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# MITIGATING THE IMPACTS OF CLIMATE CHANGE

## SOLUTIONS OR ADDITIONAL THREATS?



*“Indigenous Peoples have suffered the very worst impacts of climate change without having contributed much to its creation and we must not be placed in the position of suffering more due to the impacts of climate change mitigation strategies in order that northern nations can continue their culture of over-consumption.”*

The International Forum of Indigenous Peoples on Climate Change (IFIPCC), Bali 2007<sup>1</sup>

Indigenous peoples have always experienced a range of changes, from changes in the natural environment to policy changes that have impacted on their lives and cultures. Indigenous peoples therefore have extensive experience of responding to, coping with, and adapting to these changes. Their cultures have thus evolved in accordance with interactions with a changing natural environment and the broader context of social and political change. It is this interaction that has strengthened their coping mechanisms in response to change. Recent developments may, however, prove to be more daunting for indigenous peoples than any other previous challenge.

For indigenous peoples, climate change is a reality. Despite lacking the technical data on how much the sea levels and global temperatures have risen, they face the direct adverse consequences of climate change on a daily basis. They experience the drying-up of once fertile farmlands, the torrential floodwaters that inundate their soon-to-be harvested gardens, the dwindling water supply during summer and the diminishing of the fruits of the land in general. These climate-induced changes are happening faster than anything previously observed. The speed with which the climate is changing is putting the abilities of indigenous communities to adapt to the test.

### **Impacts of climate change on indigenous traditional knowledge and cultures**

While climate change is indeed impacting on everyone, indigenous peoples are affected more adversely due to factors such as direct dependence on natural resources, poverty, marginalization, access to services, abilities to cope, and their geographical, social, cultural and political position. As in other communities, indigenous peoples are affected by food shortages, extended drought, floods and other physical, easily measured impacts. However, one aspect that has not been thoroughly reviewed is the loss in terms of traditional knowledge and cultural practices.

Indigenous peoples' traditional knowledge and practices are closely linked to their use of and dependency on natural resources and biological diversity. Traditional knowledge is an inseparable part of indigenous culture, social structures, economy, livelihoods, beliefs, traditions, customs, customary law,

Oil palm plantation on Peninsular Malaysia.  
Photo: Christian Erni



(right) Old-growth forest in the ancestral domain of the Buhid on Mindoro island, Philippines.  
Photo: Christian Erni

health and their relationship to the local environment. With unprecedented climate changes, cultural institutions, authorities and livelihood strategies come under increased stress as knowledge based on known indicators and patterns reveals the limitations of local coping strategies in the face of broader global processes.

### Changes in the agricultural cycle

One example of the impact of climate change on indigenous knowledge and culture is the changes in the agricultural cycle as a result of intensified changes in the climate. Many indigenous peoples in Asia rely on the observation of particular indicators, which make the community able to determine when it is appropriate to plant, cultivate and harvest. The agricultural cycle influences and determines not only indigenous economic systems but also cultural, social and political traditions. With unpredictable weather patterns and increasingly extreme weather conditions, many of the agricultural practices and traditions that shape and identify indigenous communities are being drastically and rapidly altered.

In Sagada where I come from in the northern Mountain Province of the Philippines, we have a calendar that is not counted in terms of days or weeks but is rather indicative of the particular agricultural activity of that period. Each month is divided according to specific indicators, either activities in the field or the blooming of certain plants. For example, our year begins with *Kiling*, which coincides with October in the Roman calendar, and this is the time for sowing rice grain on the seedbeds. *Kiling* comes from the name of a small bird whose chirping at this time indicates that the typhoon season has ended.

However, the age-old custom of relying on particular indicators to determine what is appropriate and what is not is in disarray due to changes in the climatic conditions. Over the last five years, October proved to be the height of the rainy season and the usual activity of sowing rice grain could not be done. Elders tried to postpone the sowing but were not able to accurately predict when the rains would actually stop or whether there would be any rains at all. The adaptation schemes resorted to by communities such as planting whenever the rains arrived, instead of waiting for more time to ensure that there would be enough water to sustain the fields, is a sign that indigenous communities are in a state of panic. There are many stories of wasted seeds and efforts due to inopportune timing.

With the agricultural cycle thoroughly disrupted, indigenous peoples are now turning to other activities for their livelihood, thereby abandoning agriculture and the culture that has shaped our indigenous communities for generations. It is therefore important to remember that climate change has not only impacted on our people economically but, more importantly and immeasurably, also culturally.

### Climate change mitigation and adaptation schemes

Spurred on by the need to address the negative effects of climate change, the United Nations (UN) agencies, governments, financial institutions and others are continuously developing mitigation and adaptation schemes.<sup>2</sup> These schemes are aimed at reducing greenhouse gas emissions and adjusting to the adverse impacts of climate change. At first glance these schemes appear logical. But are these really the most appropriate and effective solution? Do they truly address the causes of climate change or are they simply serving as smoke screens or guilt-reducing tactics?

For adaptation and mitigation schemes to be successful they must address the basic causes of climate change. The main cause of the crisis that is affecting the world today is not the continued use by indigenous communities of the forests or the rivers. It is rather the over-consumption of the world's resources by a few. Unfortunately, there is little political will amongst those who govern to tackle the roots of the issue of climate change. Instead, market-based approaches are being developed, thereby putting commercial value on the environment and developing climate change schemes directed at earning income. Climate change is now big business. It is for this reason that indigenous peoples are opposed to many of the mitigation schemes being proposed.

### Reducing Emissions from Deforestation and Forest Degradation

During the UN Climate Change Conference in Bali in 2007, governments decided that Reducing Emissions from Deforestation and Degradation (REDD)<sup>3</sup> should be part of the post-2012 action plan (Bali Action Plan) to reduce greenhouse gas emissions. The ideology behind REDD is for Northern countries to pay Southern countries to protect their forests.

REDD is a classic example of a market-based approach to reducing greenhouse gas emissions and biodiversity conservation. Since deforestation and









*Fruits of the oil palm being loaded at a collection center for transport to the processing plant. Tongod district, Sabah, Malaysia - Photo: Christian Erni*

forest degradation accounts for 20-25% of global greenhouse gas emissions, it does make sense to reduce the unbridled exploitation of forests by corporate interests. However, there are several problems with the proposed set-up.

Indigenous peoples have not been involved in the conceptualization process and, so far, the REDD proposals are not addressing the issue of indigenous peoples' tenure rights. Indigenous peoples are therefore concerned that they will be evicted from their forests once governments receive money to protect them. Indigenous peoples who do not have tenure rights to their lands and resources, particularly forests, are therefore at risk of being further marginalized and impoverished.

Furthermore, once governments are compensated to protect the forests, there is a risk that the indigenous peoples' sustainable forest utilization systems will be superseded by government structures that have little or no appreciation of the intricate relations existing between people and forest. In the Cordillera region of the Philippines, reforestation schemes were piloted by different financial institutions such as the World Bank, Asian Development Bank and the European Commission in the early 1980s. Aside from not meeting the original objective of reforesting denuded forests, the projects also opened the path to more opportunities for corruption.<sup>4</sup>

Concerns have also been raised over the ideology behind the initiative. With this initiative, countries or communities are paid for their so-called environmental services, i.e. to protect their forests. There is, however, the danger that the initiative will be promoting environmental blackmail, because governments can now say, "We will deforest our forests unless we are paid not to do so". The Democratic Republic of Congo has already demanded full compensation for their forests, which they threaten to deforest if they are not paid. It is not surprising that many developing countries are in favor of this scheme.

With intensified focus on the importance of forest conservation in tackling global warming, the World Bank is seeking to become the international lead agency on global REDD initiatives. The World Bank has launched a Forest Carbon Partnership Facility to build the capacity of developing countries and to facilitate REDD pilot activities in developing countries. Norway has also announced substantial financial support to developing countries to combat deforestation.

But the basic question here is: who owns the forests? Who has the right to negotiate their use? Governments claim sovereignty over natural resources but it is clear that these are the same governments that have exploited the forest resources to the point of extinction. It is ironic that governments that have de-



*Swidden land and forest of the Dusun indigenous people cleared for oil palm plantation in Tongod district, Sabah, Malaysia - Photo: Christian Erni*

stroyed vast tracts of forest are now being rewarded to protect them.

### **The Clean Development Mechanism**

The Clean Development Mechanism (CDM) is a so-called flexible mechanism under the Kyoto Protocol<sup>5</sup> which allows governments in industrialized countries to achieve parts of their emission reduction commitments under the Protocol through projects abroad rather than through action or policy changes at home.<sup>6</sup> This is also referred to as carbon emissions trading.

In the CDM, **carbon sinks** have been included as a project category eligible for credits. Carbon sinks are areas rich in biological diversity that absorb carbon emitted to the atmosphere. Carbon sinks are a flawed concept, there is no reference to indigenous peoples and it promotes the concept of land monopoly under the guise of climate change mitigation. The carbon sink projects involving large-scale mono-crop plantations have an enormously adverse effect on indigenous peoples as many sinks located on indigenous peoples' land. Forest protection schemes involving carbon trading have also failed to properly address governance and livelihood concerns. Lands in South America have been acquired by rich businessmen or, in some cases, by big environmental NGOs to protect

them from degradation in order to maintain their value as carbon sinks. Again, indigenous peoples who have no security of land tenure are victimized by this scheme. It is worthwhile to note, however, that governments are now taking notice of this phenomenon and, hopefully, will soon take action.

The promotion of **renewable energy** is also a component of the CDM. As an alternative to fossil fuels, programs are supported to develop alternative energy sources such as hydropower, geothermal energy, nuclear power and solar energy. Needless to say, indigenous peoples are further threatened by many of these projects. There have been countless struggles launched against such mega-projects implemented on indigenous territories and, with the ever increasing demand for alternative sources of energy, this situation is not likely to change. Classical examples of such struggles are the World Bank-funded Chico Dam project in the Cordillera region of the Philippines in the 1970s, which was successfully opposed by the Igorot people, leading to the formation of the indigenous peoples' organization the Cordillera Peoples Alliance. The Bakun Dam project in Sarawak, Malaysia is also awash with stories of how people will go to extreme means to defend their territories, and the same is true of the Megalaya Dam project in North East India.



Although many CDM projects adversely affect indigenous peoples, there are also examples where private companies and indigenous peoples have made agreements aimed at off-setting greenhouse gas emissions. One example is in North Australia where Aboriginal land owners are being paid to use their traditional fire management practices, thereby reducing fire-generated greenhouse gases.<sup>7</sup>

### Adaptation funds

During the UN Climate Change Conference in Bali in 2007, the UN announced the approval of an adaptation fund to bolster the defenses of poor countries that lack the money, technology and human resources to cope with climate change. The Adaptation Fund was established to finance concrete adaptation projects and programs in developing countries that are Parties to the Kyoto Protocol. The Fund is to be financed with a share of the proceeds from CDM project activities but will also receive funds from other sources.<sup>8</sup> Although indigenous peoples are seriously concerned that the Adaptation Fund is to be funded through CDM projects (because many of these projects have a serious impact on indigenous peoples' lands and livelihoods), they have nevertheless requested that the Fund be easily accessible to, and allow direct access on the part of, indigenous peoples.

The recently proposed Climate Investment Fund to be administered by the World Bank also contains an adaptation fund (the Climate Resilience Pilot Fund) and has therefore been heavily criticized for undermining the Adaptation Fund agreed under the UN Framework Convention on Climate Change (UNFCCC). Again, indigenous peoples fear that their concerns and request for inclusion will be ignored and that they will once again be the losers rather than the beneficiaries.

### Agro-Fuels

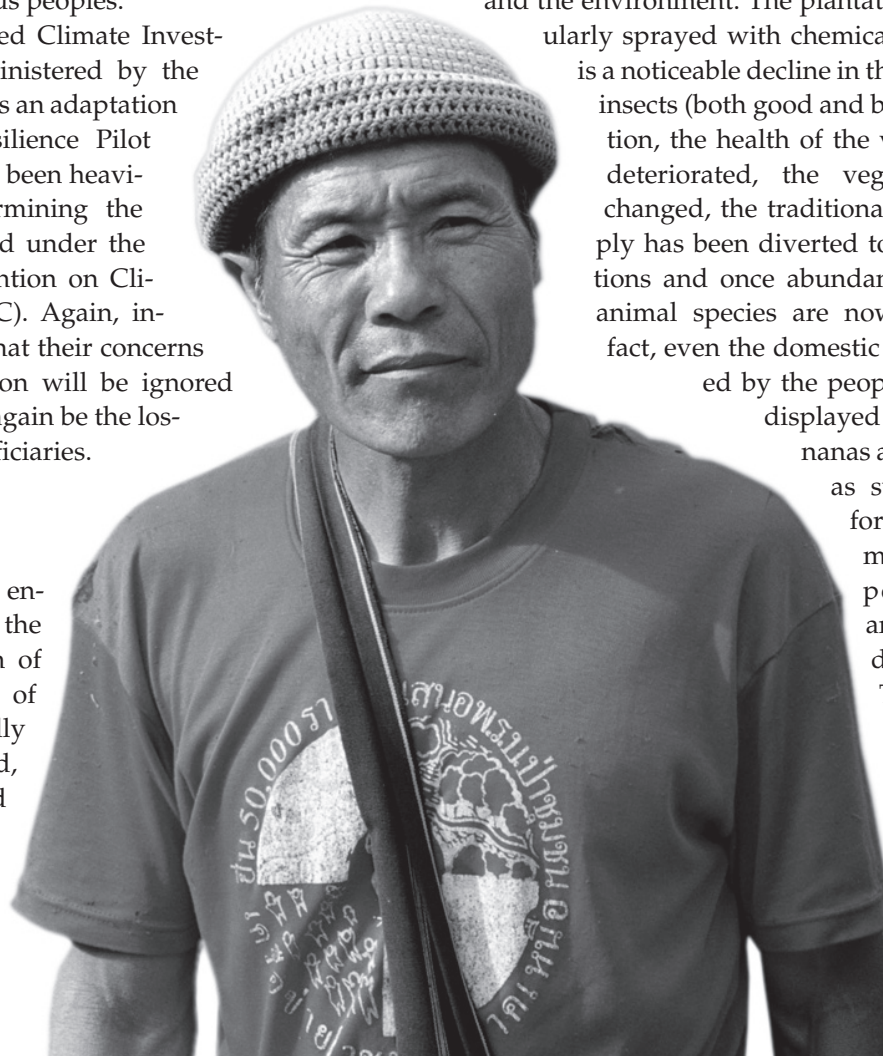
Linked to the renewable energy programs within the CDM is the production of agro-fuels. Large tracts of farmland, traditionally used for producing food, are now being converted into plantations to produce agro-fuels. Corn,

cassava, sugar cane and other food crops are being produced not for the table but for cars. Reports from various UN agencies show that agro-fuels are threatening the world's food supply and, for indigenous peoples, it is inconceivable that food crops should be grown not to be eaten by people but instead to be turned into fuel.

In Asia, oil palm plantations pose a great threat to indigenous peoples. Increasingly, large tracts of forest and arable land have been, and continue to be, cleared to make way for oil palm plantations, especially in Indonesia and Malaysia. Other countries such as Papua New Guinea and Thailand have also started producing oil palm and there are ambitious plans to promote the cultivation of this crop in Vietnam, Cambodia, India and the Philippines, although here the Senate has started debating the economic viability of such production. Promoters of oil palm plantations, and other industrial plantations, insist on presenting the plantations as a good way of solving multiple problems – they apparently reduce greenhouse gas emissions, create jobs for indigenous peoples and are a better way of managing resources. Nothing could be farther from the truth.

In Sarawak, Malaysia, for example, indigenous peoples are being threatened with displacement due to the expansion of oil palm plantations, and the plantations have a devastating effect on both the people and the environment. The plantations are regularly sprayed with chemicals and there is a noticeable decline in the number of insects (both good and bad). In addition, the health of the villagers has deteriorated, the vegetation has changed, the traditional water supply has been diverted to the plantations and once abundant plant and animal species are now scarce. In fact, even the domestic plants tended by the people have also

displayed changes: bananas are no longer as sweet as before and the tomatoes are pockmarked and prone to drying up. These plants supplement the diet of the indigenous peoples and



their loss means further pressure on the women, who have to walk farther to look for edible plants.

In Indonesia, indigenous peoples claim that forest fires are sometimes deliberately started to clear larger areas for oil palm plantations and there is now an increased number of land-related conflicts occurring between communities due to the drive to acquire more lands.<sup>9</sup> In a roundtable meeting on sustainable agro-fuels, one indigenous participant asked, "Why are we being made to give up our farmlands so that you can produce corn for your cars? We did not ask for more cars. If the land is needed to feed more of our kin, then we would gladly help you produce more, but if it is for cars, what is it for us?"

### Roundtable initiatives relating to agro-fuels

Despite the obvious destructive impacts of oil palm plantations on the environment and studies showing that turning food crops into fuel actually causes more greenhouse gas emissions than it supposedly saves, the United Nations Environment Programme (UNEP) is developing (in partnership with the agro-fuel industry) a so-called guideline for sustainable agro-fuel. This is a spin-off from the Roundtable on Sustainable Palm Oil (RSPO). Indigenous peoples are wary of this and other initiatives such as the Roundtable on Sustainable Biofuels (RSB) as they tend to whitewash the negative impacts of plantations through the introduction of "checklists of compliance" with the guidelines. In both the RSPO and the RSB process very little, if any, indigenous participation was encouraged. There are, however, indications that the UNEP is looking at this issue, and more involvement of indigenous peoples in upcoming meetings will hopefully be the result.

### The climate change discourse, what is in store for indigenous peoples?

It must be noted that indigenous peoples strongly support initiatives to address climate change. It has to be ensured, however, that the initiatives address the root issues of problems arising from climate change and that indigenous peoples have been involved in the design and implementation process. Despite the fact that indigenous peoples have contributed very little to the global climate crisis, they are bearing the brunt of mitigation and adaptation schemes. Yet they are excluded from the processes in which all these so-called solutions are being negotiated. In the UN Framework Convention on Climate Change (UNFCCC) there is no recognition of indigenous peoples as a

specific group. Despite years of trying to influence the discussions, indigenous peoples remain at the sidelines of the official meetings.

Discussions on the issue seem to be deliberately designed to exclude indigenous peoples. The meetings are awash with scientific studies that contradict one another. The discussions are overly technical, perhaps with the aim of excluding those who could contribute with ideas to reverse the negative effects of climate change. At the climate change conference in Bali in December 2007, however, indigenous peoples were adamant that they would no longer be mere spectators or footnotes to the discussions and there was a strong resolve to participate. So we need to keep pushing for the UNFCCC, UN agencies, governments, financial institutions and other actors involved in climate change initiatives to respect indigenous peoples' rights to participate in decision-making with regard to matters affecting their rights, as stipulated in Article 18 of the UN Declaration on the Rights of Indigenous Peoples. □

### Notes

- 1 This statement was presented at the 13<sup>th</sup> session of the Conference of Parties to the UN Framework Convention on Climate Change, 3-14 December 2007, Bali, Indonesia.
- 2 The list of climate change mitigation and adaptation schemes covered in this article is not exhaustive. Other initiatives such as the Forest Carbon Partnership Facility, currently being discussed, are also likely to have a big impact on indigenous peoples.
- 3 Deforestation refers to the process by which the forest is completely altered by clearing it of its vegetative covering. Land/forest degradation refers to the process by which the forest may not be completely altered but some of its characteristics are changed, thereby lowering its value in terms of acting as a carbon sink.
- 4 Reforesting Denuded Lands: A Solution to Poverty and Climate Change? Loretta Ann Tamayo and Minnie Degawan. Paper presented during the Climate, Conservation and Poverty, PCLG Annual Symposium 2007.
- 5 The Kyoto Protocol is a protocol to the UN Framework Convention on Climate Change that has the objective of reducing greenhouse gases. It was agreed on December 1997 and entered into force on February 2005.
- 6 <http://www.fern.org/pages/climate/flexmech.html>
- 7 See "Impact of Climate Change Mitigation Measures on Indigenous Peoples and on their Territories and Lands" 2008, Victoria Tauli-Corpuz and Aqqaluk Lyngé.
- 8 [http://unfccc.int/cooperation\\_and\\_support/financial\\_mechanism/items/3659.php](http://unfccc.int/cooperation_and_support/financial_mechanism/items/3659.php)
- 9 Setra, Mina. AMAN presentation on biofuels, Training/Workshop on Indigenous Peoples and Climate Change, Bali November 2007.

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