



# Getting to the Roots

Underlying Causes of  
Deforestation and Forest  
Degradation, and Drivers of  
Forest Restoration



## Getting to the roots

In just the same way that a healthy growing tree is rooted in deep and fertile soil, our efforts to restore the world's forests should be rooted in a sound and detailed understanding of both the problems to be dealt with and the many successful examples of forest restoration around the world.

Yet there seems to be little interest in identifying the real underlying causes of forest loss and restoration, and putting effective responses to conserve and restore forests in place. Instead, global forest policies and incentive schemes designed to tackle deforestation and forest degradation continue to be dictated by commercial and other economic interests. It is deeply disturbing that governments are prepared to risk yet another failed attempt to stop deforestation in light of the climate and biodiversity crises that Mother Earth and humanity currently face.

This GFC report is the result of a multi-year collaboration with input from hundreds of forest experts around the world. They bring a positive and encouraging message to the table: that deforestation and forest degradation can indeed be successfully tackled, and forest conservation and restoration enhanced, by tackling the real underlying causes of forest loss.

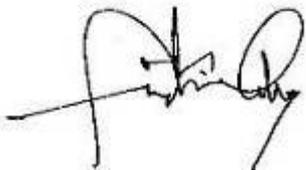
These include reducing demand for wood and land, and supporting cultural values, Indigenous territories, and community conserved areas. To this end it is also necessary to redirect investments, shore up lagging political will and capacity, curb entrenched corruption, and integrate forest and poverty reduction strategies. Mitigating climate change will also have a significant positive impact, since forests are themselves vulnerable to our changing climate. These changes will also require a radical rethink of our priorities and perspectives, moving away from the neoliberal outlook that underpins many of the other drivers of deforestation and forest degradation.

There is a particular need to integrate forest conservation and restoration strategies with sustainable livelihood strategies in line with the Millennium Development Goals, the UN Declaration on the Rights of Indigenous Peoples, and the outcomes of the Cochabamba-based World Peoples' Conference on Climate Change.

Furthermore, the current vogue for Payment for Environmental Services schemes implies that forests can only be conserved when landowners are adequately compensated financially. But this report shows that a more effective approach would be to stem international demand and develop a system of rewards focused on fostering and stimulating traditional value systems and providing alternative livelihoods. Integrated strategies that support sustainable livelihoods are also more financially sustainable than PES schemes.

In fact one of the most powerful conclusions of this report is that some of the most effective strategies do not need significant amounts of funding. Rather they require a political commitment to really making a difference, and a sustainable approach to forest ecosystems that builds on the rights, needs and cultural value systems of Indigenous Peoples and local communities.

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## 2. Executive Summary

This is a report summarizing the findings of the Global Forest Coalition's three year global program of workshops investigating the underlying causes of deforestation and forest degradation (22 national workshops), and the incentives and other underlying causes underpinning successful forest conservation and restoration initiatives by Indigenous Peoples and local communities (8 national workshops).

These events involved over 1,750 people from 24 different countries, coming from Indigenous Peoples Organizations (IPOs), local communities, civil society organizations, government and academia. The resulting national reports are rich in detail and diversity, yet show that there is a remarkable commonality of understanding and analysis, both of the underlying causes of deforestation, and of what it really takes to conserve and restore forests. The conclusions of this process are thus critical for those designing policies to reduce deforestation and forest degradation and restore forests.

Measures to address deforestation and forest degradation are most unlikely to succeed if they do not address the real underlying causes of forest loss. These include an excessive demand for wood, which was identified as a key underlying cause in many countries. Current policies to promote wood-based bio-energy are likely to increase this demand even further.

Spiraling demand for land for plantations and other forms of agriculture, and tense disputes and uncertainty over who owns various areas of land and forest are another important root cause. Here again, current climate mitigation policies add to the problem rather than addressing it, by promoting the expansion of agrofuels, bio-energy and monoculture tree plantations which increases demand for land. Similarly governments are failing to address the rapidly increasing global demand for meat and dairy products which is triggering expansion of the agricultural frontier for the production of animal feedstocks.

Forest loss is often brought about by the development of infrastructure and mining, and urbanization and industrialization projects supported by bilateral and multilateral donors. Redirecting these financial flows would benefit forests and forest peoples much more than pumping millions of dollars, euros and krone into protected areas that people are frequently excluded from. In general, it was found that a great deal of forest loss was down to deliberate government policies and/or governments' failure to develop, implement and enforce proper forest policies. Entrenched corruption is still a major driver of forest loss in many countries.

The lack of alternative economic opportunities was also considered to be an important underlying cause of forest loss in several countries, and it was felt that there should be a far better integration of forest and social policies, especially with respect to the Millennium Development Goals. Climate change was identified as an increasingly important driver of forest loss too.

Last but not least, neo-liberal economic policies and trade liberalization were seen as a root cause underpinning many of the factors above, and many felt that what was really needed was a change to the system itself: the entire concept of unlimited growth on a limited planet needs to be challenged if forests are to survive.

Happily this report also provides an overview of the underlying causes of forest conservation and restoration. That is, those incentives - in the broadest sense of the word - that have motivated people in so many places to conserve and restore their forests. It shows why forest management involving and led by Indigenous Peoples and forest-dependent communities offers a successful way out of the current dilemma. Indigenous Peoples are especially motivated, since their whole lives, culture and identity are bound up with Mother Earth, and they feel a deep sense of responsibility for forests in a way that others do not. In many countries it can easily be observed that the remaining forested areas coincide with Indigenous territories.

Another particularly successful incentive that can be seen to unite many different parties is the need to protect water resources. Brazil already has an excellent participatory program underway that includes forest restoration, involving some 300,000 people in the southern part of the country. Kenya has also identified water resources as the key reason for protecting the Mau forest complex.

This report cites numerous other examples provided by workshop participants that show that forest restoration programs that engage communities and offer alternative livelihoods can be remarkably successful. In addition, the development of agro-ecology and socially and ecologically sound agro-forestry initiatives has a great deal to offer in terms of reducing the social and environmental impacts of industrial agriculture and increasing food security and sovereignty. If deforestation is really to be stopped, the world's forests restored, and climate change mitigated, these are the areas where funds should be targeted.

An inspiring conclusion in this respect is that addressing the underlying causes of forest loss does not require a huge financial investment, but rather a redirection of the financial flows that currently support bio-energy, large-scale tree plantations, mining and other destructive projects. The workshops concluded that forests can be saved and restored by providing lower levels of stable but well-targeted support for integrated programs that respect Indigenous territories and community conserved areas, foster and promote cultural values and knowledge systems, raise awareness where necessary of the importance of forests for water and livelihoods, and offer alternative livelihood opportunities were needed.

Yet this is not how governments are planning to deploy climate finance at present. At the moment REDD funds are targeted at promoting exorbitantly expensive and financially unsustainable payments for environmental services schemes that risk undermining the very value systems that have made forest conservation a success in so many communities. This emphasis on payments for environmental services is triggered by the ambition to develop potentially lucrative emissions reduction carbon-finance projects that will leverage private finance. Furthermore governments have not yet grasped the nettle of challenging the underlying causes of deforestation outlined in this report. Neither are they providing effective and appropriate support to the forest conservation and restoration initiatives undertaken by Indigenous Peoples and local communities.

The report's conclusion that demand for wood and land are still a major underlying cause of forest loss is also significant in light of the extensive subsidies and other forms of support that are currently given to the expansion of large-scale agrofuel and wood-based bio-energy production, an industry that is already triggering a sharp increase in demand for wood and land.

On the eve of the UN Year of Forests, the Global Forest Coalition hopes that this report will help to inspire and focus policy debates about one of the most important challenges of our time: halting deforestation and forest degradation and restoring our forests. We hope it will change the course of the REDD debate, by prompting all involved in negotiations and related discussions to reconsider just what really needs to be done to protect and restore the world's forests.



*Kigelia africana* wood, used in housing construction, Tanzania.  
Photo: Roberto Faidutti

### 3. Introduction

In 1997, the Intergovernmental Panel on Forests concluded that there was a need to analyze and address the underlying causes of deforestation and forest degradation. The panel called upon governments and other stakeholders and rights holders to organize a global workshop on the underlying causes of forest loss. A group of NGOs and IPOs that had been working together in an informal network called the NGO Forest Working Group decided to offer to take the lead in implementing this recommendation. In close cooperation with a broad range of governmental and non-governmental actors, the NGOs and IPOs organized eight regional and Indigenous Peoples' workshops and one global workshop on the underlying causes of forest loss. The results of the global workshop, which was hosted by the Government of Costa Rica in January 1999, were communicated to the Intergovernmental Forum on Forests. However, both the global workshop and the Intergovernmental Forum on Forests also concluded that further analysis was needed at the national level, as many underlying causes of deforestation and forest degradation were country-specific.

The NGO Forest Working Group, which was renamed Global Forest Coalition in 2000, subsequently took the initiative to establish a micro-grants facility to enable national NGOs, IPOs and governments to organize national workshops on the underlying causes of deforestation and forest degradation. Sobrevivencia/Friends of the Earth-Paraguay was asked to host the facility on behalf of the Coalition. This first phase was supported by the Government of France.

Between 2001 and 2003 a total of 10 NGOs, IPOs and government agencies were supported to organize national workshops on the underlying causes of forest loss. After a short funding gap, the facility was reinitiated in 2006 with the support of the Finnish Ministry of Foreign Affairs and, subsequently, the Dutch Ministry of Foreign Affairs and SwedBio.

Since then, it has supported a total of 22 NGOs and IPOs in 22 different countries (Bangladesh, Bulgaria, Cameroon, Colombia, Ecuador, El Salvador, Ethiopia, Georgia, Ghana, India, Indonesia, Kenya, Nepal, Netherlands, Papua New Guinea, Panama, Paraguay, Philippines, Tajikistan, Togo, Uganda and Ukraine). These groups have organized no less than 45 workshops and consultation meetings, in which more than 1650 representatives of governments, local communities, Indigenous Peoples' Organizations, business associations, women's groups, peasant movements, NGOs and scientific and research institutions participated. Moreover, in the course of 2010, eight national workshops were also organized to contribute to a better understanding of what works well: what are the "underlying causes" of forest conservation and restoration? What is it that has caused so many Indigenous Peoples and local communities to conserve and restore their forests? We believe that this report provides a comprehensive answer.

These questions are particularly relevant as many developing countries have started national policy development processes in order to reduce emissions from deforestation and forest degradation (REDD). These policy processes are being supported, in particular, by the World Bank's Forest Carbon Partnership Facility, the UN-REDD program administered by FAO, the UN Development Program and the UN Environment Program, and by a number of bilateral agencies. The aim of these strategies is to reduce deforestation and forest degradation as a contribution to the implementation of the relevant clauses of the Framework Convention on Climate Change. Many Parties to the Framework Convention on Climate Change have emphasized that REDD strategies should address the underlying causes of forest loss, if they are to be effective.

## 4. The drivers and underlying causes of forest loss

*“Unfortunately the brunt of the pressure of globalization and consumerism is being experienced by natural systems and indigenous or other traditional communities that are located in geographically remote areas which are separated from the centers of consumption (mainly the urban and semi-urban landscape).*

*Natural resource systems are being remorselessly exploited for raw material and energy sources, to create and feed into lifestyles that are based on needs that are often artificially created and sustained (often through media campaigns, intellectual discourses etc.) and are based on a blissful ignorance of the cost to Mother Nature.*

*Secondly, the above-mentioned raw material and energy sources are used to fuel the growth of a carbon-based (fossil fuel) industrial economy which is based on the principles of free market competition...and services...without due consideration to the actual necessity of such outputs or the potential ill effects (for e.g. climate change) that they may have on the world at large. As a market-based economy assumes potentially infinite consumers...it also needs sources of raw materials and energy that are infinitely inexhaustible. Unfortunately there is a limit to how much can be extracted from nature without potentially threatening the balance of the ecosystem.”*

Source: India report

### Persistently high demand for wood

High demand for wood is a prominent and persistent driver of deforestation. International demand is primarily generated by over-consuming industrialized countries, but domestic demand can also be high, especially in those countries where wood is the most easily accessed resource. Wood is typically used for house-building, furniture construction, fuel and paper. Yet there is scant evidence of national or international policies designed to address and lessen demand for timber as a means of reducing deforestation. Instead, EU and US renewable energy policies are currently providing massive incentives for the increase of large-scale wood-based bio-energy production, which is already triggering a sharp additional increase in demand for wood.

Increasing demand was specifically cited as an underlying cause of deforestation by the workshops in Bangladesh, Cameroon, Ecuador, Papua New Guinea, and the Philippines. El Salvador, for example pointed to the sale of timber to sawmills, and Nepal noted an increased number of furniture factories. Nepal and Kenya both listed the use of timber for house-building as a key issue.



Cedrela; an invasive species in Tanzania.  
Photo: Gillian Allard



Producing woodchips for bio-energy.

### Kenya: logging the Eastern Mau forest

The need for timber for construction is one of the factors underlying deforestation in the Eastern Mau forest. The biggest logging companies in Kenya, Timsales and Comply, are based in the towns of Elburgon and Nakuru respectively, on the edges of the forest. Logging is the main economic activity in Elburgon and employs about 30,000 people. The big companies collect timber for export, while hundreds of small-scale loggers supply the local market in Nakuru, Molo, Elburgon and other neighboring towns.

Whilst shelter is a pressing need for all, the timber being sold for construction in Kenya tends to be snapped up by the middle and richest classes: in Kenya, the more expensive the material used, the higher one's status in society. Thus the rich opt for stone houses that require large amounts of timber for roofing while the middle class choose all-timber houses. The poorer classes, however, only have the option of grass-thatched mud houses. Timber for construction from the Narok area thus finds its way into homes in Nairobi, Kisii, Kisumu and even as far as Malindi on the coast. There is a high demand for indigenous *Podocarpus* and Red Cedar trees, which are considered reliable and durable.

Demand for wood for household energy remains constant as well, especially because of the high prices of petrol, diesel, kerosene, electricity and gas. Charcoal is the cheapest alternative, especially for households in urban centers. These households also need inexpensive energy to boil cereals, which are their cheapest source of nutrients. Charcoal from Ololoipangi in Narok South is ferried in hundreds of trucks to markets as far away as Nairobi, Kisumu, Kisii, Kiambu and Nakuru. Firewood is the only alternative for rural households.

Yet a recent report from the Kenya Forest Research Institute (KEFRI) and the UN Environment Programme (UNEP) reportedly states that *"The Kenyan Government is committed to saving the Mau Forest and has plans to confront the main cause of its destruction: the presence of 20,000 families inside it. Some have been resettled already."*<sup>1</sup>

Source: Kenya report

Collecting wood or burning it to produce charcoal for fuel is a specific problem in many countries, and was highlighted by the workshops in Ethiopia, Kenya, Nepal and Georgia. In especially poor countries, where electricity outages are an everyday occurrence, it is not just poor communities that will buy and store wood and charcoal as an emergency fuel supply: in the absence of alternative energy sources some form of wood-based fuel becomes a necessity for all. In Nepal and other countries, many households are forced to depend on wood as a fuel all the time because there simply *is* no electricity.

Concern was also expressed by Cameroon, Ghana and Panama that forest products and services are being undervalued, and that this is also an underlying cause of deforestation. Cameroon additionally commented on the over-capacity of processing outfits, which means a constant supply of raw materials is required.

### Spiraling demand for land for plantations and other forms of agriculture

Industrial tree plantations, intensive agriculture and cattle ranching are all major sources of deforestation, and were a major preoccupation for participants in the Underlying Causes workshops. They were identified as major concerns during workshops in Bangladesh, Cameroon, Colombia, El Salvador, Ecuador, Indonesia, Kenya, Nepal, Papua New Guinea, Paraguay, and the Philippines.

Many countries reported high levels of deforestation specifically because forest is being razed to plant monocultures of tree crops such as oil palm (since palm oil is a key ingredient in a wide variety of processed foods, and increasingly used to make biodiesel for transport fuel). But there are problems associated with other tree species and products as well. In the Mymensingh area of Bangladesh for example, plantations of exotic species including rubber, acacia, eucalyptus, pineapple, and banana (as well as cassava shrubs and medicinal plants) are reported to be causing forest degradation, and to have adversely affected the livelihoods of the forest-dwelling Garo and Koch peoples.

<sup>1</sup> As quoted in [www.bbc.co.uk/news/science-environment-11564773](http://www.bbc.co.uk/news/science-environment-11564773)

**Indonesia: national regulations and state aid driving deforestation**

The Indonesian workshop found that Indonesian regulations concerning or relevant to forestry are inconsistent, with a particularly sharp disparity between aims and policies at the national and local levels; and that this inconsistency is the most significant factor causing deforestation and forest degradation. The national government provides aid to the forestry and oil palm sectors including low interest loans, import tariff reductions for wood processing machines and a guarantee of supplies of raw materials. Regulations on plantations and national and international investment agreements also play an important role in stimulating deforestation and forest degradation.

Source: Indonesia report

Cameroon also commented on the attitudes of elite groups, who are willing to destroy important areas of forest to create oil palm and /or banana plantations, in order to generate personal wealth. Another issue that was raised in Bangladesh is the use of 'social forestry' to create what are essentially no more than tree plantations.

**Bangladesh: Sal forest threatened by 'social forestry'**

Bangladesh experiences many of the numerous direct and indirect causes of deforestation set out in this report. However, in the Sal forest in the Greater Mymensingh District, social forestry is also playing a curious role. In Bangladesh, 'social' 'community' or 'participatory' forestry on public forest land entails big cash deals, with loans coming from international financial institutions, which are effectively being used to extend plantations with community participation. However, this approach has actually encouraged government officials to clear forest to make space for plantations and has contributed to the rapid destruction of biodiversity in public forests. In Modhupur, for example, where medicinal plants were once found in abundance, one can hardly find native species such as *Gandhi Gazari*, *Ajuli*, *Dud Kuruj*, *Sonalu*, *Sesra*, *Jiga*, *Jogini Chakra*, *Kaika*, *Sidha*, *Sajna*, or *Amloki*.

Source: Bangladesh report<sup>2</sup>



Tree plantations cause forest degradation and negatively affect livelihoods.

Conversion of forest to agriculture, primarily to produce food for export to industrialized countries, also continues apace in many countries around the world, with devastating impacts. Crops traded in large volumes, such as soya (which is used in foods, as animal feed, and now to produce biodiesel to fuel vehicles) require more and more land for cultivation, leading to the destruction of large tracts of forest in places such as the Amazon.<sup>3</sup> Less well known instances that were also reported include the ginger cash crop in the Chittagong Hill Tracts; and the production of coca (used in cosmetics and food as well as to produce cocaine) in Colombia.

<sup>2</sup> See also <http://www.thedailystar.net/newDesign/news-details.php?nid=102617> for relevant research.

<sup>3</sup> For more information go to: [www.blccarchives.org/2006/07/the\\_bakweri\\_lan.html#more](http://www.blccarchives.org/2006/07/the_bakweri_lan.html#more)

### **Cameroon: losing forests to farming**

Forests in the South-West province of Cameroon are under pressure from the presence of agro-industrial companies, the extension of small agricultural properties, and illegal logging, as everyone – individuals, communities, companies and the state – looks to the land and forests as resources to generate income.

There are two important agro-industrial companies in the study area: the state-owned Cameroon Development Corporation (CDC) which produces tropical commodities including rubber, palm oil and bananas, and Palmol Cameroon, which focuses on palm oil. However, following the economic crisis both have reduced the number of people they employ. This has had a knock-on effect in terms of deforestation, pushing former employees back into illegal forest exploitation.

The situation is further complicated by the persistent non-recognition of communities' rights to land, which over the years has given rise to a local movement, the Bakweri Land Claim Movement (BLCM). The BLCM demands compensation for and the restitution of lands that were initially expropriated by Germany at the end of the 19<sup>th</sup> century, were taken over by the Government of Cameroon in 1961, and are now under the control of the CDC.<sup>1</sup>

The expansion of small farms is also considered to be a result of the negative impacts of Structural Adjustment Programs, as people look to the land to grow food and survive. Poverty and increasing population are also key factors exerting pressure on the forest.

Source: Cameroon report

The clearing of land for cattle-raising is also having a devastating impact. Again this is a well-recognized factor in the Amazon: 73% of Brazil's cattle herds are in areas of the country that were once forested.<sup>4</sup> But it is a pressing concern in other countries as well, and was specifically mentioned in workshops in Colombia and Nepal.

It is also evident that as demand for land increases, so too do the tensions between agribusiness and local communities, and amongst local communities themselves. El Salvador, for example, reported constant pressure from large landowners who wanted smaller farmers to sell their land.

### **El Salvador: pressure to sell up in Jiquilisco Bay**

Since 1990, mangrove forests have diminished by over 50%. The main reason for this is pressure from large landowners seeking to buy land belonging to small and medium landowners in areas such as the mangrove belts in Jiquilisco Bay. People agree to sell because they need the cash, but in so doing they risk losing their previous access to the coastal seas and the lands from which they have traditionally extracted food and fodder.

The major direct and underlying causes of deforestation in this area are considered to be:

- The concentration of land in a few hands, and the change in land use mainly for the establishment of export crops such as cotton and pasture to feed cattle
- The tourism industry developing large-scale projects
- Lack of forest law enforcement by responsible agencies
- Economic poverty
- Climate change phenomena such as recurring tropical storms.

Source: El Salvador report

Ecuador and Cameroon both highlighted the problems associated with small farmers operating at the forest margins. In Ecuador, for example, there are Cachi communities on the coast who want to expand the area they can cultivate. In Cameroon, the creation of small farms of oil palm and rubber trees to help sustain livelihoods is also contributing to increased pressure on forests.

Similarly, intense competition for land in Kenya is also having serious impacts on non-gazetted forests, for a number of reasons including settlers being moved in to forests, clearance of the forest to create new farm land, and the sale of cheap land to farmers from neighboring areas by indigenous and local communities who want to raise money quickly in an attempt to improve their lot. Competition between Indigenous communities and settlers was also flagged as a major problem by the

<sup>4</sup> For more information go to: [www.blccarchives.org/2006/07/the\\_bakweri\\_lan.html#more](http://www.blccarchives.org/2006/07/the_bakweri_lan.html#more)

Bangladesh workshop which expressed deep concern about the practice of *jhum* (slash and burn) cultivation by Bangali settlers in Indigenous territories.

**Kenya: “Maasai Mau is a forest under siege”<sup>1</sup>**

The Maasai Mau Forest is part of the Mau Complex, the largest forest of Kenya. The Ogiek rely on the forest for honey and hunting (Ogiek literally means “*the caretaker of all plants and wild animals*”), while the Maasai depend on it as a source of water and grazing for their livestock during the dry season. Yet the forest is receding drastically, as part of a complex scenario involving indigenous communities pitched into competition with each other because of colonially instigated land laws, and with non-indigenous communities because of demand for fertile farmland. The situation has been further complicated by the illegal issuing of land tenure rights, including to local councillors, by Narok County Council (NCC).<sup>5</sup>

Western capitalism is gaining root among Indigenous communities in Kenya. This is pushing both hunter-gatherer communities and pastoralists to engage in money-making initiatives to improve their lot. This has prompted rural communities adjacent to the Maasai Mau to sell land to raise large amounts of money quickly. The buyers are mainly Kipsigis, farmers from Bomet and Kericho districts, who within less than five years, deforested and degraded thousands of acres of Maasai Mau forest. Cereal production is increasingly encroaching on the forest margins; wheat farming is very attractive as returns are high. But while Narok is now the leading wheat-producing area in Kenya, it is not the quality of farming that has increased but the area under cultivation. This means more clearance of forest areas.

In addition to destroying the forest ecosystem, deforestation is contributing to diminishing water resources and declining land productivity, as evidenced by the extremely severe drought experienced in 2005/6. UNEP has estimated that 10 million Kenyans rely on waters flowing from the Maasai Mau, including for the provision of electricity.<sup>6</sup>

The Ogiek fared extremely badly when the British created tribal reserves in Kenya: initially, the Ogiek were not even allocated reserve land as they lived in small, scattered groups. This differentiation has progressively led to severe tensions between the Ogiek and the Maasai, and associated conflicts over land rights and culture. Since 1993 the Kenyan Government has also been settling people from other communities in the Mau forest. This has exacerbated the situation even further, with the Ogiek alarmed by the destruction of their forests, which is seen as a threat to their existence. These constant tensions have increased many Ogiek people’s reliance on the forest as a place of refuge, but it has also forced many to give up their traditional way of life. About 90% of the Ogiek now live as peasant farmers or livestock keepers, with 10% remaining in the forests.<sup>7</sup> It had seemed that their future in the forests was uncertain at best, but the situation may improve. However, bowing to local and international pressure, the government, through the Mau Secretariat has constituted a 60-person Ogiek council of elders to address the Ogiek issue in Mau forest.

In addition, Kenya’s R-PIN proposal to the World Bank’s Forest Carbon Partnership Facility says that “*Forest dwellers as well as forest adjacent communities...have critical roles to play in the protection, management and conservation efforts in these forests which are also important national assets...The proposed REDD program will be implemented within the framework of the Forests Act 2005 that seeks to entrench community participation in forest management. Under such arrangements, indigenous peoples will benefit from their efforts in forest rehabilitation, afforestation, reforestation and conservation.*”<sup>8</sup>

Source: Kenya report

## Conflict over land tenure

Ongoing uncertainty over land rights was highlighted in Bangladesh, Cameroon, Ghana, the Philippines and Tajikistan as a significant common factor underlying deforestation and conflict, although for a number of different reasons.

Perhaps the most significant of these is the uncertain land tenure and rights of many of those Indigenous Peoples traditionally living in the forests, who have cared for the forests over the centuries. These rights are rarely acknowledged by national governments, and people are often displaced from their territories as a result, sometimes violently.

<sup>5</sup> As described by UNEP, see [www.iapad.org/publications/mau\\_crisis\\_2005f.pdf](http://www.iapad.org/publications/mau_crisis_2005f.pdf)

<sup>6</sup> See <http://www.ogiek.org/news/010206maasai.htm>

<sup>7</sup> See <http://www.ogiek.org/indepth/owc-org-profile.htm>

<sup>8</sup> *The Forest Carbon Partnership Facility (FCPF), Readiness Plan Idea Note (R-PIN)*, Government of Kenya, March 8, 2008 [http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Kenya\\_FCPF\\_R\\_PIN.pdf](http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Kenya_FCPF_R_PIN.pdf)

This has been the case with the establishment of many Protected Areas, and may be the case with REDD, as forests gain in value and become of interest to investors. The Colombian workshop criticized the use of Protected Areas to conserve forests, remarking that it has failed to reduce deforestation over the last 20 years. Similarly, the Philippines workshop asserted that the concept of "protected areas" in the guise of forest protection further violates Indigenous Peoples' rights to their forest resources, by preventing them from roaming and exercising their livelihoods in their traditional territories. Denial of access to traditional lands and alienation from those lands is also leading to a decline in traditional knowledge with respect to managing forests sustainably.

In some countries conflict stemming from legal uncertainty about who has the right to live in various forests is aggravated by constitutional issues concerning ownership of forests and land. Ethiopia's principle of *terra nullius*, for example, means that unoccupied lands are considered as having no owner and the government can give them to anyone it thinks necessary. As the word "*unoccupied*" is not defined, there is a fear that it may include community forests. Similarly in the Philippines, Indigenous forest areas are considered to be public lands or government properties, under Presidential Declaration 705.

Such laws rob Indigenous Peoples of their inherent rights, deprive them of their customary responsibility for nurturing, developing and protecting forests, and legalize land grabbing. The immediate aftermath of this is the devastation of young Indigenous People who are starting to lose their identities and culture. Pushed into the moral maze of urban life, indigenous young either strive to maintain their traditional beliefs or are subsumed by urban culture and its dangers.

This kind of land grabbing also featured in the Colombian workshop, which highlighted the removal of territory from Indigenous *resguardos* for mining exploitation and the extraction of hydrocarbons. Changing the boundaries of allocated reserves in this way adds insult to injury, and is an extreme violation of Indigenous Peoples' rights.

It is unsurprising then, that a further pressing concern is the lack of participation of Indigenous Peoples and local communities in the development of policies and institutions concerned with forest management. This is a widespread and persistent problem, and remains evident even in the development of REDD pilot projects which were initially promoted as being beneficial for Indigenous Peoples.<sup>9</sup>

## Industrialization, urbanization and infrastructure

Industrialization, urbanization and the spread of infrastructure were collectively identified as principal drivers of deforestation in workshops in Bangladesh, Bulgaria, Cameroon, Colombia, El Salvador, Ghana, India, Kenya, Nepal, Panama, Papua New Guinea and the Philippines. Whilst the development of impoverished economies is clearly critical, there seems to be very little evidence of any shift towards forest-friendly economic development, despite requests and demands from impacted communities, peoples and civil society organizations.

Furthermore, it seems that in some countries these factors are also impeding ongoing community projects specifically designed to conserve forests. In India, for example, it was revealed that community conservation of forests is being directly threatened by the government, which is allowing private and public sector companies to set up mines, roads, and other industrial projects. At all these sites, communities have protested against the planned deforestation, but the government has generally overlooked and undermined the benefits of the communities' initiatives, whilst generally bending over backwards to provide subsidies, facilities and other incentives to the corporations in question. In some instances this support even seems to extend to overlooking companies' violation of environmental laws and policies.

The industrial sectors most clearly identified as a direct threat to forests were mining, oil and gas, especially in Bangladesh, Cameroon, Colombia, India, Papua New Guinea and the Philippines. Bangladesh cited gas exploration in the Sylhet region in particular, and Cameroon listed oil pollution of the country's mangroves by Société Nationale de Raffinage (SONARA).

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<sup>9</sup> See: *REDD: the realities in black and white*, Friends of the Earth International, forthcoming publication, see [www.foei.org](http://www.foei.org)

### Colombia: Indigenous communities versus oil

The Colombian meeting on the underlying causes of deforestation and degradation took place in the Colombian jungle, Maloka Maguaré, in the Orinoquia region. Its aim was to bring together traditional spiritual authorities and Indigenous leaders from Orinoquia and Amazonia, to identify threats to their territories. It also documented a case study (Puerto Gaitan Meta); investigated the current state of the process of titling indigenous territories; and reflected on the REDD theme, helping to put this relatively new issue on the indigenous agenda, nationally, regionally and internationally.

The focus on Puerto Gaitan was illuminating. Around the area there are numerous oil exploration fields, and indigenous communities in five *resguardos* where there are conflicts relating to petroleum - *Wacoyo, Vencedor-Piriri, Walabó, Corozal and Tapajo* – say that the oil industry has also brought with it problems of prostitution and alcoholism, and that indigenous people cannot fish in their territories any more.

Since the 1940s, various indigenous groups from the Colombian Orinoquia region have suffered an intense process of ethnocide and territorial expropriation, with thousands killed in order to steal their land. As a result they have lost territories in Puerto López-Meta, in the river Manacacias, in most of the Meta River, in the Carimagua Lake, in most of the Casanare River, at the Caño Cabióna, in Casibare and in a large part of Vichada. They have also been violently evicted from the Yurimena Indian Reservation, Indian Reservation of St. Louis-Puerto Livinaca, part of the Guacoyo Indian Reservation, and part of the Indigenous reserves Awaliba, Planas, Unuma and Vencedor Piriri.

The Sikuni Indigenous group of Puerto Gaitan are particularly threatened in terms of access to their territories and human rights. This is as a direct result of oil exploration and exploitation by ten operating companies, of which the most important is Pacific Rubiales (a Canadian-Colombian producer of oil and natural gas.) INCODER, the Colombian Institute for Rural Development, revised the boundaries of the Indigenous *Resguardos*, with the result that some of the territories that formed part of the *Resguardos* were transferred into private hands. Without any kind of consultation with or agreement from the Indigenous communities, INCODER illegally passed the land titles to colonists that don't belong to the Sikuni community.

Source: Colombia case study

Infrastructure, including the building of roads, housing, dams and other large-scale construction is another principal reason for forests being cleared. Road construction was referred to as a key problem in El Salvador, India, Kenya, and Panama.

El Salvador, for instance, is plagued by the systematic plundering of natural resources due to the implementation of large-scale projects including golf courses, high-end market housing estates, and the construction of new roads, mainly taking place in the Mount San Jacinto, El Boqueron, Cordillera del Balsamo and Finca El Espino areas. Importantly, the El Salvador workshop noted that the majority of large-scale projects are not being developed to benefit income-poor people; on the contrary, they will serve the needs of large businesses and local and international elites.



Clearing of Lapanga Village forest for widening of Road in India. Photo: Kalpavriksh (Pune/Delhi) and Vasundhara (Bubhaneswar)

Colombia also cited IIRSA, the Integration of Regional Infrastructure in South America, which is a transcontinental development plan intended to build new roads, waterways, ports, and energy and communications infrastructure, primarily with a view to extracting and exporting the continent's natural resources and expanding industrial agriculture. 31 priority projects are currently underway across South America, with a total cost of US\$4.3 billion; the single largest of these is the Madeira- Mamoreé-Beni-Madre de Dios hydroelectric and *hidrovia* canal complex in the Amazon – two giants dams, for example, will transform the Madeira river, the Amazon's largest tributary into a mammoth industrial

waterway. As a result of IIRSA, illegal logging along new roads and waterways is also expected to impact extensive areas of the Amazon forest.<sup>10</sup>

Dams were also a concern, especially in the Philippines and Bangladesh. In the Chittagong Hill Tracts in Bangladesh, for example, development intervention in the form of the Karnaphuli hydro-electricity project and Kaptai dam is the main underlying cause of hill deforestation. The conversion of forestland for military use was also noted by Bangladesh.

Urbanization was also identified as a significant driver of forest loss in countries such as Bulgaria, El Salvador and Kenya. The participants in the Kenyan workshop, for instance, noted that, the expansion of urban areas is a major threat to Kenya's forests. Nairobi city is a threat to Ngong and Karura forest; Kakamega is a threat to Kakamega forest; and Nakuru is a threat to Menengai forest. Elburgon and Molo towns are exerting pressure on the East Mau and Molo forests. Towns are growing rapidly in part because of the rural-urban migration rate in Kenya, which is one of the highest in Africa. As soon as a person finishes secondary school, he or she moves to the urban centers because of the perception that it is only in urban centers that careers can be advanced.

The fact that the population is growing in a number of countries also means increasing demand for land, roads and housing, with significant impacts in terms of deforestation and demand for timber, as noted by Cameroon, Ethiopia, Ghana, Kenya, Nepal and Panama.

Tourism, including ecotourism, was also listed as a driver of deforestation by groups in Colombia, El Salvador, Panama and the Philippines (although it should be noted that some other groups also considered it an incentive for forest restoration, indicating that the type of tourism in question is critical, even within the 'ecotourism' subsector).

But a lack of infrastructure can also pose barriers. In Kenya, for example, it was noted that there is virtually no road network in areas bordering Maasai Mau, especially in Narok South. And where a road is present, they are impassable during the rainy seasons. This makes monitoring and enforcement of forest laws against logging and the charcoal trade virtually impossible. Local loggers use donkeys to ferry illegal logs to the markets.

### Poor central planning, lack of political will, and inadequate capacity

A range of problems relating to the capacity and concerns of governments, both central and local, emerged from many of the workshops as an important underlying cause of deforestation and forest degradation (in addition to problems relating to corruption, see above). These issues were of concern in countries such as Bangladesh, Cameroon, El Salvador, Georgia, Ghana, India, Kenya, Panama, Papua New Guinea, the Philippines and Ukraine.

Lack of good governance and effective central planning was a primary concern, although the details differed slightly from country to country. Georgia for example, listed: few government personnel qualified in or understanding Sustainable Forest Management; weak forest management planning; a state monopoly on forest resources management and ownership; a weak and inadequate legal framework; insufficient financing to ensure sustainability in the forest sector; and a failure to apply an inter-sectoral approach.

Similarly the Panamanian workshop criticized the fact that the State has no clear policies regarding: monitoring activities in forests; the National System of Protected Areas; the recognition of ancestral Indigenous territories as conservation units; the economic development of Kuna regions or territories; or strategic development in regions or communities.

The Indian workshop also expressed its concern about the lack of any proper attention to forests in central or state government planning and financial allocations; weak regulatory mechanisms, which are unable to deal with rampant violations by forest mafia, industrialists, and others; and the weakened and distorted mandate of official agencies including the Ministry of Environment and Forests, and State Forest Departments.

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<sup>10</sup> For more information, see IIRSA page, International Rivers, as at 28 October 2010, <http://www.internationalrivers.org/latin-america/iirsa>

In El Salvador, there is a lack of municipal ordinances regulating forestry activities, whilst State policy and environmental legislation still allow for construction projects that involve deforestation.

Ukraine listed imperfect market reforms in forestry, with the State dominating forest management and timber harvesting, a shortage of financial investment in forestry, and short-term economic considerations taking precedence with respect to forest management practice.

Ghana also highlighted inadequate institutional capacity, a failure to commit enough resources to forest conservation and inadequate promotion of research in forestry, as well as inconsistent government policies, poorly constructed timber leasing agreements and unfair revenue disbursement.

In Panama, inappropriate and top down policy-making was again a concern. In addition both private property and state property regimes were found to have failed to restore forests.

Lack of political will and capacity were also considered to be a significant underlying cause of deforestation in countries such as Bulgaria, Cameroon, El Salvador, Georgia, Ghana, Panama and the Philippines. Concerns included lack of adequate equipment, poor management of forest titles, and the use of obsolete husbandries.

In particular, governments are either unwilling or unable to enforce forest laws and other national laws concerning the environment, especially when there are large-scale projects at stake, or competing demands from the forestry and palm oil sectors. In Ecuador, for example, communities are concerned about protecting forests, but the Ministry of the Environment still gives out permits for exploitation, including in protected reserves.

In general this lax approach, which is often combined with corruption, also results in mistrust of authorities by local communities, which will make forest management processes and related consultations that much more difficult in the future. This can be compounded by a decreasing lack of information about forest management and regulations amongst local communities, precisely because they have not been consulted. These are hurdles that will need to be overcome if the world's forests are to be restored.

**India: State attempting to take over community forest management**

The Indian workshop registered attempts by the Forest Department to take control of community forests by converting highly evolved, flexible, site-specific and nuanced Community Forest Management (CFM) initiatives into standardized Joint Forest Management (JFM) projects, in which the State exerts much greater control. This has brought in many new problems that have added to deforestation, forest degradation and the disempowerment of forest-dwelling communities.

Source: India report



Deforestation in the Amazon



Impact of plantations in the Amazon. Photo Camila Moreno.

## Illegal logging and corruption

Illegal logging and corruption continue to be identified as key drivers of deforestation and forest degradation, and were highlighted by workshops that took place in Bangladesh (Sundarbans), Bulgaria, Cameroon, El Salvador, Georgia, Ghana, Indonesia, Kenya, Nepal, Panama and Papua New Guinea. Bulgaria, for example, identified illegal logging combined with corruption as the most serious problem for Bulgarian forests: 71% of people interviewed in their study held this opinion and it was confirmed by a subsequent study.

However, the underlying causes of both illegal logging and corruption are variable, and these causes need be taken into account if such deforestation is to be effectively terminated. The presence of grey economies in the forest sector, 'prevalent economic interests,' and corruption, for example, require a completely different approach to the existence of illegal logging driven by economic and fuel poverty, and lack of alternative livelihoods.

Bribery and corruption remain endemic in many places, and a significant barrier to the successful implementation of other measures that may have been put in place to protect forests. This was specifically identified as a driver by Bulgaria, El Salvador, Ghana, Kenya, Panama and Papua New Guinea. Culprits include government officials, companies and even, on some occasions, community leaders.

Laws may exist, but are not implemented because of a lack of political will and financial resources dedicated to their implementation. This facilitates the spread of corruption, licenses to cut are given in defiance of national and international laws that protect specific ecosystems and endangered species, and in some cases community leaders' consent can sometimes be bought for very little money.

This process was evident, for example, in both the Central and Coastal case studies in El Salvador, which noted corruption amongst some Ministry of Environment officials, who favor and promote the interest of economic elites initiating large-scale infrastructure projects. (El Salvador also observed that the workshop they held had itself helped participants to have a much fuller understanding of the whole issue of bribery and corruption, and the way in which the lack of stringent laws or failure to enforce existing ones is directly related to deforestation.)

### **El Salvador: corruption in Jiquilisco Bay and the Cordillera del Balsamo**

The two case studies considered in El Salvador, Jiquilisco Bay and the Cordillera del Balsamo, revealed common drivers of deforestation, one of the main ones being corruption and a failure to enforce environmental laws.

In the Cordillera del Balsamo case study it was observed that this allows particular interest groups, such as construction companies and large landowners, to bribe public officials. The relative poverty of the area also predisposes people to accept projects especially when they are pitched as being socially responsible.

This comes on top of public policies that are already designed to facilitate large-scale tourism and other projects run by powerful actors in places such as Jiquilisco Bay. Large infrastructure projects such as the planned trans-El Salvadorean road, the Transversale del Norte, are also underpinned by bilateral and international trade and investment agreements.

Source: El Salvador report

In Kenya, political issues were also identified as being largely to blame for the destruction of the Eastern Mau forest. Participants pointed out that much forestland has been excised and given to potential voters from populous communities. Politicians have also allotted themselves huge amounts of excised land that they eventually sell cheaply to raise funds to finance election campaigns. During an open discussion at the Kenyan workshop all the participants agreed that many politicians are also on record as demanding that certain areas of forest be de-gazetted and handed over to squatters from their constituencies (see case study: "Kenya: logging the Eastern Mau forest").

In addition, it seems that morale among the Kenyan forest staff and district administration officials is extremely low due to underpayment. They are therefore prone to receiving bribes, which allows the illegal logging and charcoal trade to flourish (see case study "Kenya: logging the Eastern Mau forest").

Even where roadblocks have been set up to stop the illegal logging and charcoal trade, hundreds of lorries ferrying the very same products pass through these roadblocks every week without being arrested. The officials manning the roadblocks are rich because of the bribes they collect from the roadblocks, and even when arrests are made the culprits are often quickly released. Though illegal timber and charcoal is sometimes impounded, it is often channeled back to the black market by the very same government officials who impounded it in the first place.

Other relevant illegal processes identified included the "Illegal possession of forest land for the purposes of agriculture, habitat and industry" in Mymensingh, Bangladesh; "illegal activities developed by external agents in Kuna territories" in Panama; and "the illegal export of herbal products" in Nepal.

## Economic poverty, no alternative livelihoods

Economic poverty combined with a lack of alternative livelihoods was also cited as a key underlying cause contributing to forest loss, including by Bangladesh, Cameroon, Ecuador, El Salvador, Ethiopia, Ghana, India, Kenya, Nepal and Panama. The Indian report reflects on *"the creation of rifts in the hitherto existing symbiotic relationship between communities and forests, and a failure to provide adequate inputs to forest-based livelihoods thereby forcing desperately poor people to unsustainably exploit forest resources or act as agents for forest mafia."*

A typical situation in the Amazonian area of Ecuador was described, where communities have no economic alternatives, but increasingly find themselves in a situation where they need cash to support their families and bring up their children. People do care about the forest but in emergencies timber is sold at low prices. In San Pablo one person said, *"We sell to traders coming from Quito, we sell the planks to buy clothing, clothes, food and meet the needs of the family."* The sale is at the family level and often hidden from the community authorities because people need money for their families. Once the traders have made contact with a community they try to stay longer to buy more trees.

Lack of employment is also entrenched and has significant repercussions for forests. Across the world, young people without jobs often look to the forests for non-timber products or farmland. In the Maasai Mara game reserve in Kenya, for example, there are a few jobs in the tourism sector, but these are generally much sought after and require skilled workers who are often brought in from outside the district. Apart from that, the only jobs available are in teaching and local administration: there are almost no organizations or corporations that can provide alternative employment for young people: there is just one factory in the Maasai region of Narok, for example, a flour-mill.

Lack of education is another highly relevant underlying cause of deforestation. Without education, people cannot find or create alternative livelihoods or reduce their dependence on forest resources. This is precisely the situation that prevails in the Sundarbans in Bangladesh, where the rate of literacy was found to be extremely low. At the same time few people own agricultural land, and rice paddy cultivation is not suitable for the area. People are thus forced to fall back on extracting resources from the mangrove forests, in order to obtain money to buy the grains they need.

The economic crisis is also triggering increased deforestation in some places. In Cameroon, for example, agro-industrial companies have laid off workers resulting in increased illegal forest exploitation. And in Georgia the population is reported to be increasingly dependent on the use of forest resources because of the stagnation and de-monetarization of the economy.

## Climate change and other underlying causes of the increase of 'natural' forest loss

It is an undeniable fact that forests can be lost through natural disasters such as fire and tropical storm. However, even this discussion is complicated by the influence of people, both globally in terms of climate change and at the national level in terms of forest management techniques.

Thus some countries, including Bangladesh, El Salvador, Georgia, Ghana and Nepal, referred to increasing forest fires, tropical storms, floods and disease that are linked to climate change; and others (Bulgaria, Georgia and Kenya) listed inadequate fire protection measures, inadequate pest and disease control systems, and inadequate attention to planted seedlings.

## Neoliberal economic policies lock in unsustainable consumption and poverty

A number of countries, including Bangladesh, Cameroon, El Salvador, Ghana, India, Panama and Papua New Guinea focused on the fact that neoliberal economic globalization, with its focus on international trade and investment, drives and entrenches all of the above underlying causes (and is perhaps the most subterranean of them all).

Neoliberal policies and trade agreements, together with the debt burden borne by many impoverished countries, lock in a pattern of trade that prioritizes over-consumption, industrial-scale production, and the export of raw materials from the South. It is also a system that benefits large and powerful corporations, who are able to influence both government policy and market prices, and increasingly marginalizes those that are already cash poor and unable to engage in the process, or are seen to be standing in the way. The entire unequal edifice is held in place by trade and investment agreements, and powerful dispute settlement mechanisms such as that of the World Trade Organization.

Structural Adjustment Programs (SAPs) promoted by the World Bank and the International Monetary Fund have also forced increased dependency on exports onto many developing countries, as part of a broad program of economic restructuring that has also increased poverty for millions of people. Thus the workshop in Cameroon explicitly identified the poverty brought about by SAPs as an underlying cause of increased illegal wood harvesting and decreased capacity amongst forest management authorities.

*“There is a close link between processes of globalization and the ecological crisis that we witness today. The logic of the current phase of globalization, dominated by profit interests is based on the externalization of environmental and social costs of development and inevitably leads to ecological degradation, loss in biodiversity, socio-cultural loss etc. Rarely do business interests bear the responsibility for the damage they cause to the environment. Globalization promotes trade and corporate-driven conversion of Indian forest resources to meet the fuel needs of the first world. For example, iron ore, coal and other primary minerals are being remorselessly exploited from Orissa without concern for the sustainability of the natural habitat.”*

Source: India workshop report



Woman carrying fodder. Nepal. Photo: Patrick Durst

## 5. Underlying causes and incentives for forest conservation and restoration

During the workshops on the underlying causes of forest loss and during the workshops on the drivers and underlying causes of forest conservation and restoration, several key incentives and related strategies were proposed to address causes of forest loss and promote the drivers of forest conservation. It is particularly interesting to note that although these workshops were held in many different regions of the world, and represented multiple cultures and approaches, their conclusions were remarkably cohesive, and tell an important tale about what they – the more than 1,200 people that participated in this program – believe to be essential when it comes to the conservation and restoration of the world's forests.

The following is a summary of those proposals (although it must be noted that it does not represent a 'consensus position' as such, rather a 'collective assessment').

### We are the custodians of Mother Earth

Forests are not considered in a reductive, mechanical way by Indigenous Peoples. Rather they are an integral part of peoples' and communities' existence and identity, intrinsic to life itself, both spiritually and practically: the forests are central to many Indigenous Peoples' traditions and culture, and the source of food, medicines and building materials. For some the forest is also home to their gods, and of great spiritual importance.

Thus Indigenous Peoples across the world are highly motivated to conserve forests and restore those damaged by others: Indigenous Peoples identify themselves as custodians of Mother Earth ("*Pachamama*" in Andean cultures).

As Geodisio Castillo observed during the second Panama workshop in 2010, "*Indigenous People have always considered that this land is sacred and that the welfare and health of the planet depend on their health and conservation. This is the vision that has and is still motivating our communities to maintain the conservation and restoration of our territories. We are seeking to recover usurped ancestral lands, and to restore their vitality, to recreate the forests as they once were, before the expansion of Western agriculture and deforestation.*"

Indigenous Peoples' care for forests is amply demonstrated. In Panama, for example, it can easily be observed that the country's remaining forests are located in dedicated Indigenous Comarca areas. In the Mukogodo forest in Kenya, the Yiaku indigenous community's close attachment to the forest is likewise ensuring its protection and conservation.

This holistic approach to forests was identified as the key factor in almost all of the workshops addressing the underlying causes of forest conservation and restoration, including Colombia, Panama, Tanzania, Uganda, and India.



*Carrying a basket of seedlings, Philippines. Photo: Patrick Durst*

**Examples from Uganda: the Bahagya-Bafunjo clan and the Kintu forest**

The forest located in the western part of Uganda, in the Hoima district, belongs to the Bahagya-Bafunjo clan. It is said that the location of the forest was first identified by the ancestor of the clan head. Communities respect the forest as a dwelling place of their spirit/god (*Isowera*). It is from this forest that community and clan members go to appease their spirits and to pray for riches, successful marriages, good jobs, education and money. Communities respect their forest and because of the connotation community members attach to the forest, it has survived encroachers, loggers, and conversion to land for agriculture. It has also become a resource centre, where inter-cultural meetings take place, and research is encouraged. It sets a wonderful precedent for people visiting from other cultures who can see how they might replicate the same good practice elsewhere, and help to conserve standing forests in their respective areas in this era of climate change.

Senabulya Edward (Kintu Forest, Mukono) talked about Kintu, who was the first King of Buganda, the biggest traditional kingdom in Uganda, and about how he loved nature: this forest was a result of his settlement in that place. He says that the forest consists of trees, which are about 300 years old and that it's a source of their livelihood as well as medicine. He says he doesn't allow any timber cutting. This forest has been maintained through cultures and through threats such as, 'you will die if you cut a tree.' He doesn't encourage people to plant western trees (exotics) because they destroy the land and biodiversity. He also said that indigenous trees are more important in enhancing cultures. As a strategy to maintain and protect the forests he also encourages other villagers to plant as many trees as possible. He urges the government to involve local people in growing, maintaining and protecting the forests.

Source: Uganda case study.

**Munda Tribal People in Jharkhand, India**

In the Mundari Khutkatti System of traditional community forest governance system, practiced by the Munda tribal people in Jharkhand, the life and livelihoods of the community have emerged and are centered around the forests that they have protected and restored for generations. There is no concept of monetary incentives. They believe that Mother Earth owns the forests and they are the custodians, the trustees who protect and conserve the forests for posterity.

Forests are an integral part of their daily life, culture and identity, and the forests also sustain their community and livelihood. They firmly believe that monetary benefits cannot be the driving force behind forest restoration and conservation; rather the concern is that money being pushed into the forests will ruin and destroy them.

Source: India case study

The report from Panama observed that protected areas are an essential part of the answer, but *only* if forests in these protected areas are managed by Indigenous People, allowing them to preserve and restore the forests they depend on daily. Yet the role that Indigenous Peoples play in terms of protecting the world's forests seems to be constantly overlooked, as is the potential for building on their knowledge and looking to them to lead the way in driving forest restoration. This goes hand in hand with a pervasive and persistent failure to recognize Indigenous Peoples' rights, including the recognition of territorial rights and land tenure, as expressed in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).<sup>11</sup>

There is a pressing need to completely transform the way in which efforts supposed to reduce deforestation, such as REDD, are being developed (in this and many other respects). It is much more than a question of consulting Indigenous Peoples, engaging them in the design and decision-making processes, and making sure that they benefit equitably from the proceeds generated. At an absolute minimum it is about respecting Indigenous Peoples' access to their forest resources, ensuring that this access is not interrupted or otherwise undermined, and genuinely implementing the principle of Free, Prior and Informed Consent. An even more effective alternative would be to stop commodifying and monetarizing forests, and to look to Indigenous Peoples to lead the way on restoring forests, on the

<sup>11</sup> The Declaration on the Rights of Indigenous Peoples was adopted by the General Assembly on 13 September 2007, by a majority of 144 states. Key Articles relevant to Indigenous Peoples and forests include 18, 19, 25, 26, 31(1) and 32(1). UNDRIP can be found here: <http://www.un.org/esa/socdev/unpfii/en/drip.html>

basis of their knowledge and enduring commitment to them, providing them with appropriate financial and other support as required.

The Colombian workshop came to just such a conclusion. It pointed out that the current REDD proposal does not make any real changes. It does not aim to solve the reasons why agribusiness, monocultures and plantations, paramilitaries and certification processes exist in the first place, but simply to place a price on everything. The Colombians proposed that Indigenous Peoples should seize this moment as a historic opportunity to show that their unified indigenous project could succeed, and in so doing wrest back power and self-determination.

The workshop in Nepal generated a number of minimum guarantees for Indigenous Peoples and local communities that should apply. With respect to protecting livelihoods and developing alternative livelihoods, these included:

- Giving special care to the culture, skill and tradition of Indigenous and ethnic people since they are fully dependent on biological diversity.
- Protecting the rights of Indigenous and local communities with respect to natural resources such as forest, wildlife, medicinal herbs, land, and water resources.
- Ensuring Indigenous communities and ethnic communities have a right to education, including at a higher level, enabling them to protect their rights and access.
- Guaranteeing free alternative energy for Indigenous and ethnic communities residing near the forest for the protection and conservation of forest and environment.
- Providing cattle-raising and grazing facilities to Indigenous and ethnic people.
- Promoting the exploitation of non-timber forest products and tourism based on culture and environment to encourage protection of forests by local communities.
- Increasing the access of indigenous and ethnic community residing in or near forests to health, road, electricity, drinking water, and communications technologies.



Forest and terraces, Nepal. Photo: Patrick Durst

## Communities conserve forests and biodiversity

Community forest management that is genuinely centered on the needs and involvement of local forest-dependent communities emerged as a key recommendation from all the workshops on forest restoration, and also as an area in which there are many successful and replicable examples (many of which are described in this report).

As the report from Panama says, *“Community forest management has been an exemplary achievement. All over the world, Indigenous Peoples and other local communities have shown that they are able to prepare and implement sustainable forest planning models.”* It adds that it is also critical that the cultural and spiritual values associated with the traditional knowledge concerning forest management are rehabilitated and promoted.

### **Nepal: Community Managed Forests**

In Nepal just over one fifth of the country's total forest area (1.219 million ha of forest) is managed by local communities, through 14,337 Community Forest User Groups (CFUGs). These Community Managed Forests are managed more effectively and suffer less degradation than government-managed forests. They provide communities with resources and livelihoods, including women, Janajati and Dalits. The model is both popular and successful, although there are still questions about who owns the land which still belongs to the government.<sup>12</sup>

The case studies outlined in this report clearly indicate that the most successful forest restoration projects are those that genuinely engage communities. The Tanzania workshop pointed out that restoring forests also means much more than just planting trees. The local community in Kongwa, for example, has been motivated to restore their forests because of the functions provided by a restored forest landscape, including soil stabilization, local climate regulation, food security, biodiversity conservation and because it enhances human well being. Villagers have been motivated because they can see that there has been a noticeable decline in soil erosion, an increase in the flow of water from springs, easier availability of medicinal plants and a gradual return of wildlife in the restored forest. They also improved their supply of forest products and services, and realized that their livelihoods were at stake if logging and charcoal-making were allowed to continue unhindered. They were therefore willing and motivated to engage in a participatory forest management process.

Ethiopian participants also asserted that successful community forest management comes about when the communities see that there is more than just an economic incentive to conserve and restore forests.

### **Shinyanga, Tanzania: A Good Example to Follow**

Since 1985 agro-pastoralists in northern Tanzania have restored 250,000 ha of degraded land. The Shinyanga case illustrates the importance of working with local people at all points in the landscape restoration process.

In Shinyanga, as in other local forest-dependent communities, there was already considerable and detailed local knowledge relating to the values and uses of the different tree species. In terms of customary management, this would already determine whether or not trees were cut. But much of the tree and woodland degradation that had taken place was due to external interventions, which were not informed by this detailed local knowledge base.

The communities' knowledge combined with a tradition of reserved grazing areas meant that there was great potential for successfully restoring biodiverse woodlands. Local involvement has been critical. It is based on *ngitili*, a management institution based on traditional knowledge and local institutions, rather than creating new processes. Villages have been encouraged to pass their own by-laws to protect communal *ngitilis* (enclosures of acacia-*miombo* woodlands), and traditional village guards monitor activities in the *ngitilis*. This has ensured the success of the restoration as it has been clearly understood by the villagers. They are now increasingly able to secure their livelihoods and mitigate risk, by obtaining dry season fodder and other non-timber forest products and services.

As a result, the protected *ngitilis* are enhancing the conservation of biodiversity. For example, at least 10 important medicinal plants have been recognized in *ngitili*. Landscape restoration has also benefited greatly from the Tanzanian government's push towards decentralization, which has involved the allocation of clear land rights to local communities.

Source: UNEP-WCMC<sup>13</sup>

It is critical that forest restoration projects are thoughtfully designed however. The Tanzania report, for example, asserts that it is now standard for the principles of multiple-use forests, with biodiversity conservation and management guidelines, to be adopted in most community based forests.

The Ugandan workshop, on the other hand, notes that there has been "*token reforestation*" in and around the Eastern Mau forest. Participants reported that this is being undertaken by a range of communities and individuals who have established tree nurseries for sale, logging companies, NGOs and the government. However, despite the nobility of purpose, most trees planted are exotic

<sup>12</sup> Community Perspective in REDD Mechanism, powerpoint presentation by Bhola Bhattarai, General Secretary, FECOFUN, 25 September, 2009 to Global Forest Coalition Regional Workshop on REDD, Bangkok

<sup>13</sup> See *Investing in people and nature. Introduction to the demonstration portfolio* [www.unep-wcmc.org/forest/restoration/globalpartnership/docs/portfolio.pdf](http://www.unep-wcmc.org/forest/restoration/globalpartnership/docs/portfolio.pdf)

eucalyptus and cypress trees, simply because they are fast growing. This is degrading the indigenous Eastern Mau forest and threatening rivers (since eucalyptus in particular, is notorious for its water requirements).

It is important that native tree nurseries are established. A lack of native seedlings has been shown to be a limiting factor in community reforestation schemes, such as Brazil's *Cultivando água boa* program (see below), which could have planted a more diverse array of trees.

In some countries there is also a need to protect existing community forest management. Participants in India, for example, expressed their desire to stop community forest management initiatives being taken over by India's Joint Forest Management process, which ultimately ignores or undermines existing community institutions. It will also entail safeguarding against the misuse of relevant laws by other vested interests intent on using them to take control of forest lands.

Participants in Ukraine also recommended decentralization and community forestry in the forest sector, and added that they supported compensating forest owners who are prevented from harvesting their timber for ecological reasons. They plan to disseminate their experience of the Ukrainian-Swiss Forestry Development project, FORZA, which has ensured broad public involvement of local communities in forest management decision-making processes.

Facilitating community engagement in forest management is critical. Uganda made reference to financial incentives for example: the communities around the Mabira forest in Uganda are implementing a collaborative forest management arrangement that includes giving communities ten hectares of land which they can either plant with trees themselves, or lease for reforestation. However, the Ugandan report also commented that communities are developing very high expectations of schemes that incorporate financial rewards, such as the UN's proposed Reducing Emissions from Deforestation and forest Degradation (REDD) scheme, and that they become disappointed and disillusioned if their expectations are not realized.



Community Protected Lapanga Village Forest in India. Photo: Kalpavriksh (Pune/Delhi) and Vasundhara (Bubhaneswar)

Nepal also observed that successful community forestry also requires a supportive legal framework, a dynamic process of policy change, and support from outside agencies such as donors.

Overall national development strategies, sector policies and ongoing forestry initiatives that are firmly grounded in community-led forest management and restoration have been shown to be a remarkably successful way of ensuring that forest restoration schemes work.

## Protecting and promoting livelihoods as a driving force

A further key feature mentioned in most workshops was the need to address the economic poverty of many forest-dependent communities around the world, especially where that poverty forces communities into increased and unsustainable reliance on forests. Sustaining and improving local communities' livelihoods is an important incentive that motivates people to restore forests. But it was also clearly acknowledged in several reports that the fate of the world's forests is tangled up in the dominant economic system, which entrenches peoples and communities in poverty, and drives deforestation by promoting logging, industrial agriculture, mining and oil extraction, and other damaging activities.

There was thus a strong call by workshops such as those held in India and Papua New Guinea to challenge the unsustainable fossil-fuelled process of globalization and the wrong-headed form of 'development' that accompanies it and is disempowering forest-dwelling communities. The El Salvador group also noted that women are especially engaged in managing forests, and that it is necessary to challenge the patriarchal system in which many women live to help them take a further positive step towards preserving natural forests.

Part of this challenge – and a key factor from the perspective of the world's forests, is a sharp reduction in consumption in rich industrialized countries. This would entail reducing demand for timber, curbing the excessive power of transnational companies, and stopping allocating forest land for mines, industries, roads and others large-scale commercial or 'development' projects. In place of the current economic process, governments, communities and people should adopt alternative sustainable processes that provide basic livelihoods and social security to all people, enable fair trading, and sustainable and equitable consumption levels. A shift to non-fossil fuel and non-timber fuels could also help protect forests from oil exploration, harvesting for fuel and climate change, whilst provide energy to energy-starved communities.

Responses that promote and create alternative livelihoods are also vital. There was a strong call from many workshops to alleviate poverty by creating alternative economic opportunities and other ways of securing livelihoods, health care and education. India, for example, proposed helping communities sustain forest-based livelihoods, and providing other sources of employment and livelihoods, including by extending India's National Rural Employment Guarantee Act (NREGA). In Tajikistan, women's NGOs have created a platform for cooperation and the development of microcredit programs, to create employment for women in environmentally-friendly businesses in remote mountain areas. The Kenyan workshop supported ecotourism as an alternative means of income (although it should be noted that this was also identified by a workshop in another country as a cause of deforestation, so the nature and impacts of the ecotourism in question are critical). Ukraine also focused on the need for a new and holistic vision accompanied by a participatory and interdisciplinary approach to research, to successfully combine the protection, restoration and enhancement of forests with improving the welfare of mountain communities, where unemployment and depopulation are pressing issues.

There are many examples of successful community forest management that provides a basis for sustainable livelihood opportunities. In the Taungiya villages in north Bengal, for example, the forest village community is the main force behind the regeneration and conservation of forests in the area. Even without wages, the communities work and sustain their livelihood from the incentives that are generated in the form of land that can be cultivated, inter cropping and NTFP.

In Orissa, in India, communities control around one third of the forest, even though they have had to defy the dictates of the forest department to do so. Forests have become a way of life for these communities, contributing to the revival of their culture and sustaining them, in terms of Non-Timber Forest Products (NTFP), and Minor Forest Products (MFP) including timber and from intercropping. They have also developed linkages with the market to sell their NTFP and MFP products, defying the rules and regulations of the forest department. In previous times the forest department would have objected, but now they tolerate these initiatives. The communities feel that India's 2006 Forest Rights Act should give them their much needed legal right of governance over their forests, and that it provides a great fillip towards the continuing process of forest restoration and conservation in the long term.

Some workshops also suggested that forests and forest livelihoods could be used more strategically. Nepal, for example, observed that community-based forestry institutions are also a form of capital asset, providing goods and services for the improvement of rural livelihoods that goes beyond forestry. Cameroon suggested considering forests less as a source of economic products and more as a means of supporting development in general and the well-being of the local communities in particular. The Tanzanian report also reminds us that we should not forget that the small act of planting a tree can help us achieve the Millennium Development Goals: a leaf should be taken from the 'ngitili' restoration project which has contributed directly to the achievement of the Millennium Development Goals, improving household incomes, education, and health, whilst restoring biodiversity and ecosystem integrity (see Tanzania report).



*The leaves of the Lophira used in a tree-related ceremony, Cameroon. Photo: Roberto Faidutti*

## Where there are forests, water will flow

Conserving forests with a view to protecting local water resources was also highlighted as a particularly important incentive in a number of workshops investigating communities' incentives for forest restoration, including Brazil, Colombia, and Tanzania.

In Colombia it was observed that communities are already experiencing severe consequences associated with lack of water resources, and that they attach great importance to the forest for the part it plays in the provision of water, oxygen, and temperature regulation, as well as maintaining biodiversity and providing food resources. These various reasons "intertwine" to form the motivation for conservation and restoration.

Similarly, the Brazilian case study says: *"From the testimonies we collected at the workshops, the most emphatically mentioned motive for restoring forests was undoubtedly to secure water supply. Although the importance of forests for biodiversity, food collection, hunting and extraction were also mentioned, the role of forests in the water cycle and to guarantee constant water supply has been mentioned as the key element bringing actors together for a restoration initiative, even among groups with different interests in the territory."* Among the surveyed projects and initiatives, watershed protection and the recovery of riparian forest appeared as the key constant element, capable of engaging traditional communities and indigenous peoples, as well as family farmers and even agribusiness; it also mobilized local and state governments.

With reference to a specific example - an ongoing project of reforesting the water springs at the high Xingú River<sup>14</sup> - participants in the Brazilian workshop explained that the project had engaged both large soy growers (who were using GM technology and heavy mechanization) and Indigenous People at the Xingu Indigenous Park (a forest enclosure surrounded by a vast area of soy): *"The only common element among them was an inescapable dependence on water to live; it's a matter of survival."*

### **Securing Rio de Janeiro's water supply**

In Brazil, the ecological restoration of forests had an important landmark back in the 19<sup>th</sup> century when, in 1861, Emperor Dom Pedro II named Major Manoel Gomes Archer the first administrator of the Floresta da Tijuca (the Tijuca Forest). Major Archer, with the labor of six slaves, planted 60,000 trees over an area of 16,000 m<sup>2</sup>. This forest is now thought to be the largest urban forest in the world. It is also an exuberant sample of the almost extinct Atlantic Forest. The original Atlantic Forest is considered one of the most biodiversity-rich ecosystems on the planet, and once covered 15% of Brazil's national territory as well as extending into Paraguay and Argentina. Today, 93% of this biomass has been destroyed.

The restoration of Floresta da Tijuca was undertaken specifically to recover the hills degraded by former coffee plantations: Emperor Dom Pedro II was motivated above all by the need to secure the water supply to Rio de Janeiro, at that time the capital of the Brazilian empire.

Today the existence of this urban forest in the city of Rio is key to climate regulation, humidity, and air quality, as well as contributing decisively to the scenic beauty that has made Rio a worldwide tourist destination.

Source: Brazil case study

Ecological restoration in Brazil is now primarily focused on connecting the remnants of the Atlantic Forest and creating (and securing) ecological corridors, biological refuges, riparian forest and forest cover close to water springs. The Atlantic Forest has received special attention in terms of forest restoration because seven out of the nine largest hydrographic basins in the Brazil are located in this densely populated biome. Research into ecological restoration has been developed by public agencies (EMBRAPA) and universities since the 1980s.

Proposals for forest projects are increasing steadily as well. In 2005, for example, 254 proposals related to the restoration and planting of vegetation in riparian forests (rivers, lakes and other water bodies) were submitted to the National Environmental Fund (Fundo Nacional do Meio Ambiente,

<sup>14</sup> See <http://www.socioambiental.org/inst/camp/xingu/pgn/rioxinqueregiao.html>

FNMA). However, due to the low availability of native sprouts/seedlings in forest nurseries, these forest restoration projects are frequently implemented with a very low variety of species.

**Brazil: 'Cultivando água boa'**

Brazil's program on 'Cultivating Good Water', launched in 2003, exemplifies forest restoration, and demonstrates its potential to catalyze other actions and engage communities.

The program focuses on the southern region of the country, where a forest of up to 100,000 km<sup>2</sup> once covered a vast area from the states of Minas Gerais and São Paulo, to the southernmost part of Brazil, in Rio Grande do Sul. Under the shade of this huge subtropical 'Forest of Araucárias' (*Araucaria augustifolia*) several other commercially valuable species flourished: *cedro*, *imbuia*, *gameleira*, *timbuia* and *angico*. But after 150 years of systematic exploitation – initially to build housing for settlers, to provide energy and to clear land for agriculture, and subsequently to export as timber - this rich forest ecosystem is virtually extinct, and the forest is gone.

But the economic success and dependence of this agriculture region is still intrinsically dependent on the availability of water for irrigation, and there are several innovative public programs focused on improving the supply and use of this common resource. The Cultivating Good Water Program, launched in 2003, incorporates sustainable development and integrated water management and has been hugely successful. This is partly due to the fact that it involves communities: there are now close to 300,000 people engaged in this holistic process. During the sixth meeting of the program, held in Foz do Iguaçu in 2009, 4,300 participants met for two days to evaluate the program, which now reaches more than 118 micro hydrographic basins in Paraná. Over the six years of its existence the program has:

- Restored 100,000 hectares of forest
- Planted 44 million trees
- Recovered 500 kilometers of riparian forest
- Nurtured over 2.5 million seedlings, of more than 65 species of native flora
- Established 10 ecological refuges for wildlife, that have helped the recovery of many species including *gato-maracajá* (*Leopardus wiedii*), *gato-do-mato-pequeno* (*Leopardus tigrinus*), *jagatirica* (*Leopardus pardalis*), *veado-bororó* (*Mazama nana*) and *cervo-do-pantanal* (*Blastocerus dichotomus*)
- Created a body of 10,400 environmental educators
- Organized 1,700 waste workers (*catadores de lixo*) in associations and cooperatives
- Improved the quality of life for 758 fisherman and their families
- Celebrated the fact that 3 indigenous communities had an infant mortality rate of zero in the previous year
- Greatly improved the medicinal herbs gardens, some of which are now providing herbs to the unified health system (Sistema Único de Saúde)

The program also incorporates 70 projects and sub-projects including: environmental education for sustainability, water and soil conservation practices, young gardeners, waste collection, organic agriculture, family farming, diversification of production, 'more fish in our waters', medicinal plants, environmental monitoring and evaluation, and the sustainability of indigenous communities.

The project has been so successful that it has developed into a movement: it now includes more than 2,000 partners that are active all year round, including government and public agencies, NGOs, educational institutions, cooperatives, community associations and the private sector. In 2005 the program received the Earth Charter+5 award, which was awarded to the project as a model example of participatory management of socio-environmental projects

Paradoxically, the program is led and mostly financed by Itaipu, the second largest hydroelectric dam in the world, which has caused great environmental and social damage in the region. But even the dam, of course, relies on water to function. Brazil as a whole is a country that relies heavily on electricity generated by hydropower; thus all living in the country have much to gain by protecting and restoring Brazil's forests.

Source: Brazil case study

## Making the transition to agroecology and agroforestry

Another proposal generated by numerous different workshops was for a radically transformed approach to both agriculture and forestry, moving away from the dominant monocultural model that is so harmful to both people and planet. The report from El Salvador observed that adopting new and extending existing agroecological agricultural practices (which are based on ecological principles), together with saving, replicating and exchanging indigenous seeds, and replicating successful forest

management projects would represent a practical way forward that also helps to shift us away from the current economic model.

A key presentation to the 2010 Panamanian workshop also placed much emphasis on the experiences of Indigenous People with respect to the conservation and restoration of forest ecosystems because it is scientifically proven that *"for millennia, our farmers worldwide have used agro-ecological knowledge, also called organic or ecological farming and agro-forestry, to protect crops from pests, fungal infections and viruses. Among these techniques are very sophisticated systems of multiple alternating intercropping and mixed cropping."* The author was particularly concerned about the potential for losing critical knowledge concerning, for example, the uses and management of trees, and wild or cultivated plants.

Although agroforestry and agroecology projects exist, however, they are generally on a small scale at the moment. In Brazil, for example, agroforestry projects are to be found mainly in experimental projects on degraded areas of the Amazon, as alternatives to the use of fire in slash and burn shifting agriculture, and for recovering degraded areas used for extensive cattle-raising. It is important to note, though, that these programs are for small-scale farmers, not for the medium and large land owners of agribusiness.

The Ukraine workshop also focused on moving to a "close to nature" forest management approach. This includes the increased use of shelterwood cutting, selective cuttings to prevent inappropriate forest degradation (tree species composition change, fragmentation etc.), and a ban on clear cutting. Participants also called for systematic monitoring of the state, productivity and biodiversity of forest ecosystems across the whole country. An additional multifunctional approach to forestry would involve the evaluation of multiple forest goods and ecosystem services, developing market conditions and setting-up economic incentives in forestry, particularly pertaining to timber harvesting. There also needs to be an ecological reorientation of the forestry sector through the use of environmentally friendly and energy saving technologies.

### Curbing corruption and strengthen forest protection

In terms of deforestation and degradation, it is very clear from all the workshops that there is a pressing need to improve the legal protection accorded to forests, by strengthening or introducing new laws and enforcing them effectively. Curbing corruption –with respect to the granting of logging permits for example - remains a priority if the world's forests are to be successfully protected and restored. Measures to prevent large-scale illegal logging for commercial purposes need to be dramatically improved.

Some workshops also stated that there is also a real need to properly resource those engaged in forest protection and restoration, including communities and state forest enterprises activities; and to implement internationally agreed standards and processes related to forest management.

### Raising awareness and improving communities' organizational capacity

It was also found that awareness raising and education are critical. This is particularly the case in the Amazonian area of Brazil for example. Despite alarming evidence pointing to extensive deforestation and forest degradation and the possibility that a 'tipping' point of no return is possible, it is also true that the overall presence of still very extensive areas of intact forest cover gives rise to a general idea that there is no need to invest in forest restoration. Many people believe that the forest is mainly there and will 'self-regenerate.' People are often not aware that the Amazon Forest's capacity for self-regeneration is increasingly threatened by the use of fire to renew pastureland for cattle and the subsequent spread of intensively-farmed monocrops (including GMOs and the associated use of agrochemicals, which impact on insects and other pollinators, which are also critical to natural restoration). In contrast, public opinion in the Brazilian states once covered by the Atlantic Forest, are acutely aware that there are few forest remnants, and the public is thus much more focused on the need for restoration.

A number of workshops also concluded that in order to prevent deforestation and promote forest restoration it is vital to improve communities' general ability to self-organize, and to make themselves heard and heeded.

Key aspects that needed to be improved, as identified in El Salvador, included strengthening organizational capacity both generally and with respect to enforcing landrights, securing shelter and food, fending off poverty and protecting forests. An important element of this is forming alliances amongst different stakeholders in civil society, and raising the awareness about the consequences of deforestation in affected communities and amongst the general public.

Participants in Bulgaria also commented that the civil society sector still doesn't have much influence over national forest policy and lacks critical information. All relevant stakeholders, including local communities, should be brought into the forest policy processes through different mechanisms including awareness campaigns, public consultations, and meetings at both regional and local levels. This is one of the most important premises for the successful development of the forest sector in the future.

One way of engaging in these processes is through raising public awareness, through, for example, public hearings and demonstrations, compiling relevant informational databases, using local media to expose mega-projects and their impacts on the environment, and developing plans for community forest management. Ukraine's participants also focused on the need for professional, objective and unbiased presentations and discussions of forest biodiversity conservation and restoration in mass media; and developing study courses focusing on sustainable forestry principles for schools.

In fact the workshops themselves proved to be important and often unprecedented opportunities for people such as those gathered to sit down and discuss forest conservation and restoration. They already have an understanding of the underlying causes of deforestation and reforestation, and their complexity, but opportunities to increase that understanding and coordinate activities are minimal. Potential stakeholders in such discussions include Indigenous Peoples, local communities, civil society organizations, scientists and practitioners, businesses and representatives of relevant national organizations.

#### **Underlying causes workshops: part of the solution**

Many of the underlying causes workshops contributed directly to capacity-building and media work around deforestation.

In Bulgaria, for example, participants observed that the national workshop provided a valuable platform for discussing emerging forest issues. Due to the combination of the workshop and the associated information campaign, many forest stakeholders - especially those engaged at the regional and local level, and young people and women - became aware of current forest policy processes for the first time, which then enabled them to take part in them (including, for the example, the development of the new Forest Act). The Bulgarian Society for the Protection of Birds (BSPB) also increased its capacity to work on forest policy, improved its cooperation with the different forest stakeholders and strengthened its position in the Bulgarian forest sector, also taking part in the elaboration of the new Forest Act. Through the process new project ideas were generated: several project proposals (including a joint project proposal with the Executive Forest Agency) aimed at combating forest degradation and improving forest biodiversity protection were developed and submitted.

In Indonesia workshop participants released a collective statement, which was published in one of the main Indonesian newspapers.

In Tajikistan, the workshop provided the first opportunity in 18 years for a broad and multifaceted discussion of the forest issue involving all stakeholders, thus strengthening the cooperation and united commitment to meeting future environmental issues.

Source: Bulgarian, Indonesian and Tajikistan case studies

## 6. Conclusions: Addressing the Real Causes, and Supporting the Real Success Stories

While there is now wide-spread agreement that deforestation and forest degradation can only be halted if the underlying causes of both are addressed, analyses are often flawed or incomplete. Moreover, there is a remarkable lack of coherence between many national and intergovernmental proposals to reduce emissions from deforestation and forest degradation, and the real underlying causes of forest loss. Indeed, the policies and incentive schemes proposed often seem to be inspired by commercial and other economic interests, and a focus on leveraging private finance, rather than a desire to respond effectively to the identified causes. This brings with it the risk that attempts to reduce or stop deforestation will fail yet again, in spite of the climate and biodiversity crises already unfolding.

This report, based on the opinions of over 1,200 people around the world, and numerous case studies, argues that the most effective measures to stop deforestation and forest degradation, and promote forest conservation and restoration are:

### Reducing Demand for Wood

Demand for wood remains persistently high, both domestically and on international markets, and was identified as one of the most important drivers of deforestation and forest degradation in particular. Yet there is little evidence of governments considering or implementing policies to reduce demand for wood. On the contrary, policies to promote large-scale bio-energy, particularly in the EU and North America, are expected to result in a vast increase in demand. Failing to address demand for wood and agricultural commodities is a key reason why policies such as the proposed Reducing Emissions from Deforestation and forest Degradation in Developing Countries (REDD) program are likely to fail.

The fact that wood is a renewable resource does not compensate for continued demand. Wood still has to be harvested in a sustainable manner, allowing for full natural regeneration. Classifying wood as 'a sustainable product' is to misunderstand the concept of the carrying capacity of ecosystems.

Sustainable levels of harvesting *are* still the norm in many rural communities, where women and children collect small amounts of wood for family use. Wood sovereignty implies balancing local wood consumption and production in a way that sustains the forest as well as the communities that live in harmony with it. However, overall rates of consumption of wood including for industrial use and construction are far too high to be sustainable – thus wood production was explicitly mentioned as a primary cause of forest loss in at least eight countries participating in the program.

In this light it seems highly likely that current and planned policies to promote the rapid expansion of industrial wood-based bio-energy production will lead to further forest loss in the coming decade. Contradictory policies such as these, which could actually add to the climate change crisis, need to be reversed immediately.

### Reducing Demand for Land

The existence of forests is dependent upon the availability of land, not money (contrary to popular thinking in climate circles). For millions of years forests have been perfectly capable of conserving themselves, without any financial investments or 'sustainable forest management.' Problems arise when there is competing demand to use the land on which they are growing, for plantations, agriculture, mining and other industrial activities. It follows that the most effective policies to conserve and restore forests are also likely to be those policies that reduce demand for land.

In sharp contrast, however, many existing policies are increasing demand for land, including those policies that provide subsidies and other incentive schemes to promote agrofuels and bio-energy production: these squarely contradict the efforts being made by the international community to reduce deforestation. A recent report calculated that current European agrofuel targets for transport alone will require up to 69,000 square kilometers of additional land by 2020.<sup>15</sup> Abandoning biofuels targets and

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<sup>15</sup> This figure does not include the additional use of agrofuels for heat and electricity generation in the EU or the proposed use of agrofuels for aviation. Institute for European Environmental Policy (IEEP). November 2010. 'Anticipated Indirect Land Use

subsidies and other incentives for agrofuels and large-scale bio-energy is a pre-condition for forest conservation.

Another important factor underlying rapidly increasing demand for land is the rising consumption of intensively produced meat and dairy products. This requires massive amounts of land for the production of soya and other animal feedstocks, as well as for livestock farming.

As noted by many of the national reports submitted, large-scale monoculture tree plantations are also a significant factor in increasing demand for land, as well as monopolizing water resources and degrading soils. This combined with the fact that monoculture tree plantations result in very low levels of employment per hectare of land means people tend to be pushed to the forest frontier creating additional stresses on forests.

In contrast, small-scale sustainable and integrated farming systems based on agro-ecological principles support food sovereignty and provide far more employment per hectare of land, thus diminishing pressure on forests and other ecosystems.

### Supporting cultural values, Indigenous territories and community conserved areas

As shown in the reports on the underlying causes of forest restoration and conservation, there are many examples of Indigenous territories and community managed areas where forests have been successfully and sustainably used and conserved, and/or restored.

Indigenous Peoples and local communities in countries as varied as Nepal, Brazil, Colombia, Uganda, Panama, India and Tanzania have proven that it is possible to conserve and restore forests providing sustainable livelihoods at relatively little cost. Their reasons for protecting their forests tend to have far more to do with cultural and spiritual values, and a proper understanding of the role forests can play in sustaining livelihoods and water resources, than with financial incentives. They vary from cultural pride and the feeling that “We are the custodians of Mother Earth” to simple awareness that forests are fundamental for sustaining water resources and people’s livelihoods in general.

Thus successful forest conservation and restoration policies should respect, foster and provide appropriate incentives that support the cultural and traditional value systems of Indigenous Peoples, and their commitment to and knowledge of forest conservation and restoration. Subsidies and other financial incentives can play a role in such support schemes, but they also risk destroying the very value systems that triggered successful forest restoration initiatives in the first place, by suggesting that there is an obligation to conserve forests only when one is paid for it.

A further important conclusion with respect to so-called Payment for Environmental Services (PES) schemes is that simple awareness-raising programs about forests ecosystems, for both policy-makers and local communities, are often enough to generate public and political will to protect forests. Such policies are far more economically and financially sustainable than PES schemes, which can be exorbitantly expensive and require constant financial investment over time.

Respecting the UN Declaration on the Rights of Indigenous Peoples is also critical. It is not just about human rights; it is a fundamental policy statement that addresses conflicts over land tenure and recognizes Indigenous territories in which, due to their value systems, Indigenous Peoples have conserved their forests.

Other factors important to supporting community conserved areas and Indigenous territories are improving the organizational capacity and endogenous institutional structures of communities; and supporting agro-ecology, and ecologically and socially sound agro-forestry initiatives, including within the framework of food and energy sovereignty strategies.

## Redirecting financial investments

Infrastructure, mining, industrialization and urbanization were all mentioned as significant drivers of deforestation in many countries. It should be highlighted that most of these projects are financed partially or entirely by bilateral and multilateral donors and investors.

Talking about the need for 'policy coherence' is a euphemism which detracts from the fact that institutions like the World Bank still spend ten times more on projects that destroy forests, than they do in terms of the money being channeled through facilities which claim to reduce deforestation such as the Forest Carbon Partnership Facility and Forest Investment Program.

It is a prerequisite that efforts to reduce deforestation focus on redirecting forest-destroying financial flows and perverse incentives.

## Addressing lack of political will and capacity, and curbing corruption

Poor central planning, lack of political will, corruption and inadequate capacity to develop and implement proper forest policies were identified as significant underlying causes in many countries.

This includes forest loss as a result of deliberate government policies, and because of the failure of many governments to ensure compliance with existing forest policies. There is a pressing need to strengthen the capacity of forest conservation institutions at the national level (including to reduce incentives for corruption), whilst respecting and strengthening the autonomous institutional structures of Indigenous Peoples and local communities, with a view to building on their knowledge and commitment in relation to forest conservation and restoration.

Moreover, governments should address illegal logging and corruption by taking strong measures to improve law enforcement, including initiatives that ban the import of illegal and unsustainably produced timber

## Integrating forest and poverty reduction strategies

Overconsumption and the resulting demand for wood and land must be addressed as a priority, but there is also a clear need to address economic poverty and the lack of alternative livelihoods, which were identified as drivers of forest loss too. A lack of alternative economic opportunities was pinpointed as an underlying cause of forest loss in several countries. Integrated land reform and sustainable agriculture policies that promote ecologically sound forms of farming and provide ample work and income for rural peoples, whilst occupying a relatively small area of land, would help to challenge forest loss. Protection of forests can also help to ameliorate poverty directly, since forests often provide much needed resources that people can and do turn to in times of greatest need.<sup>16</sup>

Overall, there is a clear need to integrate forest conservation and restoration strategies with sustainable livelihood strategies, in line with the Millennium Development Goals (MDGs). Proper, socially just and rights-based forest conservation and restoration policies can contribute significantly to the implementation of not only MDG 7 on environmental sustainability, but also many of the other MDGs. Well-designed policies can help to alleviate poverty; contribute to food sovereignty; benefit women by lowering the burden of collecting fuelwood, water and fodder; and contribute to the eradication of deadly diseases. Poorly-designed policies, on the other hand, can violate the rights and needs of local communities, especially if those rights and needs are not integrated from the start.

## Halting Climate Change

Climate change is also a significant underlying cause of the current increase in those drivers of forest loss that used to be classified as 'natural' including forest fires, droughts, storms and pests. Some of the most important forest ecosystems in the world, including the Amazon and the boreal forests, could be lost within a few decades due to climate-related influences.<sup>17</sup> In the medium to long term, climate

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<sup>16</sup> Forests and poverty reduction, Food and Agriculture Organization website as at 9 November 2010

[www.fao.org/forestry/site/livelihoods/en/](http://www.fao.org/forestry/site/livelihoods/en/)

<sup>17</sup> Secretariat of the Convention on Biological Diversity (2010) Global Biodiversity Outlook 3. Montréal, <http://gbo3.cbd.int/the-outlook/gbo3.aspx>

change could become the main cause of forest loss, unless it is effectively halted.

That is why any regime that pretends to reduce deforestation must also support and promote efforts to mitigate and adapt to climate change or it is doomed to failure. For example, due to many unresolved issues around permanence, leakage and proper accounting, the inclusion of forests in carbon markets will undermine the overall climate regime and, as such, could imply the kiss of death for the world's forests.<sup>18</sup>

## Change the System

Neoliberal economic policies were also identified as an underlying cause by several workshops, not least because they themselves are at the heart of many of the other drivers and underlying causes identified above. It is most unlikely, for example, that climate change can be halted or demand for wood and land significantly reduced without a fundamental review of neoliberal economic policies and trade regimes.

Likewise, it is the neoliberal vision of many international financial institutions that causes them to invest significantly more money in profitable forest-destroying industries than in forest conservation (and to justify doing both at the same time). In the end, forest loss will not be halted if we do not achieve a profound change in the system itself, which continues to promote unlimited growth on a limited planet.

## Now for the Good News: We do not Need a lot of Money

Effective forest conservation and restoration is most unlikely to occur unless the underlying causes of deforestation are addressed, and the incentives that really motivate individuals, Indigenous Peoples, forest-dependent communities, and governments to conserve and restore their forests are recognized.

Perhaps the most inspiring conclusion of this report is that many of the most promising strategies to do this do *not* need a significant amount of funding. Rather, they require a progressive and far-sighted approach to forest ecosystems that builds on the rights, needs and cultural value systems of Indigenous Peoples and local communities.

What they do require, though, is significantly ramped up political will on the part of governments, and a redirection of existing financial flows. This latter would have to include the elimination of subsidies and other forms of financial support for bio-energy and agrofuels. It is estimated that in 2008, the European Union spent more than 3 billion Euros subsidizing agrofuels production.<sup>19</sup> It also implies re-directing investments away from intensive meat and dairy consumption and production, and destructive infrastructural, mining and urbanization policies.

Of course, strengthening governments' capacity to develop, implement and enforce proper rights-based and socially just forest policies does require some resources, but not the tens of billions of dollars per year that is currently being mooted. The conclusions of this report make it clear that forest conservation could be successfully incorporated into a broader global agreement in which forest-rich countries commit themselves to forest conservation, while Northern countries commit themselves to the necessary greenhouse gas emission reduction targets (the People's Agreement of Cochabamba<sup>20</sup> proposes 49% reduction by 2020 compared to 1990 levels); repaying their ecological debt; implementing policies which greatly reduce demand for energy, wood, animal feed and other agricultural products; and providing significant new and additional financial resources for climate change mitigation and adaptation in general (the People's Agreement of Cochabamba proposes 0.6% of GDP).

There needs to be a new focus on awareness-building, not only about the importance of forests for human survival and the livelihoods of local communities, but also about the cultural and traditional value systems that have triggered so many people to conserve and restore forests.

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<sup>18</sup> Global Forest Coalition and the IUCN Commission on Environmental, Economic and Social Policy 2008, The Hottest REDD issues: Rights, Equity, Development, Deforestation and Governance by Indigenous Peoples and Local Communities, GFC 2008, <http://www.globalforestcoalition.org/img/userpics/File/publications/Hottest-REDD-Issues.pdf>

<sup>19</sup> See [http://www.globalsubsidies.org/files/assets/bf\\_eunion\\_2010update.pdf](http://www.globalsubsidies.org/files/assets/bf_eunion_2010update.pdf)

<sup>20</sup> People's Agreement of the World Peoples Conference on Climate Change and the Rights of Mother Earth, Cochabamba, Bolivia 22 April 2010

The concept of 'Payments for Environmental Services' is unlikely to stimulate such value systems, as it suggests that forests can only be conserved when the owners of the land upon which they grow are compensated financially. More appropriate and equitable incentive systems for forest conservation and restoration by Indigenous Peoples and local communities may include financial rewards, taking into account the principle of fair and equitable sharing, but such rewards should be targeted towards fostering and stimulating traditional value systems and providing alternative livelihoods where needed.

Such integrated strategies to support sustainable livelihoods for women and men are far more financially sustainable than PES schemes. Most importantly, they contribute to the implementation of the Millennium Development Goals and human rights instruments like the UN Declaration on the Rights of Indigenous Peoples.



*Young Massai woman carrying fuelwood collected in poor shrubland, Tanzania.  
Photo: J. Lejeune*

## 7. Annex

### Bangladesh

The Institute of Cultural Affairs Bangladesh organized a workshop on 10 May 2008 which attracted 120 participants.

The main underlying cause mentioned is the capitalist system, which turns the plundering of forests into a lucrative business. Development projects, such as plantations and dams, have also contributed to loss of natural resources.

### Bulgaria

The Bulgarian Society for the Protection of Birds/Birdlife organized a workshop in September 2009 in Kardzhali. It was attended by more than 30 forest and biodiversity policy actors and experts.

The participants agreed that illegal logging and unsustainable forest management were the main causes of deforestation. The majority linked illegal forest practices to corruption in the Bulgarian forest sector. They said civil society should have a much louder voice in the national forest debate.

### Cameroon

On 28-29 August 2009, the Institute of Cultural Affairs Cameroon organized a workshop in Yaoundé on the underlying causes of forest loss. Participants mention the Structural Adjustment Program as a main cause of deforestation. Poverty increased and led to more forestland being converted into agricultural plots. Poverty also increased illegal logging. An increase in rubber and palm oil plantations has also contributed to forest loss.

Cameroon's REDD Readiness report mentions an increase in agricultural activities as the main cause of deforestation, especially slash-and-burn agriculture. The report also notes that, as the main bulk of timber is exploited for export, the interior market is sometimes forced into illegal logging. The exploitation of fuelwood and mining activities are further mentioned as causing forest loss.

### Colombia

A workshop was organized in Villavicencio on 16-18 August 2009 by Grupo Ecológico INEM-GREI and CENSAT Aqua Viva. It was attended by about 40 people, including traditional authorities and governments of indigenous communities. An additional workshop on the underlying causes of forest conservation was held in 2010. (see below)

The participants stated that the expansion of monoculture plantations for agrofuels is a main driver for deforestation. Other major drivers recognized are the armed conflict and large-scale projects. A general problem is the lack of recognition of Indigenous groups and their contribution to forest protection.

The main drivers for forest loss mentioned in Colombian Government's REDD Readiness report for the World Bank are somewhat similar in that they include expansion of the agricultural frontier, construction of infrastructure projects, forest fires, extraction of wood for energy and unsustainable forest management.

### El Salvador

From 30 September to 2 October 2009, the Salvadorian Centre for Appropriate Technology organized a workshop on the underlying causes of deforestation.

The participants agreed that a major underlying cause of deforestation is the implementation of neoliberal policies where natural resources are exploited only for financial gain. Other contributing factors were a lack of law enforcement and corruption.

The REDD Readiness report that the Government of El Salvador submitted to the World Bank cites poverty and population pressure as underlying causes of deforestation and forest degradation. They cite fuelwood extraction and agricultural expansion as direct causes.

## Ethiopia

On 25-27 November 2008, a workshop was organized in Ethiopia by MELCA Mahiber. It took place in Chilimo Forest and attracted over 70 participants.

Participants noted that a lack of clear forest ownership and lack of land rights for local communities is a threat to forests in Ethiopia. Cultural and social values leads to sustainable forest use among local communities but their rights are constantly under threat.

Ethiopia's REDD Readiness plan for the World Bank lists unsustainable forest use (mainly fuel wood), agricultural expansion and weak institutional arrangements as main causes of forest loss.

## Ecuador

Several workshops on the underlying causes of forest loss were held in Ecuador during 2007 and 2008. The number of participants in total was around 120. The workshops were organized by Asociacion Indigena de Limoncocha.

Workshop participants noted weak legislation and poverty as underlying causes of forest loss. For lack of economic alternatives, communities or individual families sometimes sell contracts with logging companies to acquire badly needed money. This often leads to frustration though, when payments are postponed and land is destroyed. Another contributing factor is the lack of land titling, because *"the communities can't protect land if it doesn't belong to them."*

## Georgia

The Vasil Gulisahvili Forest Institute organized a workshop on 8 August 2007 in Tblisi with 20 participants.

Participants noted that the stagnating economy led to the population being increasingly dependent on forest resources. Weak law enforcement, weak forest management and the state monopoly on forest management and ownership also contribute to forest loss. According to the participants, not enough information, finance and research about sustainable forestry is available.

## Ghana

The Institute of Cultural Affairs Ghana held a workshop on 20-21 March 2009 in Accra, where 49 participants were present

Participants mentioned a range of socio-economic and political factors as underlying forest loss; issues of land ownership and the land tenure system; population growth; informality of the Non-Timber Forest Products market; and lack of resources for forest agencies

Ghana's REDD Readiness report to the World Bank suggests that there is no single dominant driver. It says the underlying causes involve a complex of demographic, economic and policy influences, and lists the immediate drivers as: forest industry over-capacity; policy/market failures; burgeoning population; increasing local demand for agricultural and wood products; high demand for wood and forest products on the international market; heavy dependence on charcoal and woodfuel for rural and urban energy; limited technology development in farming; and continued reliance on cyclical 'slash and burn' methods to maintain soil fertility and fire as a tool in land management.

## India

The organizations Kalpavriksh and Vasundhara organized a workshop in Bhabaneswar, Orissa, 26-28 January 2008.

According to the participants, forest loss in India is the result of the wrong path of 'development' being promoted under policies of globalization (such as mining and industries), and the disempowerment of forest-dwelling communities. There is a lack of recognition of and support to communities' initiatives to protect forests, especially self-initiated community forest management.

An additional workshop to analyze the underlying causes of forest conservation was held in 2010 (see below).

## Indonesia

Forest Watch Indonesia organized a workshop in Jakarta on 27-28 October 2008. 41 participants attended.

The workshop participants divided the causes of forest loss in Indonesia in two types: forest conversion and timber extraction. Underlying causes contributing to this are high demand and high market prices for wood and palm oil, and aid from government and financial institutions.

The government's REDD Readiness report states that deforestation in Indonesia can be categorized as planned and unplanned deforestation. They write that planned deforestation is mostly a result of the rapidly growing number of forest plantations for the pulp and paper industry and oil palm. According to the report, unplanned forest losses result from forest fires, forest encroachment, unsustainable levels of logging from legally permitted forest concessions, and illegal logging at small and large scales. The report further mentions that *"as Indonesia's population continues to grow (...), there is also going to be continuing pressure for land reform and reallocation of forest estate to support the growing numbers of people. The forest dependent people give high pressure into forest land since there is limited source of their livelihood."*

## Kenya

In December 2009, the Dorobo Trust organized a workshop in Nakura on the underlying causes of deforestation.

During the workshop, case studies were presented on the underlying causes of forest loss in five different forests. The studies showed the environmental and social-economic benefits that forests provide for their inhabitants. Many forests in Kenya are home to ethnic people who have lived in them since time immemorial hunting wild animals, gathering wild fruits, collecting honey and gathering medicinal herbs. Their traditional lifestyle helps to conserve and preserve the forest.

The conversion of forests into agricultural land is a major concern in Kenya. Participants observe that the Structural Adjustment Program that was set up in the 1980s has also contributed to deforestation.

The REDD Readiness plan also cites agricultural expansion and public or private developments as major drivers of deforestation. But it also points at other drivers including illegal logging, uncontrolled grazing and exploitation for charcoal.

## Netherlands

Two events on the underlying causes of deforestation and forest degradation were held in the Netherlands in June 2007 and May 2008, organized by Corporate Europe Observatory and the Global Forest Coalition. Participants discussed the impacts of the consumption of biofuels on forests within and outside the Netherlands. The workshops resulted in a call for an EU moratorium on new targets and incentives for biofuels, which was supported by almost 200 organizations.

## Nepal

The Institute of Cultural Affairs Nepal organized a workshop on 29-30 November 2007 in Kathmandu, and 63 people attended.

Participants detected a wide range of causes of deforestation, among others population growth, poverty and economic profit. People agreed that poverty is the crucial factor in forest degradation.

Nepal's REDD Readiness Note for the World Bank observes that some of the underlying causes are very broad and include factors such as population increase and its distribution, poverty, land scarcity and the status of Nepal's level of economic growth and commercial development. Governance and cultural factors are cross-cutting and also underlie a number of the direct drivers of deforestation and forest degradation. Unclear land tenure, use rights, and policy and planning are an important contributor to deforestation and forest degradation in Nepal. 63% of all forests and shrub-land, although officially government-managed are *de-facto* open access resources with limited control over their use.

*(See also below for the 2010 workshop on the underlying causes of forest restoration in community-owned lands)*

## Panama

On 18 -19 May 2007, a workshop was organized in Panama City. The 43 participants noted that Panamanian Indigenous Peoples are under pressure from many factors (economic, commercial, educational, demographic and others), which have a negative impact on their forests and their environment.

Most of the participants stressed that the basic causes of forest loss are unsustainable consumer patterns, trade agreements and a lack of recognition of the forest's non-economic values. A further concern is the lack of participation of Indigenous Peoples and local communities in the development of policies and institutions concerned with forest management.

On a positive note, those who grew up in the forest have learnt to adapt themselves to nature. Community forest management has been an exemplary achievement, a conclusion that was further elaborated during the workshop on the underlying causes of forest conservation in 2010 (see below).

Panama's REDD Readiness report identifies six main causes of deforestation: traditional and mechanized agricultural practices; practices of extensive stockbreeding; taking advantage of forests in a disorderly and unsustainable manner; badly planned urban development; inadequate practices for the exploitation of mining resources; and low level of education and environmental culture. The following are listed as underlying deforestation: the style of excessive development, extreme poverty, the culture of the pasture and incorrect appraisal of forest resources.

## Paraguay

Between 22 September and 24 November 2007, eight consultation workshops were organized in different Indigenous communities in the Paraguayan Chaco. The Interethnic workshop took place in Cruce Pioneros on December 10-12. Over 400 people participated in the community workshops, with between 15 and 120 participants in each. The meetings were organized by the Ivy Pora Foundation and Indigenous Peoples.

The eight community workshops show a palette of worries and grievances among Indigenous communities. They see their 'supermarkets' (their forests) being closed for them or destroyed. They feel discriminated against as the forestland goes to farmers who use the forest at will for large profits.

Paraguay's R-PIN report states that: The deforestation drivers in Paraguay are slightly different for each of its two major regions; however, the drivers that cause deforestation are mainly due to cattle ranching and agriculture. Regarding degradation, the main drivers are biomass extraction, slash and burn activities to open areas for agriculture and livestock.

## Philippines

The Asia Pacific Indigenous Youth Network, APIYN, organized a workshop on 18-19 April 2007 in which 120 Indigenous youth and other people participated. Some of the pressing concerns that came out of the workshop were:

- The rapid degradation of forests and other forest resources;
- The lack of political will to enforce forest and other environmental laws;
- The continued destruction of our forests and resources due to bulk and open pit mining, logging, oil palm plantation, dam and tourism's concept of "eco-parks"; and
- The dislocation of Indigenous communities to give way to government projects.

## Papua New Guinea

From 13-17 November a workshop on the underlying causes of deforestation and forest degradation was held in Kiunga, Western Province.

Presentations showed that whole logs destined for export markets are the primary output from Papua New Guinea's forests. Also, Papua New Guinea has very limited processing of natural forest products, which exacerbates the problem of minimal local returns from forestry operations. China is the main export destination for its logs, but the West largely drives this demand. From the discussions it became clear that a key concern for landowners was alternative ways to generate funds.

Papua New Guinea's REDD Readiness Plan states that the main drivers of forest loss are logging and subsistence agriculture.

## Tajikistan

Noosfera organized a workshop 22-23 October 2008 in Dushanbe which 77 participants attended. The workshop and related case studies allowed a unique opportunity for all forest stakeholders to discuss and cooperate. Agreements on future cooperation were made and recommendations for policymakers developed.

## Togo

In June 2009, Jeunes Volontaires pour l'Environnement organized a workshop with over 85 participants. The workshop was a big success, with participants from all levels of society and even from neighboring countries. Recommendations were made to set up a more open, inclusive, transparent and multi-stakeholder committee on forests.

## Uganda

In November 2009, Climate and Development Initiatives organized a workshop on the underlying causes of deforestation and forest degradation in Uganda. More than 20 women and men representing NGOs, Indigenous Peoples and research institutions participated in the meeting, which elaborated, amongst others, on the links between forests and climate change and the impacts of carbon offset projects.

## Ukraine

The Green Cross Society held a workshop in Kosiv from 20-22 September 2009 in which 45 people participated. Participants concluded that mountain-specific research was needed to target the underlying causes of forest loss and degradation, namely: imperfect market reforms in forestry (state monopoly on forestland and on timber harvesting); the dominance of administrative regulatory instruments in governance; short-term economic considerations in forest management; a shortage of financial investment in forestry; a lack of environmental awareness among local people; and lack of public involvement in decision making.

## Workshops on Underlying Causes of Forest Conservation and Restoration, 2010

### Brazil

Between February and July 2010, NAT-Friends of the Earth Brazil conducted a series of workshops on REDD, Indigenous rights, biodiversity and community-driven forest conservation and restoration.

From the testimonies collected during the workshops, the most emphatically mentioned motive to restore forests is undoubtedly to secure water supply.

Although the importance of forests for biodiversity, food collection, hunting and extractive purposes was highlighted, the role of forest in the water cycle and to guarantee constant water supply was mentioned as the key element to unite actors for a restoration initiative, even among groups with different interests in the territory. Among the surveyed projects and initiatives, watershed protection and recovery of riparian forest have appeared as the key constant element, capable of engaging traditional communities and Indigenous Peoples, as well as family farmers and agribusiness, and local and state governments. In the same way, recognition of the impact of tree plantations on water supply has been an important element in uniting actors against the expansion of tree plantations, even for urban populations not directly affected by the other impacts of plantations such as land concentration, loss of biodiversity, hard labor conditions, etc.

### Colombia

In Colombia it was observed that communities are already experiencing severe consequences associated with lack of water resources, and that they attach great importance to the forest for the part it plays in the provision of water, oxygen, and temperature regulation, as well as maintaining biodiversity and providing food resources. These various reasons *"intertwine"* to form the motivation for conservation and restoration.

In most cases, the importance of forests is intrinsic to life itself. *"A forest has its own music: the silence there passed a million sounds,"* people say, considering that the alteration of forest involves simultaneously changing cultures and adaptation strategies. The forest is part of communities' identity and their life plans.

Strategies for reforestation include the development of native tree nurseries, work towards community management of forests, and the recovery of watersheds. In this sense, the construction and development of plans for community life is emerging as a major strategy, in opposition to projects that seek to commodify life.

### India

On 29-30 May 2010, Equations and the National Forum of Forest People and Forest Workers (NFFPFW) organized a workshop on community forest restoration and conservation in Rajabhatkhawa with 48 participants.

The traditional community forest governance of Mundas, the Mundari Khutkatti System in Jharkhand was mentioned, in which the life and livelihoods of the community centered around the forests they have protected and restored for generations. There was no concept of monetary incentives. They believe that Mother Earth owns the forests and they are the custodians, the trustees who protect and conserve forests for posterity. Forests are an integral part of their daily life, culture and identity.

In Orissa around one third of the forests are currently under community control, in defiance of the dictates of the forest department. Community driven forestry has been practiced for the last 100 years in five districts of Orissa. It is now a way of life for them; their culture has been revived and the practice has been sustained because the communities draw huge incentives from the forests in terms of Non-Timber Forest Products and Minor Forest Products .

A forest village community in northern Bengal is the main force behind the regeneration and conservation of forests in north Bengal. Even without wages, they work and sustain their livelihood from the incentives that they were provided with in the forms of cultivable land, inter cropping and Non Timber Forest Products.

### Nepal

On 28-29 May 2010, Kamala Thapa Magar organized a workshop in Gorkha on the causes of forest restoration in Nepal.

The workshop concluded that Community Forestry in Nepal has proven to be an effective tool for restoration. Indigenous people were the first managers of the forest, they have their own knowledge to protect the forest and know how to use it sustainably.

Over the past two decades, community forestry has helped regenerate substantial areas of degraded forests, and has contributed to the improvement of livelihoods and the empowerment of communities and individuals. Today there are around 14,500 community forest user groups in Nepal with nearly 1.6 million household members, meaning that 33% of the population is involved.

## Panama

On 17 -19 May 2010, the Indigenous Environmental Association (AIA) organized a workshop in Panama City on the Conservation and Restoration of Indigenous Territories.

Participants concluded Indigenous values are the main reason for Indigenous communities to conserve their forests. One presenter said: *"Indigenous People have always considered that this land is sacred and that the welfare and health of the planet depend on their health and conservation. This is the vision that has and is still motivating our communities to maintain the conservation and restoration of our territories. We are seeking to recover usurped ancestral lands, and to restore their vitality, to recreate the forests as they once were, before the expansion of Western agriculture and deforestation."*

## Tanzania

The Lawyers' Environmental Action Team (LEAT) organized a workshop on REDD and community driven forest conservation and restoration in July 2010.

A participant from Kongwa said that restoring forests means much more than planting trees. The local community in Kongwa has been motivated to restore their forests because of the services provided by a restored forest landscape including soil stabilization, local climate regulation, food security, biodiversity conservation and that it enhances human well being.

Among many of the motivations that the community has are also: to restore degraded forests in village land, to improve supply of forest products and services to villagers and to enhance environmental and biodiversity conservation at village level. As a means to improve their economic well being, communities tend to invest, where they can get better and quicker returns and within a short term.

According to another participant, the local communities in Kilwa are motivated to restore woodland or forests as they realize the importance of having trees for their livelihood and also to conserve the ecosystem. Kilwa has seen a lot of logging and charcoal making and the local community know that if activities like this are continued, their livelihoods will be at stake. Therefore the community has taken a hands-on approach and is fully participating in Participatory Forest Management in order to protect and conserve their forests.

## Uganda

In May 2010, a workshop was organized by the National Association of Professional Environmentalist (NAPE) in Uganda. During the workshop, several people who live with the forests expressed their view on what the forests mean to them.

Nyakatura Peter from Kihagya, a participant of a forest that belongs to the Bahagya-Bafunjo clan, in western Uganda – Hoima district said:

*"It is from this forest that community and clan members go to appease their spirits and to pray for riches, successful marriages, good jobs, education and money. Communities respect their forest and because of the connotation community members attach to the forest, it has survived encroachers, loggers, and conversion to land for agriculture. It has also become a resource centre, where inter-cultural meetings take place, and research is encouraged. It sets a wonderful precedent for people visiting from other cultures who can see how they might replicate the same good practice elsewhere, and help to conserve standing forests in their respective areas in this era of climate change."*

## 8. List of Country Monitors

Country	Organization	Responsible	E-mail
Bangladesh	Dhaka Institute of Cultural Affairs	Mohammad Azizur Rahman	<a href="mailto:admin@ica-bangladesh.org">admin@ica-bangladesh.org</a>
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Cameroon	ICA Cameroon	Ndameu Benoît Anthony	<a href="mailto:ica_cameroun@yahoo.fr">ica_cameroun@yahoo.fr</a> / <a href="mailto:ndameu@yahoo.fr">ndameu@yahoo.fr</a>
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Colombia 2010	Censat Agua Viva	Tatiana Roa	<a href="mailto:selvas@censat.org">selvas@censat.org</a>
Ecuador	Asociación Indígena de Limoncocha	Johnson Hugo Cerda Shiguango	<a href="mailto:johnson.cerda@gmail.com">johnson.cerda@gmail.com</a>
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India	Kalpavriksh	Vasundhara, Milindwani	
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Netherlands	Corporate Europe Observatory (CEO)	Nina Holland	<a href="mailto:nina@corporateeurope.org">nina@corporateeurope.org</a>
Panama	Fundación para la Promoción del Conocimiento Indígena	Marcial Arias Garcia	<a href="mailto:ariasmarcial@gmail.com">ariasmarcial@gmail.com</a>
Panama 2010	Indigenous Environmental Association (AIA) of Panama	Marcial Arias Garcia	<a href="mailto:ariasmarcial@gmail.com">ariasmarcial@gmail.com</a>
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