a total area of 8,250 hectares on a range of sites in Vietnam.

CSIRO estimates that the plantations will remove "an extra 21,500 tonnes of CO2" from the atmosphere per year compared to other tree plantations. The calculation is based on a 15 per cent increase in volume growth, which CSIRO expects from using improved tree seeds. Recent research published in the journals "Nature" and "Science", however, indicates that forests are much better than plantations at absorbing carbon dioxide. Yet, the publicly available information on the IGP project makes no mention of any attempts to compare the amount of carbon stored in natural forests to that stored in plantations.

CSIRO also anticipates developing predictive models for "other major plantation species", and argues that "such a capability will assist in the successful growth of plantations, enabling higher yields from the forests [sic] planted and greater carbon sequestration in the longer term." Even assuming plantations are useful in absorbing carbon dioxide, the logic is flawed – higher yield plantations make no difference if the trees are cut after five years to produce short-lived commodities like woodchips, pulp and paper.

Elsewhere in Vietnam, private investors are finding it difficult to find enough land for their tree plantations. For example, the US$14 million Japanese-funded Quy Nhon Forest Plantation in Binh Dinh province aims to plant 13,000 hectares of acacia and eucalyptus plantations to produce wood chips for export to Japan. So far, in the seven years since the project was licensed, the company has received only around 8,000 hectares of land. "The land problem is increasing the risks for projects in plantations," Hironobu Ohara, the director of the project told the Vietnam Investment Review.

According to a recent article in the Thai newspaper, the Nation, the Vietnamese government stated that any carbon sequestration plantation projects in Vietnam must include support for communities that would be affected by the plantations. No such support is mentioned in the publicly available information on the IGP plantation project in Vietnam.

CSIRO receives 75 per cent of its funding from the Australian government, and is explicit about where its loyalty ultimately lies. In the organisation's own words: "CSIRO's primary functions are to assist Australian industry, contribute to Australia's national objectives and facilitate the application of the results of research."

The message is clear: the Australian government will not negotiate reductions in Australian carbon emissions, but CSIRO will "assist Australian industry"

through planting eucalyptus and acacia trees in Vietnam – supposedly to absorb those emissions. (By: Chris Lang, WRM Bulletin Nº 45, April 2001).

Vietnam: Massive plantations ahead

In 2001, the Vietnam Paper Corporation (Vinapimex) announced an ambitious plan to expand the pulp and paper industry in Vietnam. With a total cost of more than US$1 billion, the plan involves 15 new pulp and paper production projects. If they were all built, the projects would raise Vinapimex's annual paper production capacity from the current 171,000 tons to 419,000 tons.

The pulp and paper industry in Vietnam presently produces a total of approximately 360,000 tons of paper a year. Vinapimex hopes to increase this figure to more than one million tons by 2010.

One of Vinapimex's proposed projects is a new 130,000 tons a year bleached kraft pulp mill in Kontum province, in the central highlands of Vietnam. In October 2001, the government approved Vinapimex's feasibility study.

Most of the funding for the US$240 million project has yet to be found, but Vinapimex hopes foreign governments will come to its help with "aid" loans at interest rates below those of commercial banks. The Vietnamese government has agreed to cover seven per cent of the costs by funding roads, research facilities, health clinics and schools. The government will also buy land use rights for the project and will waive land tax during the first tree cycle.

To supply raw material to the mill, Vinapimex has already started planting trees and aims to establish an area of 125,000 hectares of fast-growing tree plantations. In addition, according to the feasibility study, Vinapimex plans to use 38,000 hectares of natural forest to supply the mill.

Meanwhile, work on expanding Vietnam's largest pulp and paper mill, Bai Bang, is due to start in the next few weeks. The plant is to be expanded from a capacity of 55,000 tons of paper a year to 100,000 tons. At the same time, annual pulp capacity will be increased from 48,000 tons to 61,000 tons. This represents the first stage of a plan to increase the mill's annual paper capacity to 200,000 tons and pulp capacity to 150,000 tons.

On 30 November 2001, the Swedish Government agreed to provide a preferential credit of US$12.5 million to fund the first phase of the expansion. In 2000, Vinapimex obtained US$42 million in loans from three Nordic banks to fund the rebuilding of the mill. Vinapimex has signed contracts with Voith Paper and China's Sinochem to rebuild the plant. Elof Hansson and Marubeni won contracts to supply equipment. Hansson leads a group of supplier companies which includes Kvaerner Chemetics, Kvaerner Pulping, Purac, Metso Paper and AF-IPK.

In addition to Vinapimex's expansion plans, the Japanese company Nissho Iwai is planning to increase its wood chip production in Vietnam. The company is building a new, US$1.5 million plant as a joint venture with a state-owned forest product exporting agency. The wood chips will be exported and sold to the Japanese Oji Paper Company. Nissho Iwai also plans to increase the capacity of an existing wood chip producer by 15 per cent to 150,000 tons a year. The company's target for the year 2002 is 400,000 tons, all of which is for export to Japan.

In an attempt meet the increasing demand for raw material to supply the expanding pulp and paper industry, the government has ambitious plans to plant one million hectares of industrial plantations specifically to feed the industry as part of its "5 million hectare" programme.

In a report dated February 2001, the Ministry of Agriculture and Rural Development argues that the 5 million hectare programme should lead to "sustainable land use" and be "financially, environmentally and socially viable". Yet, the industrial tree plantation programme currently underway in Vietnam meets none of these objectives. It is only financially viable with government subsidies and low-interest loans in the form of overseas "aid". Monocultures of fast-growing trees which replace forests, fields and grasslands cannot be described as either environmentally viable or sustainable. And, for rural Vietnamese people, who are dependent on the land and forests which would be lost to the plantations, the social implications are potentially devastating. (By: Chris Lang, WRM Bulletin Nº 54, January 2002).

Vietnam: Construction of Kontum pulp and paper mill suspended

On 24 October 2002, provincial authorities announced the suspension of construction of the new 130,000 tons a year pulp and paper mill at Dac To in Kontum province, in Vietnam's Central Highlands. The state-run Vietnam News Agency (VNA) reported that construction was stopped because of "a failure to draw up a credible master plan".

Six months earlier, during a two-day trip to Kontum, Deputy Prime Minister Nguyen Cong Tan had demanded that the Vietnam Paper Company, Vinapimex, must publish a plan indicating where the raw materials were to come from to feed the mill.

Vinapimex had planned the Kontum mill on the assumption that more than 20,000 hectares of plantation were available to feed the mill, and that more land could be planted. However, three years later, less than 15,000 hectares of plantations existed and some of this area encroached on people's land and homes. After construction was stopped, Kontum's provincial authorities told VNA that expanding the area of tree plantations to provide more material was simply not feasible.

Jaakko Poyry, the world's biggest forestry and engineering consulting firm, was the project consultant for the proposed mill. In 1998, Poyry produced a feasibility study for Vinapimex on the mill, and prepared the bidding documents for tender in May 2002. The total cost of the mill was estimated at US$240 million, including US$163 million worth of equipment from Western Europe.

The suspension of construction at the Kontum mill is only one of the problems facing the state-run Vinapimex, Vietnam's largest paper producer. Vietnam has the capacity to produce 360,000 tons of paper a year or approximately 70 per cent of the paper consumed in the country each year. However, in August 2002, VNA reported that Vinapimex's warehouses were at bursting point, with 28,500 tons of stockpiled paper, including 16,000 tons from the previous year. The company accused foreign exporters of dumping cheap paper in Vietnam, but the reality is that imported paper is both cheaper and better quality. In 2002, Vietnam imported 52,000 tons of pulp and 290,000 tons of paper.

In an attempt to compete with the imports, Vinapimex reduced paper prices twice during 2002. Meanwhile, paper production costs increased in October when the government hiked the price of electricity. Vinapimex has asked the government for a reduction in electricity charges to pre-October 2002 levels and is looking to the government for other subsidies, through preferential credit loans and a reduction in value added tax.

The outlook is not good for Vinapimex. This year, under the ASEAN Free Trade Area rules, Vietnam has to reduce tariffs on imports of paper from 50 per cent down to 20 per cent.

In 2000, Dang Van Chu, Vietnam's Minister of Industry told the trade magazine Pulp and Paper International that Vietnam had a clear strategy for the pulp and paper industry for the next decade. "Within 10 years, we want our industry to meet 80-90 per cent of domestic demand, with an average growth rate of 10.4 per cent per year," he said. He added that the country also hopes to increase trade on the international market.

Only two years later, the plans are in tatters. In July 2002, Deputy Prime Minister Nguyen Tan Dung instructed the Ministry of Industry to adjust its development plan for the paper industry up to 2010. Dung requested that all proposed new paper mill must take into account plans for raw material supply.

Meanwhile, Vinapimex continues with its expansion plans. A 250,000 tons a year pulp mill is planned at Phu Tho, with the aim of supplying Vietnam's largest pulp and paper mill at Bai Bang.

In October 2002, the government approved Vinapimex's plans for a US$104 million pulp and paper mill in Thanh Hoa province. The mill is to have a capacity of 50,000 tons of pulp and 60,000 tons of paper a year.

In Lam Dong province, Vinapimex plans a US$250 million pulp mill, with a capacity between 200,000 and 400,000 tons a year. The Lam Dong People's Committee Deputy Chairman, Hoang Si Son, told the Vietnam Economic Times, "Vinapimex has planted an area of 10,000 hectares to add to the existing 30,000 hectares; we plan to increase the forest cover to 135,000 hectares."

Apparently, Vinapimex sees building more pulp and paper mills as the only way it can survive as an organisation. Of course the company can simply build more and bigger warehouses for the massive stockpiles of loss-making paper that it produces. Then it can turn to the government and international aid agencies for the subsidies it needs to ensure its bureaucratic survival. The impacts on Vietnam's rural communities, their forests and their livelihoods will not be so easily resolved. (By: Chris Lang, WRM Bulletin Nº 66, January 2003).

OCEANIA

Aotearoa/New Zealand: Opposition to genetically engineered trees

While genetic engineering applied to food production is provoking concern among consumers and citizens and many scientists express their doubts and criticism in relation to it, big food, forestry and energy corporations are engaged in developing genetically modified trees, expected to be able to grow faster and to contain components desired by industry.

In August 1999 the Environmental Risk Management Authority (ERMA) of New Zealand received through a specially created web site (www.context.co.nz), up to 700 submissions on genetically engineered pine trees. This initiative of participatory democracy with regard to an important environmental issue is part of the evaluation process of the application made by the Forest Research Institute (FRI) to ERMA in order to make a field trial of genetically engineered pine trees in the open environment. It is important to highlight that until now this new system had never received more than 50 submissions, which clearly shows the public's concern over this issue.

Out of the 700 submissions, the vast majority were critical to the field trial. Mario Rautner, Greenpeace's campaigner on genetically engineered trees, expressed that the results clearly show that the public does not agree with the release of genetically engineered trees into the country's open environment. "We are calling on the FRI to accept the public opposition to this experiment. We would like to see the FRI applying the voluntary moratorium and halting this field trial now. Genetically engineered trees could pose a very serious threat to the environment and we oppose this unpredictable experiment with nature" he added. The question is whether the authorities will act according to the public's desires and definitively give up the field trial or if they will respond to the interest of industry.

It is to be underscored that the inclusion of tree plantations as supposed carbon sinks under the CDM of the Kyoto Protocol would mean a boost for the development of biotechnology in the forestry sector, arguing that GE trees would be able to grow faster and then to absorb more CO2 in less time. An additional risk that should be taken in account by climate negotiators in the next meeting at The Hague. (WRM Bulletin Nº 39, October 2000).

The case of Aotearoa/New Zealand

In October 2000, all of Fletcher Challenge Forests' New Zealand plantations received Forest Stewardship Council certification, after an evaluation carried out on behalf of Scientific Certification Systems (SCS). Included in the certification is the world's largest continuous radiata pine plantation.

Ian Boyd, Fletcher Challenge Forests' then-Acting Chief Executive, said, "Forest Stewardship Council Certification will provide Fletcher Challenge Forests with a significant marketing opportunity in those markets which demand environmental responsibility."

However, the certification of Fletcher Challenge Forests' operations raises serious questions about SCS' assessment process, as well as about Fletcher Challenge Forests' plantation management itself.

According to FSC principle 6, all World Health Organisation type 1A and 1B pesticides "shall be prohibited". Fletcher Challenge Forestry uses sodium fluoroacetate. Commonly known as 1080, it is a poison used to kill wildlife such as possums, which can damage plantation trees. In SCS' public summary of the assessment of Fletcher Challenge Forests' operations, the assessors acknowledge that 1080 is "a compound appearing on WHO Table 1". Yet, rather than refusing to award the certificate, SCS applied a condition which is so loose it is almost meaningless: "Within 12 months of award of certification, Fletcher Challenge Forests should be able to demonstrate that they are actively seeking alternatives to 1080, e.g. by supporting research into alternatives."

In other words, Fletcher Challenge Forests can continue to use 1080 without risking their FSC certificate, as long as they support research into alternatives. SCS does not mention what form such support should take, or even if it matters whether the research yields any results or not.

FSC principle 2 states that disputes over land rights "of a substantial magnitude . . . will normally disqualify an operation from being certified." To the Maori, land is sacred and they have several outstanding land claims on Fletcher Challenge Forests' plantation land under the 1840 Treaty of Waitangi. In their assessment, SCS' assessors describe the "uncertainty over ownership of a significant proportion of [Fletcher Challenge's] forest lands" as a "significant" issue. Once again however, this does not prevent SCS from awarding the certificate.

According to FSC Principle 6, "Use of genetically modified organisms shall be prohibited". Since 1995, Fletcher Challenge Forests has worked with Genesis Research and Development Corporation, New Zealand's biggest biotechnology company, on research into genetic modification of trees. SCS' assessors acknowledge that Fletcher Challenge Forests is involved in research on genetically modified plant tissues. Although Fletcher Challenge Forests does not currently use genetically modified trees in its plantations, rather than discussing whether Fletcher Challenge Forests' research conflicts with the spirit of FSC principles, the public summary of the assessment simply states: "All materials are classed as low risk and the laboratory is fully compliant with regulatory requirements."

In 1999 Fletcher Challenge Forests, Genesis, Monsanto, International Paper and Westvaco announced a US$60 million joint venture. The joint venture company, called ArborGen, will produce and market genetically modified tree seedlings, focussing on radiata pine and eucalyptus trees in New Zealand. Monsanto has since withdrawn from active partnership.

Whether Fletcher Challenge Forests use the genetically modified seedlings in its own plantations or, as part of the ArborGen joint venture, sells them to other forestry operations, Fletcher Challenge Forests is effectively using genetically modified organisms, and promoting their use in forestry operations. Whether Fletcher Challenge Forests is therefore in breach of FSC's principles should surely be a matter for the assessors to discuss in the public summary of the assessment. Yet, in describing Fletcher Challenge Forests' research and development activities, the assessors conclude: "The company has a clear commitment to the FSC principles".

Three of the four assessors hired by SCS to carry out the assessment of Fletcher Challenge Forests' operations work for the New Zealand company Forest Research. In 1982, Forest Research hosted an international meeting on genetic research with radiata pine. By September 1995, the institute's greenhouses in Rotorua were stuffed full of genetically modified radiata pine. Forest Research also runs projects funded by Fletcher Challenge Forests. Could this perhaps explain the assessors' unquestioning acceptance of Fletcher Challenge research into genetically modified trees? (By: Chris Lang, Special WRM Bulletin on FSC, November 2002).

New Zealand/Aotearoa: Changing Ownership and Management of State Owned Plantations

Last year I attended a conference in Capetown on the above subject, where the push appeared to be for the involvement of the Private Sector in the ownership and management of Plantations. As an Indigenous person from a country with huge areas of monocultural exotic plantations, I had never thought much about

the ownership of these plantations. In my country they had a history of state ownership, although recent times had seen the sale of some of these plantations. Ethically, I am opposed to the privatization of state assets by any government and regard it as a false economic measure. However, I am also opposed to the proliferation of large scale, monocultural tree farms and had been encouraged by a recent shift in government attitudes in this country where more emphasis (in terms of new plantings) had appeared to be focused on Indigenous species and erosion control in particular. True, I had not thought it went far enough and was frustrated by the relatively small areas of Indigenous plantings, but I believed that it was a significant shift in attitude that was appearing to place much greater emphasis on Conservation. So, would it be so bad if the private sector took over ownership and management of these large plantations?

It would provide the Government with a cash injection for social reforms and would rid it of the necessity of running unpopular forestry programmes. At least this appeared to be a major thread of the argument running through the Capetown conference and there is a lot of truth in that philosophy, but years of experience in the political arena had taught me that there must be a downside to the argument. I remembered the words of the World Business Council for Sustainable Development at their forum on the Clean Development Mechanism during the World Summit on Sustainable Development. “If there isn’t a business case to be put forward, then it is charity”. The clear message of this statement (and these were concerned, caring businesses regarded as the good guys) was that businesses were not in the habit of handing out charity. So what does this mean for the issue of Governments selling plantations? Well, if they are only going to be cut down and not used as an ongoing source of supply, I am not sure that I really give a damn. They are after all invasive species and a relic of colonization. However, from a business and investment point of view, it would appear to be not economic to cut them and walk away. At least not if they got them at a fair price; and if they did not, then that says a lot about the business sense of the selling government.

Therefore, we need to consider the long term implications of ownership of these plantations by people with a demonstrated history of cutting labour, toxic chemical use, clear cutting with heavy machinery and investment in Genetic Modification research. Why do we need to consider this? Because “If there isn’t a business case to be put forward, then it’s charity”. The above measures increase the profit margin, and that is the business case, the profit margin. When governments run these plantation areas, they are obliged to consider the social cost of the measures they use because if they prove too unpopular, the government may find itself on the unemployment line after the next election. In most of our countries, we have the option of ridding ourselves of governments that have made too many unpopular decisions. We don’t however, elect the Boards of the companies that would manage plantations under privatization

and that are the worry. They do not have the same restrictions on their profit margins as governments may have. In the meantime of course, if they were sold, the government could wring its hands and say how terrible they thought the company was, but how free enterprise must be allowed to flourish, regardless of a few flaws. That's my problem with the sale of these monolithic tree farms. Someone else makes the profit, we still pay the price, except it has grown somewhat and no-one gets to be held accountable for the social impacts.

If the privatization of plantations in your country is an issue, then think about the whys and the what ifs before you just pass it off as not something you care about because it is only plantations and you don't like them anyway. (By: Sandy Gauntlett, WRM Bulletin Nº 68, March 2003).

Australia: "Carbon sink" plantations invade Tasmania

The expansion of tree monocultures in Tasmania – which is paradoxically the centre of origin of *Eucalyptus globulus*, one of the most widely used species for establishing monocultures throughout the world – under the Clean Development Mechanisms of the Kyoto Protocol is provoking widespread concern in Australia.

The Federal Government's "Plantation 2020 Vision" programme is aimed at establishing 650,000 hectares of tree plantations in Tasmania over the next twenty years. Federal and State governments in Australia have adopted a market-oriented viewpoint, according to which carbon can be sequestered in tree plantations that will be logged at a later stage for corporate profit. Not only does the National Forestry Policy promote vast tree monocultures, but it is also encouraging deforestation to give place to such plantations, with all the negative environmental impacts that this substitution implies both at the local and the global levels. The potential of old growth forests as reservoirs of large amounts of carbon are completely ignored. Instead, logging has intensified in several parts of the southern island of Tasmania, where native eucalyptus forests are being destroyed.

At the same time, opposition to plantations is increasing, even under the form of radical actions such as arson and uprootings. Opposition to plantations has moved beyond the environmental sector and now includes a significant part of the rural community, particularly dairy farmers and local councils. For example, the "Communities Over Plantations" group, recently created in the north of the state, constitutes a pressure group basically composed of traditional rural community members. Dairy farmers oppose plantations because of the devaluation of properties adjoining tree plots and the social isolation caused by wall to wall plantations located in the middle of once-thriving rural communities. Additionally, county administrations have to deal with the loss of revenues from taxes resulting from the substitution of agricultural activities by tree plantations.

Major actors in this carbon sink plantation process are not even Australian companies. For example, the Tokyo Electric Power Corporation (TEPCO) – part of the Mitsubishi corporate empire – established a joint venture with North Ltd to establish over 23,000 hectares of tree farms on agricultural land. This is also the case in Victoria, where a US life insurance company, John Hancock, now owns 150,000 hectares of tree plantations.

The Australian NGO Native Forests Network is advocating for the adoption of more effective, realistic and non destructive practices to face the increase of carbon concentrations in the atmosphere. One of them is to stop the wasteful practice of clearfelling and burning native forests for low-value products such as woodchips. In addition to the massive amounts of carbon that are released through the initial logging of forests and subsequent so-called regeneration burning, woodchips themselves are converted into disposable commodities – such as paper – that are quickly destroyed, thus contributing to increased carbon emissions in a short space of time. A far better response to increased atmospheric carbon pollution is to maintain native forests standing in their respective sites, and promote the restoration of existing cleared or degraded forests. In the same line, the Australian Green Party has denounced that this is but a shortcut of the government to avoid addressing the necessary reduction of greenhouse gas emissions, while Greenpeace Australia considers that the Federal Government should be focusing on renewable energy and take action to cut emissions, rather than trying to reduce their effects. (WRM Bulletin Nº 35, June 2000).

Australia: Tasmanian farms which fed people replaced by farms which feed woodchip mills

Preolenna, in NW Tasmania, has dramatically changed from what it used to be just five years ago. Under the Federal Government's plan labelled Plantations 2020 Vision (www.plantations2020.com.au), this former farming community has seen their farms which used to feed people replaced by farms which feed woodchip mills. The pattern of large-scale monoculture tree plantations has swept through more than 35 farming towns in the North West hinterland from Circular Head to Wilmot.

Two long-term residents – Colleen Dibley and Evelyn De Vito – have denounced before a national review committee that from 1997 to 2001, thirteen houses and eleven dairies were bulldozed to support tree farming as farms were sold and families moved on. Ms. Dibley told the committee that 187 jobs had been lost in the North West in the last five years as farms were converted to monoculture woodchip driven plantations.

In 1995, 26 people were directly employed by the dairy industry on 16 major cropping and dairy properties in Preolenna and Meunna. This year no people

are employed on such farms. There were also five farm labourers employed but these jobs have also gone. Over the same time the number of people employed in the plantation industry, which has expanded greatly, has remained stagnant. The once-bustling productive rural community of Preolenna had become a silent, weed infested landscape owned primarily by two forestry companies and "is now a dormitory community, where people either work outside the district or rely on welfare."

In line with the changed economic conditions, Telstra has removed its mobile phone tower and the electricity grid has been pulled back. And Ms. Dibley said it was not land unsuitable for agriculture which has been targeted by the timber companies, but class three and four, or prime agricultural land. Ms. Dibley told the committee that while the forestry companies Gunns and Forest Enterprises had consistently claimed prime soils were not being targeted, its investment scheme publicity painted a different picture. "Gunns conducts a rigorous site selection and assessment process. The sites are located on rich fertile soils with high and reliable rainfall". She said Meunna, except for two houses, no longer existed, but was instead a big industrial monoculture plantation of Eucalyptus nitens which provided only occasional employment for gangs of forestry workers.

In 1999, Waratah-Wynyard and Burnie areas had the most plantations of any Tasmanian local government area and planting has intensified since early 2000. But unemployment in these areas is among the highest in the State and the population continues to shrink. Mrs Dibley told the committee that Waratah-Wynyard Council had lost about $4m a year due to the destruction of dairy farms alone.

However, the changes did not happen quietly. Despite division was created between neighbours, in 1999 and 2000, Preolenna was the subject of numerous newspaper articles as the dwindling group of residents, including farmers who sold out very reluctantly, saw the implications of the destruction of the community's economic basis.

In turn, the Australian senate Rural and Regional Affairs and Transport Reference Committee is looking at impediments to the plantation industry. Submissions closed at the end of August and the committee is examining, among other things, what impediments there are to achieving the aims of the 2020 vision and if the strategy should be altered. "If Preolenna is an example of what happens when there are some impediments to the timber industry in place, imagine what would occur if impediments were removed," Ms. Dibley said. (WRM Bulletin Nº 64, November 2002).

Fiji: A *coup d'état* sparked off by a mahogany plantation

It is already a well-known fact that large scale tree monocultures result in a large number of social and environmental impacts. However, we had not yet heard of a situation such as that of Fiji, where plantations generated such acute social and economic tensions that they eventually led to a coup d'état.

The roots of the issue can be traced back to the 1950s and 60s, when the former British colonial administration decided to implement two large-scale plantation projects, one based on pine trees and the other on Honduran mahogany. The land occupied by the plantations was leased to Fijian landowners at a nominal price of some 10 cents per hectare per year. Many of the leases gave landowners rights to share profits at harvest.

The pine plantation was harvested in the 1980s – the decade after the British left – by the state-owned Fiji Pine company, created for that purpose. Most of the logs were converted into chips and exported at low prices. Landowners made no profit.

In the year 2000, the time had come for harvesting the mahogany, and a number of actors appeared in the scenario. A group of Fiji landowners, discontent about the results with the pine plantation, contacted in 1996 a US businessman – Marshal Pettit – and convinced him to get involved in the harvesting of the mahogany plantation. However, he was totally unaware about the fact that the issue was not a typical business deal, but involved land rights, local politics, ethnic conflict, a British company and Fijian international policy.

The US businessman, in partnership with the newly appointed chairman of Fiji Pine – George Speight – seemed about to succeed in the bid to harvest the plantation, when the party that backed Mr Spreight lost a parliamentary election. As a result, he was out of his post and the new government gave the contract to the British company Commonwealth Corporation, in spite of the fact that the US$ 65 million offered by this company was far less than the US$ 210 million offered by Pettit's Timber Resources Management company. The reason for this apparently absurd decision was that the new Prime Minister, the first ethnic Indian to occupy the post in 13 years, needed British backing in the European Union over export support for sugar, Fiji's leading industry and dominated by ethnic Indians.

The decision gave rise to mass demonstrations organized by landowners and spurred by both Pettit and Speight. In May, a 20,000 people-strong demonstration resulted in riots and the destruction of ethnic Indian businesses, while at the same time Speight occupied the Parliament building with paramilitary troops and held the Prime Minister and his cabinet hostage for two months. In July the army arrested him and he is currently awaiting trial.

The final result from this plantation is that a British company will receive most of the benefits. On the other side, the Fijian people will be more divided over ethnic conflict than before, local landowners will receive very little for the trees planted on their land, the Fijian democratic system will be weaker and the country's economy will have gained almost nothing. (WRM Bulletin Nº 38, September 2000).

Hawaii: Are eucalyptus the only possible crop in Hamakua?

Friends of Hamakua is gravely concerned over a proposed plywood/veneer plant and about the State Forest Hamakua Management Plan, which would imply the harvesting of 4,000 acres of old "non-native" plantations. There are several reasons for this concern. Access roads will have to be built into all of these, many forested areas. Once harvesting begins, all public access to these roads will be closed off due to liability concerns. Once the roads are in place, access will be gained to the few remaining native tree stands, which the plan says, may be removed if necessary.

Government officials reported at a public meeting held in Laupahoehoe – which was well represented by nearly 100 residents who were very opposed to this plan – that the old eucalyptus plantations are worth $6 million. However, it has been proven in several states that the cost of planning, building infrastructure, harvest liabilities, and loss of old growth far exceeds the potential income. Much of the costs of this incoming industry will be born by the taxpayer, like fire prevention, property tax reductions, infrastructure, and possible future subsidies. Why does the State think Hawaii can experience a profit, when this industry survives elsewhere only through subsidies?

Current plans involve the plantation of 105,000 acres, mostly composed of eucalyptus (85,000 acres) and only 20,000 acres of native hardwoods. To this, Friends of Hamakua replies: "Are we sick already of the 16,000 acres already planted! Do we really want to dedicate so much more land to this crop? It cannot be true that only eucalyptus trees are the solution to the non-irrigated sugarlands. It rains, and there should be many crops and higher value trees that will benefit the land and the people. Many of us remember Capitol Wood Chips and what that was like. Imagine 10 times that amount of logging and chipping along the Hamakua."

Friends of Hamakua say that they would embrace a forest industry that promotes long term goals of higher value hardwoods that would be managed selectively, incorporating sustainable practices so that their children may prosper, but not the short term 4-7 year rotation that Prutimber plans. They would support a forest industry that doesn't spray inordinate amounts of herbicides around its neighbours, who treats local contractors fairly, whose words they can believe in, and who immediately invests in on-site fire fighting infrastructure. They say

that they would also be open to a State Forest Plan that takes each parcel of forest individually, without the threat of a huge mill that wants to greedily harvest all the trees.

Taking into account that the Hamakua State Forestry Management Plan's objective is to supply the proposed plywood/veneer plant with trees, Friends of Hamakua are demanding an environmental impact study (EIS) to be conducted on the entire monocrop eucalyptus, and on the plywood/veneer timber industry before more land is dedicated either to planting or to harvesting. They have requested that the County Council conduct such a study, but its Chairman responded with only replies from the forest industry and affiliated parties. In view of that, they are beginning to circulate a petition that demands an EIS be conducted before going a step further. "How can we support", they ask, "an industry that will dedicate so much of our land, change our way of life, and effect our property values and businesses?" (WRM Bulletin Nº 38, September 2000).

Papua-New Guinea: Incentives to oil palm plantations

Papua New Guinea (PNG) possesses one of the planet's largest remaining tropical rainforest. At least seventy-five percent of its original forest cover is still standing, occupying vast, biologically rich tracts over 100,000 square miles in all. Its forests provide the habitat for about 200 species of mammals, 20,000 species of plants, 1,500 species of trees and 750 species of birds, half of which are endemic to the island. It has been estimated that between 5 and 7% of the known species in the world live in Papua New Guinea. Rare plants and animals like the largest orchid, the largest butterfly, the longest lizard, the largest pigeon and the smallest parrot ever registered live in these forests. The forests also constitute the home of the indigenous peoples. But these forests and forest peoples are under threat due to large-scale logging activities and oil palm plantations.

Papua New Guinea is the world seventh largest palm oil producer and the third largest exporter of palm oil, exporting almost its entire production to Europe. During the last years the oil palm industry has been expanding throughout Papua New Guinea, mainly in West New Britain Province, which is the leading producer of oil palm in the country, known as "The Oil Palm Province".

Initially, oil palm plantations were implemented by companies in which the government was one of the shareholders. But now the situation has changed with the increasing investment of Chinese, Malaysian and Indonesian companies in oil palm plantations which destroy the forests to give way to this monoculture. This is resulting in the appropriation of local communities' lands and therefore in resistance against this activity. One of such cases is that of the Maisin indigenous people, who inhabit the rainforest of Papua New Guinea. The Maisin

filed a lawsuit against a Malaysian company, that found its way to Papua New Guinea's highest Court. The company claimed to own leasing rights to both clear-cut the Maisin's forests and to establish an oil palm plantation. Under the Papua New Guinea constitution, the Maisin are the legal owners of their traditional lands. The Maisin claim they have never signed away their forest lands, and that the Malaysian company possesses an invalid lease with forged signatures. The company denied the charges, but the Papua New Guinea Courts have enjoined the project pending final resolution of the case.

Instead of promoting environmentally sound and socially beneficial activities – such as community forest management – the PNG government is strongly supporting this type of development. In April this year, the Livestock Minister Muki Taranupi announced plans for tax incentives in the oil palm sector designed to encourage growth and boost production. The minister said the government would offer tax credits to oil palm estates and reduce import duty on agricultural imports. The minister added that he had also directed his department to examine the possibility of reducing import duties on imported agricultural equipment and implements including fertilizers.

It is worth noting that an activity such as this, which results in the impoverishment of local peoples – who lose their lands and forests – and in the depletion of biological and water resources receives strong governmental support, while socially and environmentally beneficial activities do not. In the case of Papua New Guinea, oil palm plantations are not even aimed at the production of edible oil for the local population and almost the entire production is export-oriented. As usual, corporate profits and macroeconomic benefits seem to be more important than local peoples livelihoods and environmental conservation?" (WRM Bulletin Nº 47, June 2001).

Papua New Guinea: The impacts of British-promoted oil palm monocultures

CDC Capital Partners is a major actor in Papua New Guinea's oil palm plantations. A former UK foreign aid programme, it later became a public private company and invests in PNG through Pacific Rim Plantations Ltd., holding 76% of its shares.

Pacific Rim Plantations Ltd. owns and manages about 23,000 hectares of oil palm plantations in three locations: Northern Province (Popondetta), Milne Bay Province (Alotau) on PNG's north coast and at Kavieng on New Ireland island. It operates in joint venture with the PNG government, which has a 20% stake.

CDC plans in the longer term to double its palm oil capacity, and has been buying areas of customary land. Though according to its Environmental Plan,

the areas to be cleared were "scrub" and "secondary bush", recent photographs indicate that CDC's operations drive the deforestation of lowland tropical moist forest in PNG. One of the main areas affected provides the habitat for the world's largest butterfly, the Queen Alexandra Birdwing Butterfly (Ornithoptera alexandrae), pride of local people and classified as rare and endangered by IUCN and listed on CITES Appendix 1.

A local environmental group, Conservation Melanesia (CM) exposed that problems with land clearing for CDC, ranging from open clearing of vegetation right up to the edges of streams and rivers, to planting in the middle of rivers. All oil palm estates plant through minor river courses, which tend to dry out during the dry season. These watercourses, however, play an important role in the ecosystem – until the surrounding natural vegetation is cleared and planted with oil palm. Besides, CDC's palm oil plant in Oro had open and direct discharge of effluent into the surrounding environment by discharging waste directly into a local river and its tributaries. A multitude of people living along this river, extending through the interior of the province right down to coastal villages, have complained about water pollution, dead fish and destruction from flooding not experienced before the processing plant was built. Little action has been taken from CDC to address those concerns.

These concerns are not new. Already in 1994, FoE-EWNI and WWF UK both criticised CDC for destroying rainforests in the Milne Bay Estates and also for making local communities dependent on a single export based cash crop, vulnerable to wild price fluctuations. They warned that the on-site factory would encourage local people to clear their own land for oil palms, and it appears that this is exactly what has happened.

CDC argues that it is socially responsible and that it has launched building programmes and investing in communities to improve living conditions. However, there are reports which say that CDC is pushing local landowner mini-estate development because based on wage labour savings, this system is more beneficial to the company than if it further develop its nucleus estate. The company provides seeds and 4-5 year credits to landowners if they develop oil palm on their estates.

NGOs' objections relate to questionable informed consent processes and land leaseback arrangements, absence of oil palm labour unions, low oil palm wages and lack of objective information provided to landowners. Additionally, transactions with local people are biased. Papua New Guineans have traditionally had a common approach towards land ownership and they are not well aware of the commitments implied in the sophisticated commercial contracts they sign. (WRM Bulletin Nº 49, August 2001).

Papua New Guinea: Forests saved against logging and oil palm plantation

Landowners of Maisin and Wanigela customary lands, in the Collingwood Bay area of Oro Province, have something to celebrate.

In May 2002, the Waigani National Court returned customary land which had been leased to the State in early 1999 under a lease-lease back agreement by Keroro Development Corporation, a local landowner company. The plan was to clear the area and plant oil palm trees. The land concerned comprises 38,000 hectares of rich volcanic soil with an extensive forest area.

The Collingwood Bay people considered illegal the 'lease' on their land so they mounted a test case to determine whether the rule of law and justice can be flouted by logging companies, their agents and corrupt individuals in government.

According to the majority of landowners only a few signed the land lease, without proper consultation with various customary landowners in Collingwood Bay. The court victory did away with the threat of logging and conversion to monoculture oil palm plantations of those lands where their landowners can develop self-managed small scale, community based enterprises without destroying their forests.

This case can be also seen as an encouragement for other landowners who are facing similar problems to reclaim land which has been seized without their consent, and to assert their right to be included in all discussions concerning the usage of their land. Kuinga-Aimbak landowners in the Western province, for example, are also fighting to stop logging operations in their area.

The victory gave way to a four day celebration and the occasion was attended by friends from within PNG and overseas who had assisted landowners in their long battle, like Greenpeace, Environmental Law Center and Conservation Melanesia. Guests were showered with gifts from all the villages and a traditional ceremonial of wiping pork fat on the guests as mark of respect and in payment of their support.

"Unlike our ancestors and forefathers who fought battles with spears and clubs, we fought this battle with pen and paper, as our land was stolen through pen and paper", said a Collingwood Bay landowner.

Although the outcome was in their favour, the whole ordeal has been hard for them and has permanently changed their lives. They had to bear the expensive costs of the legal suit and had to take decisions that affected their families' security and welfare and to a greater extent caused them dear lives. (WRM Bulletin Nº 64, November 2002).

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