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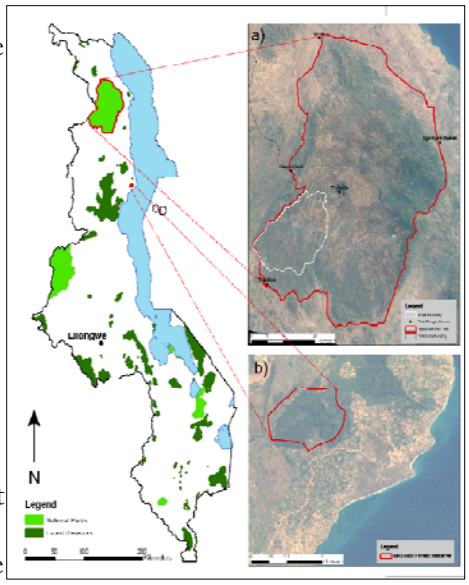
REDD CREDITS BOOST COMMUNITY PARTNERSHIPS FOR BIODIVERSITY CONSERVATION IN MALAWI

In tiny Malawi, two rural community groups are taking giant leaps toward conservation. These two groups, made up of 21 villages, are the first in the country to be successfully certified and registered, enabling them to sell forest carbon in the global voluntary markets. The two groups now have an estimated **1,510,729 tCO_2e** or tradable emissions reductions credits available for sale over 10 years.



Inspired by the promise of improved economic wellbeing from sequestering carbon, communities from around the *Mkuwazi Forest Reserve* in Nkhata Bay and Thazima, near the *Nyika National Park* in Rumphi have banded together in an effort to espouse better forest management practices and stewardship with support from **USAID's COMPASS II project**[1]. These two community groups are actively implementing their *Plan Vivos* (community formulated participatory forest management plans) to stall the march of deforestation and forest degradation. These initiatives in *Mkuwazi Forest Reserve* and the *Nyika National Park* will not only protect the carbon sinks, but also contribute to safeguarding the ecosystems and biodiversity within.

Participation in a carbon sequestration project is a bold and challenging step for rural communities since their dependence on forests for fuelwood, charcoal production, and livelihood sustenance is a daily reality given the absence of affordable alternatives. But their commitment to veer away from uncontrolled subsistence-level extraction and move toward a more sustainable, "asset-management" of the Reserve and Park is real and strong. Selling carbon credits on its own provides inadequate incentives, particularly in a highly populous country like Malawi, to completely prevent the persistent acts of destruction rampant across Malawi's Forest Reserves and Parks. However, it does offer the opportunity to add value to other livelihood options currently being pursued by community members. The possibility of a conservation premium makes economically productive activities such as beekeeping, ecotourism, wild mushroom harvesting, among others, more financially attractive. Conservation premiums funded through carbon credit sales are more likely to encourage innovative forest conservation and biodiversity protection because they help increase the benefits generated from conservation efforts to sufficient levels to make it more meaningful. The monetary benefits from carbon finance, whether shared directly with participating households and/or through local development projects (such as schools, clinics, bridges, tree seedling nurseries etc) that benefit the community at large, are encouraging behavioral change. Communities are now eager to collaborate in conservation strategies. Both the Mkuwazi and Thazima communities have now forged formal partnerships with the Department of Forestry and the Department of National Parks and Wildlife to jointly co-manage the two pilot sites, which are Government owned protected areas.

This public-private partnership between government and community has been formalized through legally binding *Resource Use Agreements* and *Co-management Plans*. These "agreements" bestow on the communities the authority needed to meet the shared responsibility of protecting resources from which they benefit. For the communities, the formalization of these agreements translates into changing attitudes and embracing conservation practices such as stopping uncontrolled deforestation, charcoal burning, agricultural encroachment, and general overexploitation of forests, which are perceived to be free for all.

Already, the communities are taking action and implementing sustainable practices using the *Plan Vivo System*, a community-based methodology pioneered by the UK-based ***Plan Vivo Foundation***. The *Plan Vivo System*

protocol applied by the Mkuwazi and Thazima communities enables them to access payments for carbon sequestration through the protection and restoration of standing forests within the Park and Reserve.

To ensure that these carbon benefits remain intact and all risks to permanence are managed properly, the two community groups are guided and assisted by a locally based project coordinator, the ***Malawi Environmental Endowment Trust (MEET).*** MEET's role in the Plan Vivo System framework is that of an evaluator, verifying management and monitoring practices, assessing leakages, ensuring governance/revenue sharing plans are being adhered to, and providing training and technical guidance on adaptation and mitigation strategies with the support of local technical service providers such as the ***Forest Research Institute of Malawi (FRIM)*** and the Chancellor College based ***Leadership for Environment and Development*** **(LEAD).** As the local monitor and project coordinator, MEET serves as the interface (on behalf of the communities) between the buyers of carbon credits and Plan Vivo Foundation, and reports directly and annually on the effectiveness of community-based conservation activities and their impact on the state of forest cover and carbon stocks.

A technical team inventoried the volume of forest carbon stock in Mkuwazi Forest Reserve (1,767 Ha) and the Thazima portion of the Nyika National Park (35,910 Ha) in late 2008. A verification team evaluated the data and set a baseline in early 2009. The team surveyed a total of 203 plots and measured a total of 3,733 trees and 908 pieces of woody debris. The forest cover in Mkuwazi is mostly miombo woodland (35%) and evergreen forests (34%), while the Thazima part of Nyika National Park is largely open grassland (58%) with 35% of cover with miombo woodland; the rest are evergreen forest and savannah (Berry et al., COMPASS II/USAID, Nov. 2008). However, with Malawi's deforestation tendencies, these forests may not be sustained for long. Malawi's deforestation rate ranges from 0.9% to 2.8% annually. In terms of total forest cover, various sources report that Malawi lost roughly 33,000 ha per year between 2000 and 2005, equivalent to 0.9% rate annually. The deforestation rate of the nation's primary forests is even more severe. If left unchecked, the county's forests could be degraded and deforested by 2040. The table below summarizes the carbon stocks, possible emissions reductions, and potential (ex-post & ex-ante) benefits for the two pilot sites. The emissions reductions arise due to avoided deforestation and degradation of standing forests motivated by the conservation activities and funded by sale of REDD credits promoted in the two sites.

	Mkuwazi	Thazima
Carbon stock of forested land (tC)[a]	188,195	875,061
Carbon stock of deforested land (tC)[b]	63,939	427,589
Potential carbon benefits of forest conservation (tC)[c]	99,404	357,977
Tradeable emissions reductions credits (tCO_2e)[d]	328,331	1,182,398
Annual ex-post payments for emissions reductions (USD)[e]	$39,400	$141,888
Annual ex-ante payments for emissions reductions (USD)[f]	$197,000	$709,438

[a] Lower 95% confidence limit of estimated carbon stock

[b] Assuming a carbon stock of deforested land equal to the upper 95% confidence limit of customary land in Thazima (18.46 tC), and a loss of 75% of forest area as even in the most severely threatened forest areas 100% deforestation is unlikely to occur

[c] Assuming that project activities prevent 80% of deforestation

[d] After converting tC to tonnes of carbon dioxide equivalent (tCO_2e), and removing 10% of credits as a risk buffer to insure against the permanence of emissions reductions

[e] Assuming annual payments over a 50 year period at a carbon price of $6 per tCO_2e

[f] Assuming annual payments over a 10 year period at a carbon price of $6 per tCO_2e

Source: COMPASS II Technical Report; November 2008

The stock estimates presented in the table are adjusted for possible leakage and also allows for a reasonable buffer stock. It further takes a conservative interpretation of available information to estimate the pilot sites' Voluntary Emissions Reductions (VER) potential. At present, several efforts are ongoing to conduct pilot sales, with most interest focusing on purchase emanating from the UK's voluntary markets. DAI, in collaboration with its UK partners as well as MEET, are continuing to support the sale of carbon credits now available from Mkuwazi and Thazima. By expanding income to participating villages through sustainable utilization of forest products, we can help reverse the trend of degradation, preserve biodiversity, maintain important watersheds and provide opportunities for livelihood in these two model districts of Malawi.

[1] COMPASS II/USAID project was implemented by U.S. based *Development Alternatives, Inc.* (DAI) from April 2004-May 31, 2009. Author: Ms. Bagie Sherchand, served as Chief of Party of COMPASS II; At present, she is Sr. Technical Staff at DAI.