Making REDD work for communities and forest conservation in Tanzania: preliminary results and lessons learned from a REDD pilot project in the Eastern Arc Mountains and Coastal Forests.

REDD in Tanzania

Deforestation, forest degradation and land use change are the second largest source of carbon dioxide emissions into the atmosphere contributing about 18% of total global emissions.

Tanzania is actively engaged in Reducing Emissions of greenhouse gases from Deforestation and forest Degradation (REDD). Nine pilot projects are underway, a draft national strategy has been published and an interdisciplinary research programme has been launched.

The annual deforestation rate for Tanzania is estimated to be 410,000 ha per year, approximately 1 %. Major deforestation and forest degradation drivers in Tanzania include:

- expansion of agricultural land for subsistence and commercial agriculture;
- charcoal production;
- uncontrolled fires;
- logging.

Tanzania has been at the forefront of advancing the policies and practices of participatory forest management (PFM) whereby control and management of forests is devolved from central government to local level, community institutions. Recent studies have pointed to the fact that while forest condition appears to be improving under community management systems, participating communities have been less successful in capturing economic benefits.

In order for participatory forest management to be sustainable, communities need to receive more direct benefits. REDD financing offers a long-term revenue stream that could cover some or all of the opportunity costs and the local level forest management costs. The piloting projects underway will contribute to learning how (and whether) this can be achieved.

Piloting a pro-poor model of REDD

The Tanzania Forest Conservation Group and the Tanzanian Community Forest Network are implementing a 5 year REDD pilot project 'Making REDD work for communities and forest conservation in Tanzania'. The project was launched in September 2009.

Project Goal

To reduce greenhouse gas emissions from deforestation and forest degradation in Tanzania in ways that provide direct and equitable incentives to rural communities to conserve and manage forests sustainably.

Project Purpose

To demonstrate, at local, national and international levels, a pro-poor approach to reducing deforestation and forest degradation by generating equitable financial incentives from the global carbon market for communities that are sustainably managing or conserving Tanzanian forests at a sub-national level.

Project Outputs

The outputs of the proposed project are summarised below.

Output 1: *Replicable, equitable and cost-effective models developed and tested at the group or community level for reducing emissions from deforestation and forest degradation (REDD) on village and government forest land in ways that maximize benefits to communities, forests and the nation.*

Output 2: *Replicable, equitable and cost-effective models developed that are designed to address the drivers of deforestation and forest degradation and to reduce leakage across project sites in ways that build capacity of communities and other stakeholders and provide additional climate change benefits.*

Output 3: *Monitoring, evaluation and documentation processes supported that assess the overall impact of the project at local and national levels and communication of the findings undertaken.*

Output 4: *Advocacy process supported at the national and international levels that promote equitable and effective REDD benefit sharing mechanisms in particular with regard to forest managers at the community level.*

For more information about the project, please visit. http://www.tfcg.org/makingReddWork.html

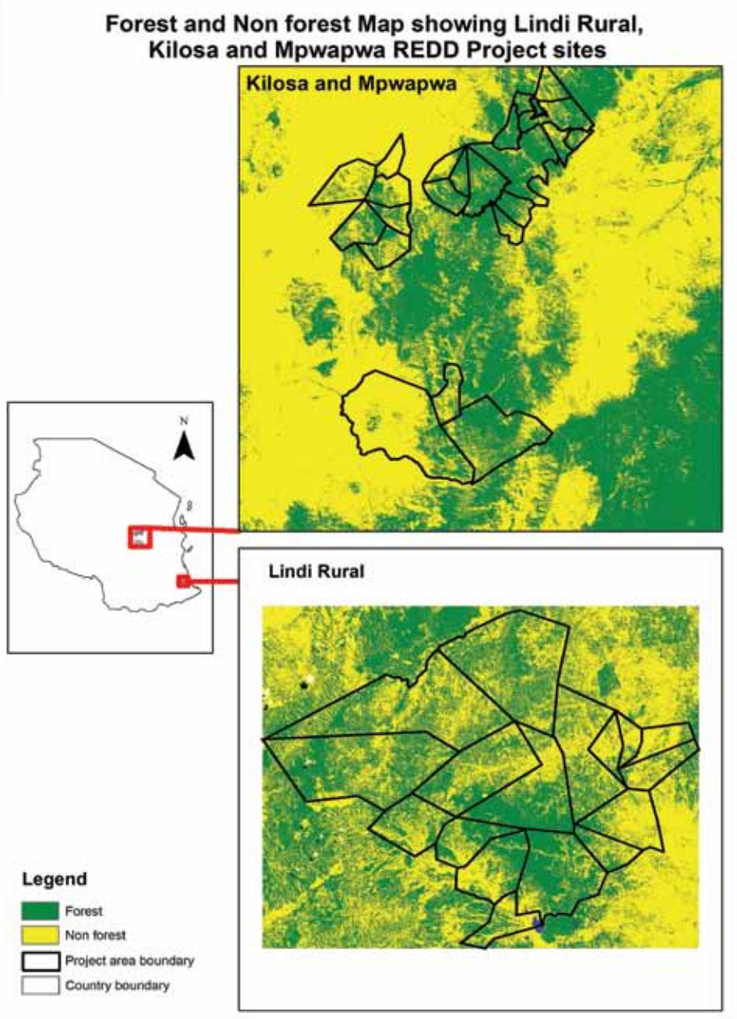
REDD in the Eastern Arc Mountains and Coastal Forests

The forests of Eastern Tanzania are part of the contiguous Eastern Afromontane and Eastern African Coastal Forest biodiversity hotspots. The forests contain approximately 1500 endemic plant and 150 endemic vertebrate species.

The project is working with 22 villages in the Eastern Arc Mountains and 15 villages in the Coastal Forests of Tanzania covering a total of 373,200 ha. The forests included in the project have populations of at least 9 species classified as threatened by IUCN and 46 species endemic to the Eastern Arc Mountains and Coastal forests including the Rubeho Partridge and Nike's squeaker.

Achievements of the project during the first 18 months

Two project sites were identified that have a high potential for REDD to work. One site is in the Coastal Forests and one site is in the Eastern Arc Mountains. A community-oriented REDD model has been developed. Following an intensive process to ensure the free, prior and informed consent of the communities, the model is now being piloted. During the first 18 months this involved: establishment of four village forest reserves covering 6501 ha; development of draft village land use plans in six villages; analysis of historical deforestation; collection of baseline carbon monitoring data; and market analysis. These activities are now being scaled up across the 37 villages.



Preliminary lessons learned

In the Tanzanian context, REDD could offer a win-win solution, bringing benefits to communities and reducing deforestation. REDD revenues could cover the opportunity costs and the forest management costs for communities provided that revenues can be directly channelled to the communities and can be equitably distributed within the communities. This requires a strong focus on governance issues and requires a commitment from the government to allow communities to directly access REDD revenues generated from reduced emissions on village land.

Forest degradation is widespread in both landscape, as it is across much of Africa. This is more difficult to measure. More research is needed to assess the impact of forest degradation on forest ecology and carbon storage. Robust methods are needed to assess changes in rates of degradation.

Safeguards that protect community rights and ecosystem services including biodiversity need to be integrated into national and international policies and need to be enforcedable in order to reduce the potential risks associated with REDD including land grabbing and replacement of natural forest with plantations.

Tanzania's Village Land Act gives communities direct control of their land and the Forest Act gives communities the right to control forests on their land. Both of these important pieces of legislation enhance the possibility of REDD succeeding in Tanzania, provided that they are properly implemented.

For REDD to provide an effective incentive, it needs to be performance-based rather than effort-based.

Shifting cultivation is one of the major drivers of deforestation in Tanzania. A commitment to improving small-holder agriculture in ways that are compatible with REDD is critical. For this to be achieved there is a need for the agricultural sector to be more closely involved in REDD.

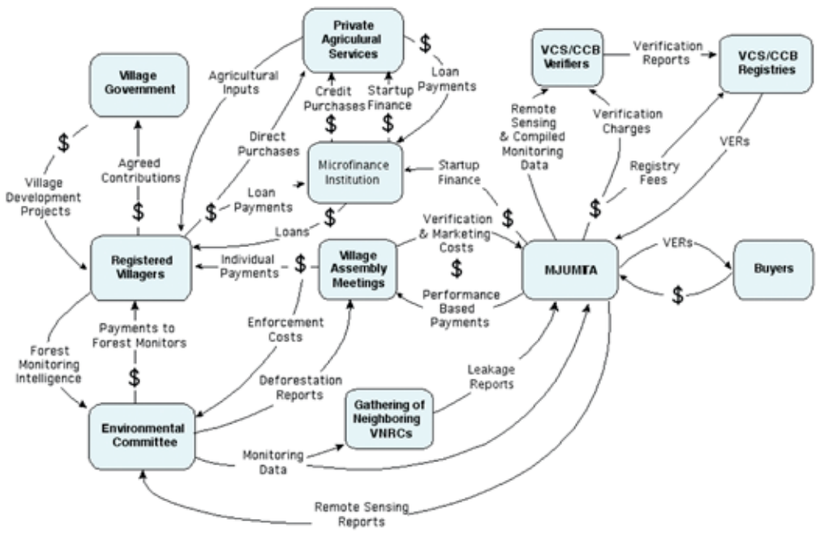
Arhtroleptis nikeae is one of the endangered species found in the Kilosa / Mpwapwa project landscape

How will REDD funds flow to communities in such a way as to cause a measurable reduction in emissions of greenhouse gases?

MJUMITA REDD Model

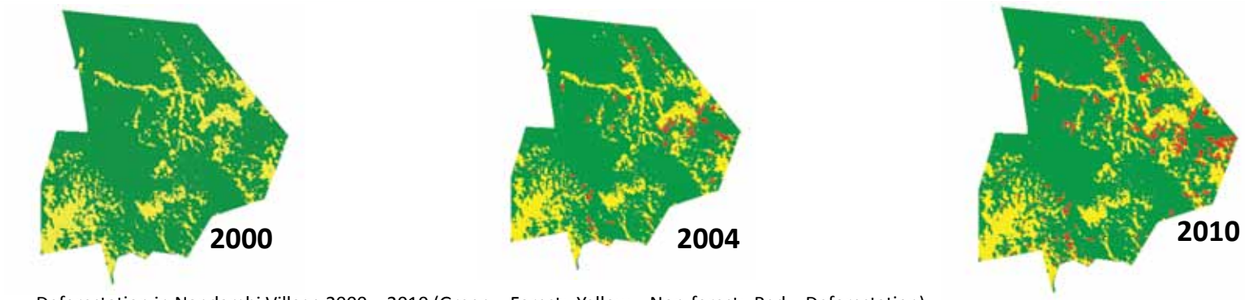
The TFCG and MJUMITA project has been developing a model of REDD based on direct payments to communities commensurate with reductions in emissions of greenhouse gases relative to a historical baseline. This model involves the following steps:

- Villages make a commitment (to themselves) to reduce deforestation and undertake community based forest management , village land use planning and improved agriculture.
- Villages protect the forests on their land and take steps to address deforestation drivers such as shifting agriculture.
- Emission reductions are calculated and are sold, initially on the voluntary carbon market. Payments are performance-based commensurate with measurable reductions in emissions relative to a historical baseline and are calculated on a village by village basis.
- MJUMITA plays the role of service provider linking communities with REDD finance. MJUMITA will be responsible for remote sensing, contracting third party verification, marketing and payment facilitation.
- Compensation to MJUMITA will be limited to the cost of services provided which will be specified in renewable 5 year contracts between MJUMITA and each village.
- MJUMITA channels payments from the voluntary market (or other sources of REDD finance) to the individual communities.
- Each community must choose their payment system and codify the system in their bylaws.
- Villages pass bylaws to govern the distribution of REDD funds centered around individual (adult) dividends.
- Villages assemblies meet yearly to decide on a proportion of individual dividends to use for forest management activities a specific development projects.



Communities participate throughout the REDD process including ground truthing, carbon monitoring and forest management.

Nandambi Village Example: an example of how REDD could operate in a village in Lindi District.



Deforestation in Nandambi Village 2000 – 2010 (Green = Forest; Yellow = Non-forest; Red = Deforestation)

Small-holder agriculture is one of the major deforestation drivers in both landscapes where the project is working

About Nandambi Village

Located to the south of the Chitoa plateau, the village has:
920 people (230 households)
6670 ha of coastal forest and woodland
2040 ha of agricultural land (mix of fallows and active farms)

Deforestation is primarily related to agricultural expansion due to population growth, low soil fertility, crop pest buildup and weed buildup

Carbon Calculations for Nandambi Village	
Average Carbon Emissions per ha of Deforestation (t/CO_2 eq)	347
Average Area Deforested per year (ha)	40
Potential Average Avoided Emissions per year (t/CO_2 eq)	13,880
Emissions deposited into risk buffer account	2,776
Value of remaining VCS verified emissions reductions ($10.00 per t/$CO_2$ eq)	$111,040

The REDD balance sheet for Nandambi Village

In Nandambi, REDD revenues could be more than double the combined opportunity and direct costs.

Estimated Annual Costs of Community Based Forest Management	
Self Monitoring	$1,068
Village Natural Resources Committee operations	$1,580
Estimated Annual MJUMITA Service Charges	
Remote Sensing	$200
Facilitation and Marketing	$685
Third Party Validation (total is shared with other villages)	
Validation Charges	$320
Carbon Market Costs	
Registry and certification fees	$855
Brokerage fees (may or may not apply depending on buyer and success of MJUMITA marketing)	$7,537
Net income	
Average annual net income	$98,795
10% village levy	$9,879
Amount Available Per household	$430
Opportunity cost across the whole community (US$ 805 / ha x 40 ha)	$32,320

In the background, the forests of the Noto Plateau which are at the centre of the Lindi project site.'

About the Tanzania Forest Conservation Group

The Tanzania Forest Conservation Group is a Tanzanian non-governmental organization with 25 years of experience of forest conservation in Tanzania. TFCG's mission is to conserve and restore the biodiversity of globally important forests in Tanzania for the benefit of the present and future generations of Tanzanians. Through TFCG's five programmes: advocacy, participatory forest management, environmental education, community development and research, TFCG has succeeded in rolling out innovative and high-impact solutions to the challenges facing Tanzania's forests and the people that depend on them **www.tfcg.org** .

Tanzania Forest Conservation Group
Shirika la Kuhifadhi Misitu ya Asili Tanzania

About MJUMITA

MJUMITA is a national network of community groups involved in participatory forest management. The network provides a forum for capacity building, advocacy and communication for these groups. MJUMITA currently has 80 affiliated local area networks, which are made up of Village Natural Resource Committees (VNRC) and Environmental User Groups. MJUMITA's members are present in 23 districts, 420 villages and representing around 500 user groups or VNRCs involved in participatory forest management across Tanzania. MJUMITA has been operational since 2000 and was officially registered as an independent NGO in 2007 **www.mjumita.org**.