

Best REDD Scenario

Reducing Climate Change in Alliance With Swidden Communities & Indigenous Peoples

Standing tropical forests are believed to absorb 20% of the carbon dioxide released by burning fossil fuels. On the negative side, tropical deforestation and forest degradation annually contribute 18-20% of carbon released. To slow global climate change, enlightened forest management must play an essential, two-pronged role -- keep and expand forests to absorb CO₂ from other sources and minimize deforestation to reduce the carbon released when forests are converted to permanent agricultural uses.

Alliances of communities and their organizations in collaboration with governments and/or REDD investors offer an urgent opportunity for controlling the largest sources of carbon release from tropical deforestation. This REDD scenario opens a new path that entails recognizing and respecting the positive values of swidden and swiddening communities unappreciated in the past. When this path is not taken, REDD can threaten the forest as well as the livelihoods, food security, and rights of millions of forest-dependent peoples and communities.

What is REDD?

REDD (**Reducing Emissions from Deforestation and Degradation**) relies on financial incentives to reduce the emission of greenhouse gases from deforestation and forest degradation. While initially not included in the land use, land-use change and forestry (LULUCF) sector of the UNFCCC Clean Development Mechanism (CDM), REDD will likely be incorporated into any successor to the Kyoto Protocol. REDD is expected to use funding from developed countries to reduce deforestation in tropical countries in coordination with governments.

REDD agreements with national governments to reduce deforestation and degradation will affect human populations associated with three scenarios (see below), the current impacts of which can be roughly estimated from their relative densities and areal extent. The estimates for each scenario's contribution to annual global carbon release are based on expert opinion from recent field and remote imagery reviews.

What is swidden?

Swidden is a sophisticated system of forest resource management that produces agricultural products and nontimber products from temporarily clearing a forested area and then allowing the area to reforest by natural regeneration, until the swiddener returns to clear the same areas for farming again after 3-50 years. Swidden clearing (which often, but not always, includes burning) mimics natural forest dynamics of treefall gaps and takes advantage of the successional regeneration that renews the forest cover and maintains ecosystem services. Individual swiddens are rarely larger than one hectare, but often are clustered within a forest in accord with topographical and other factors, leaving large areas of the forest intact, often protected from clearing under local customary rules.

The fallows are usually managed so that regrowing forest closes from the perimeter toward a more intensively cultivated, agroforestry core area, which produces a variety of food and other forest products before the forest canopy closes completely. In the Amazon Basin, for example, over 200 species of local fruits are found in this agroforestry stage of the swidden cycle, adapted over millennia during which the Amazon forests were managed prior to the arrival of Europeans.

Management of the overall spatial mosaic of the fallows and forests creates a healthy, resilient forest ecosystem over very large areas. Swidders depend on their forests for hunting game as well as for collecting foods, medicines, craft items, marketable products, and construction materials. As swidders move across their territories, they adapt their livelihood strategies to their environment. Indigenous swidders generally maintain their populations at low densities, particularly as many youth migrate to urban areas. Many swidders are also reported to use traditional, plant-derived birth controls. Medicinals that can control fertility, in fact many are abortifacients.

Who are swidders?

Swidders are peoples whose cultural identities depend on the forest and their uses of it. Credible

estimates of the number of swiddening families run from below 10 million to over 100 million. In part this lack of solid information on their numbers is a result of the blurry line between "forest-dependent people" and those who practice or historically practiced extensive swidden. Long fallow swidden families live in the large forest tracts visible in aerial and satellite imagery. In the vast Amazon Basin and Gran Chaco forests of South America, the estimated number of families using swidden as part of a sustainable forest maintenance system runs below one million. In Latin America, indigenous swiddeners have raised their claims to territorial rights over these lands and their resources. Such swiddeners have often been either in conflict or collaboration with those managing protected areas drawn over their lands or in reserves for uncontacted peoples that offer some protection from outsiders. The vast extent of indigenous territories and protected areas occupied by swiddeners in Amazonia and northern Gran Chaco illustrates the size of the opportunity in that region. In other regions of the world, the rights of swiddeners have not received the same level of policy attention.

REDD Scenarios

Scenario One. Conversion from forest to other land use: Over 15% of the carbon released annually at a global level (i.e., over 75% of carbon released from forests) can be estimated to have its source from logging, slashing and/or chaining, and burning for conversion of tropical forests to cattle, soy, palm oil, infrastructure, and other commercial uses. These activities are the major threat to the remaining great forests of South America, West and Central Africa, South Pacific and Southeast Asia. The forests being converted to commercial use are home to communities, especially those using extensive swidden agriculture, as well as the smaller community forest reserves in areas where large tracts have already been deforested or severely degraded. An alliance with swiddeners in Scenarios Two and Three would enable swiddeners in alliance with government to protect forests from industrial conversion, and thereby contribute to lessening of the 15% of global carbon mentioned above. In this scenario, the challenge for governments and REDD is to achieve accountable, new mechanisms for stopping deforestation that has resulted directly or indirectly -- from government incentives and investments in industrial plantations for food and biofuels, and new regional infrastructure that opens remote areas to deforestation and conversion (e.g., IIRSA, the Initiative for the Integration of Regional Infrastructure, which coordinated regional infrastructure development in the Amazon and Gran Chaco of South America, and ongoing resettlement schemes throughout Indonesia's and other southeast Asian forests).

Scenario Two. Short fallow swidden farm plots: Less than 2% of carbon released (i.e., 10% of the carbon released by forest degradation and conversion) is estimated to come from periodically burning the small, short-fallow (3-5 years) farm plots that cycle between natural regeneration of forest and cropped land typical of Mexico, Central America, parts of Africa, and parts of Asia. This land use also often emerges on the margins of converted forest areas, arising as a result of human displacement and forest loss created by Scenario One. Alternatively it may arise among permanent forest settlements when swiddeners adapt to alternative income/subsistence sources within the forest environment (e.g., fishing, marketable nontimber forest products, labor opportunities). Short fallow swidden plots are often an integral part of larger land use patterns that include community managed forest areas covering millions of hectares when aggregated at the global level. REDD support for reforestation in these fallows risks impoverishing these families, who number in the hundreds of millions worldwide, by eliminating their access to cropland and the multiple products such as firewood, foods, and medicines produced in fallows. Paradoxically, reforestation also risks destroying community forest reserves which sequester more carbon in the aggregate and provide other essential ecosystem services.

Scenario Three. Long fallow swidden: Less than 1% of carbon is probably released from indigenous swiddens typical in the extensive tracts of natural forests of Amazon, Gran Chaco, West & Central Africa, South Pacific, and remote parts of Asia (particularly Eastern Himalayas and New Guinea)---and both swidden communities and tropical forests have together thrived over the millenia. Approximately 5% of such swiddeners' vast forests is incorporated into what can be termed a 'long fallow swidden cycle' (10-50 years). These forests and their swiddeners are threatened by Scenario One conversion of these forests to other land uses.

Where are the opportunities for REDD support to swiddeners?

Opportunities to stabilize forests and carbon equilibrium are greatest in the vast forests of South America,

where population is sparse and 40% of absorption of carbon from fossil fuels is believed to occur (an estimated forest-based mitigation potential of 21MtCO₂ per year). In Southeast Asia, there are many pockets of opportunity where swidden systems have not been displaced by transmigration programs, large-scale logging concessions, plantations and/or armed conflicts. In African forests, armed conflicts have pushed migrants into forests to create similarly mixed situations where appropriate REDD agreements with swiddeners offer good chances for reducing conflicts while conserving forests.

In Latin America, with the highest rate of forest conversion in the world and the largest remaining forests, effective climate stabilization collaboration opportunities with swiddeners will disappear if not taken up quickly in places where swiddeners are interested in this option. The situation is similar in the South Pacific, as forest conversion proceeds rapidly. In Africa, Asia and Central America, opportunities for collaboration with swiddeners in situations that could make significant contribution to reducing global warming will fade quickly if collective forest rights are not recognized. REDD agreements can be integrated into the ongoing efforts in community-based forest management, land use planning, and the other alternatives available to the millions of families who depend on forests in regions where community and indigenous rights are less well-recognized and forests are smaller.

What are the challenges and threats?

REDD, as it is currently being launched, seriously threatens vulnerable rural people who live in and are dependent on forests -- communities with customary rights and indigenous peoples whose identities, food security and wellbeing are linked inextricably with their forests. REDD, if improperly implemented, can threaten these rights and will impoverish millions. Such rights need to be incorporated into REDD programs.

There are at least three substantive challenges to be overcome when taking up REDD mitigation opportunities with swiddeners: (1) lack of outside connections to locally-accountable institutions representing swiddeners, (2) demands from nongovernmental organizations eager to manage the funds as intermediaries, and (3) governmental reticence to change course to support swiddeners and natural forest protection. Governments have long supported incentives to convert forest into large scale agricultural production, have been slow to recognize customary or formal tenurial rights of swiddeners, and/or have not credibly demonstrated their commitment to protect forests.

The Anchorage Declaration from the Global Summit of Indigenous Peoples on Climate Change states, "All initiatives under Reducing Emissions from Deforestation and Degradation (REDD) must secure the recognition and implementation of the human rights of Indigenous Peoples, including security of land tenure, ownership, recognition of land title according to traditional ways, uses and customary laws and the multiple benefits of forests for climate, ecosystems, and Peoples before taking any action."

There is an economic challenge which can also be offset by working with swiddeners. Research suggests that US \$3 - \$30 per ton must be paid to match opportunity costs of not converting the forest. In addition, governments and local organizations will need funding to monitor and defend the forests. This could require substantially higher payments than the actual amounts currently being contemplated, around \$1.50 per ton, which, with an average of 100 T per hectare, creates an income of only \$150 per hectare. This is a substantial cash income for swiddeners who complement their subsistence with products harvested directly from the forest, but this level of income will not match the short-term income gain expected by the urban-based social class from converting a forest to industrial soy or oil palm production.

How could REDD paradoxically threaten forests?

By ignoring the above-mentioned challenges and threats to the effectiveness of REDD investment, REDD investors could waste a critical opportunity to ensure that tropical forests will continue to stabilize global climate. Pressure to open funding pipelines could force REDD programs to quickly dump funds on those who step forward to request it first. If implemented badly, REDD would put at risk some of the world's most vulnerable people, forests and, ultimately, economies all over the world.

What will happen if governments fail to forge alliances with swiddeners?

If REDD alliances are not made with swidden communities, at current rates of increasing deforestation and degradation, by 2020, remaining tropical forests will be converted or seriously degraded, and no longer be available to absorb 20% of carbon emissions from burning fossil fuels. The destruction of the ways of life of the indigenous peoples whose cultures are intimately connected with swiddens in tropical forests will be a tragic collateral casualty.

How can REDD engage with Scenario Two communities?

Investments in Scenario Two could offer carbon emissions reductions if used where landuse assessments indicate stable community forest management (CFM) or where it can be fostered through effective programs and support. These efforts could aggregate smaller community forests (on the order of 25-5000 hectares each) that occur in significant patches across a landscape or watershed. These patches are often the places where community-based forest management is carried out by agricultural communities and individuals who also depend on forests for a significant part of their livelihoods.

What existing policies can guide alliances among REDD investors, governments and communities?

As most swiddeners self-identify as indigenous, the United Nations Declaration on the Rights of Indigenous Peoples (**UNDRIP**) offers an international consensus on basic guidance. At a minimum, Prior and Informed Consent by communities with customary rights and/or dependent on forests should be required as a precondition for funding REDD agreements made with national governments.

Model national policies are in place in some countries, e.g., Mexico and Nepal, which recognize community rights over forest as the basis for forest management. Over the past several decades, a wealth of community forest management systems has been documented and/or supported around the world, which can guide design and implementation of effective REDD programs with Scenario Two swiddeners.

What new REDD guidance is needed, and what key policy reforms would be supportive?

First, in addition to incorporating swidener collaboration, REDD program guidance should recognize IIRSA and other grand regional development plans as key drivers of deforestation and increased carbon release (Scenario One). If this is not done, governments' virtuous efforts to slow climate change through REDD will fail.

Second, national policy reforms will be needed to reverse existing policies and regulations that unduly restrict forest dependent communities' customary cultural and tenurial rights in order for them to assume their recognized role as forest stewards. Incentives for national tenure reforms could encourage this necessary condition for REDD to orchestrate a successful return to global carbon equilibrium.

Third, in addition to considering REDD and ecological services payments to swiddeners, national governments will need to assume a serious partnership to defend and protect the swiddeners' forest areas currently threatened by conversion from logging, infrastructure developments, and financial incentives promoting agricultural expansion into the forests.

Finally, a global monitoring program for sharing lessons learned at national levels will be essential to gain time and build momentum to reach successful partnerships with swiddeners recognized as global forest stewards working to avert global climate change disasters.

For more information:

www.cifor.cgiar.org , www.iucn.org , and www.rightsandresources.org

The **United Nations Framework Convention on Climate Change (UNFCCC)** is an international environmental treaty (1992) aimed at stabilizing greenhouse gas concentrations in the atmosphere. COP 15 will be held in Copenhagen 7-18 December 2009. The goal for COP15 United Nations Climate Change Conference is to establish a global climate agreement for the period from 2012 when the first commitment period under the Kyoto Protocol expires. REDD is on a fast-track to be incorporated into 2012+.

ACKNOWLEDGEMENTS. The author, Dr. Janis B. Alcorn, acknowledges partial support from CIFOR. CIFOR, however, is not responsible for the contents of this draft written in June 2009, which is being circulated for comments prior to Copenhagen meetings in December 2009. Dr. Alcorn is a botanist and anthropologist, who has extensively studied swidden systems for over 30 years while working in sustainable conservation and development around the world. She is currently co-chair of the Governance, Equity and Rights group within the IUCN Commission on Economic, Environmental and Social Policy (CEESP), and is a Fellow (Biology) of the American Association for the Advancement of Science (AAAS).