

At current rates of deforestation some national forest reserves will have no forest in them by 2017: is enough being invested in forest management to prevent this?

At current rates of deforestation Kazimzumbwi, Pugu and Ruvu South Forest Reserves will be completely deforested by 2014, 2017 and 2035 respectively; whilst other reserves such as Uzungwa Scarp will have lost some of their unique biodiversity values. Our budget analysis highlights that funds are not reaching protected area managers to enable them to do their job and managers are not being held accountable for the condition of the forests that they are managing. Our research also highlights a need for greater transparency and participation in relation to how forestry sector budgets are being planned and invested. We call upon the Tanzania Forest Service and Members of Parliament to invest more in the management of the Nation's forest reserves; to improve the accountability of the Tanzania Forest Service by introducing independent forest monitoring; and to make more effort to address the livelihood needs of those living adjacent to forest reserves.

The privatization of forest resources in some national forest reserves

Managing forest reserves costs money. Money is needed to employ people; to buy equipment; to run vehicles and to carry out daily activities such as conducting patrols, engaging with local communities and marking reserve boundaries. Whilst this point may seem obvious, there has been a history of chronic under-investment in forest management. This has resulted in some forest reserves being treated as open-access resources that are being mined for timber and charcoal production for the private benefit of a few individuals. The long term ecosystem services that these forests provide to society, including water catchment, climate change mitigation, soil protection and biodiversity protection, are being threatened. The public services that

Charcoal transportation from Ruvu South Forest Reserve. Hundreds of charcoal producers have been living in charcoal production camps within Ruvu South Forest Reserve. Inadequate budget has been cited as a reason for the government's failure to protect this valuable reserve.



the forests provide for the benefit of millions of women, men and children are being foregone in favour of the individual values generated from the sale of timber and charcoal.

It is the role of the State to intervene in order to ensure that national Forest Reserves continue to supply the public goods and services that benefit all. However, in the case of some national Forest Reserves, the State is failing in its mandate to protect the public interest and our precious catchment forests and unique biodiversity are being transformed into charcoal or timber for private gain. We argue that more investment needs to reach protected area managers; clearer mechanisms are needed in order to hold those managers accountable for protecting the public goods under their stewardship; and more effort needs to be made to offer alternative livelihoods to those engaged in

the unsustainable exploitation of national forest reserves.

Until mid-2011, national forest reserves were being managed by the Forestry and Beekeeping Division within the Ministry of Natural Resources and Tourism in collaboration with Regional and District Catchment Forest Offices and District Councils. Since mid-2011, responsibility for the management of Central Government Forest Reserves has shifted from the Forestry and Beekeeping Division to the Tanzania Forest Service (TFS). With the launch of TFS and the Tanzania Forest Fund, there are signs of positive change, particularly with regard to investment in the management of the newly established Nature Reserves. TFS's objectives include maintaining stable ecosystems and biodiversity and enhancing good governance. Our research highlights the mismatch between the funds needed and the funds provided under FBD and the implications of that mismatch for forest management. This raises important lessons learned for TFS.

The Forest Justice in Tanzania project has been assessing the condition of six nationally important forests and comparing forest condition with investment in reserve management. In Pugu, Kazimzumbwi, Uzungwa Scarp, Ruvu South, Segoma and Rondo Forest reserves, the team recorded varying rates of timber harvesting, charcoal production and / or hunting. These results were shared with their respective forest managers. The common response to the problems raised was that whilst the managers are aware of the problems, they lack the resources to take any action. This report looks in more detail at the linkages between forest condition and investment in reserve management.

How we assessed levels of investment and forest condition

Budget data were collected from the Ministry of Finance, the Ministry of Natural Resources and Tourism and from regional catchment forest offices. In order to compare investment with forest condition, we also conducted surveys in five national (Central Government) Forest Reserves. Using remote sensing images, the forest in each reserve was spatially classified based on forest condition and forest type. A field survey team then assessed forest condition along 1 km transects

and biodiversity values were assessed using a variety of methods. For some reserves, forest change analysis was also carried out using a time series of remote sensing images. Interviews were conducted with the forest managers and local communities around the respective forest reserves to assess their awareness of the current situation of their forest and to document the actions that they are taking to manage the reserves.

Finding 1: FBD did not receive the budget that it needed contributing to its failure to achieve most of its targets

Budget constraints were one of the biggest challenges that the Forestry and Beekeeping Division faced in relation to fulfilling its mandate to manage Central Government Forest Reserves. For example:

In the financial year 2008/2009 the division planned to implement 16 targets at a cost of TZS 4,728,501,500 from the budget section of the Other Charges (OC) but until the end of fiscal year the division had received only TZS 2,754,998,528 from the treasury and thus implemented only six (6) targets after spending 97.2% of all funds obtained from the treasury (Source: FBD annual budget implementation report, 2008/2009).

In 2010/2011 the division planned to spend TZS 6,001,118,500 from other charges (OC) budget section, but until April 2011 the division had received only Tsh 1,687,496,684 leading to the division's failure to implement a large part of its responsibilities (Source: FBD annual budget implementation report, 2010/2011).

Finding 2: Budget cuts at national level were passed down to protected area managers who received an even lower percentage of the budgets requested

The cuts to the Forestry and Beekeeping Division's budgets at national level also affected the amount of money that reached the regional catchment forest officers. Our analysis of the budget data collected from 4 regional catchment forest reserve offices revealed that, on average the regions received less than 25% of the their annual proposed budget from FBD.

Tables 1- 4: Showing budget requested against the amount received by the Regional Catchment Forest Office from FBD.

Table 1: Tanga

Year	Regional office annual estimates	Funds received up the end of the year	% received against regional estimate
2008/2009	95,594,000	23,975,000	25.08
2009/2010	800,000,000	101,400,000	12.68
2010/2011	790,000,000	59,509,000	7.53

Table 2: Morogoro

Year	Regional office annual estimates	Funds received up the end of the year	% received against regional estimate
2008/2009	Not obtained	14,300,000/=	Not available
2009/2010	712,041,800	36,100,000/=	5.07
2010/2011	1,078,468,000	33,158,800/=	3.07

Table 3: Iringa

Year	Regional office annual estimates	Funds received up the end of the year	% received against regional estimate
2008/2009	104,512,670	29,533,487	28.26
2009/2010	107,364,975	60,576,559	56.42
2010/2011	81,554,598	59,280,000	72.69

Table 4: Coast (Ruvu Fuelwood Pilot Project for Ruvu South and Ruvu North Forest Reserves)

Year	Regional office annual estimates	Funds received up the end of the year	% received against regional estimate
2008/2009	332,010,000	19,000,000	5.72
2009/2010	368,000,000	24,960,000	6.78
2010/2011	368,000,000	35,000,000	9.51

In order to estimate the proportion of annual FBD funds that were directed towards forest reserve management activities, we compared the FBD budget and the sum of the annual budgets for Morogoro and Tanga regional catchment offices for three years. Given that FBD's responsibilities for direct forest management were targeted at catchment forests of national significance in five regions and that Morogoro and Tanga contain over one third of those catchment forests, we would have expected a comparable proportion of the budget to be allocated to forest management in those regions. Instead we found that for the last three years, less than one percent (1%) of the annual FBD budget was used in managing the 266,368 hectares of nationally important forests in Morogoro and Tanga regions as shown in Table 5 below.

Table 5: Funds received in Tanga and Morogoro relative to the total FBD budget

Year	Funds received by Tanga Catchment Office	Funds received by Morogoro Catchment Office	Total funds received in Tanga and Morogoro	Total FBD Approved budget	% of the total FBD budget allocated to Tanga and Morogoro Regions
2008/2009	23,975,000/=	14,300,000/=	38,275,000/=	11,630,204,500/=	0.3
2009/2010	101,400,000/=	36,100,000/=	137,500,000/=	14,753,515,600/=	0.9
2010/2011	59,509,000/=	33,158,800/=	92,667,800/=	16,419,781,100/=	0.6

MNRT's annual activities report for the year 2010/2011 which was submitted to the parliamentary committee for land, natural resources and environment says that 'the biggest challenge faced by the MNRT is inadequate resources including staff and equipment'. That so small a proportion of funds was being allocated to reserve management activities suggests that the problem was also one of prioritization with reserve management not being considered a priority when allocating the limited funds that were received by FBD. This also reflects a weakness in the mechanism by which FBD was being held accountable for the effectiveness of its reserve management. These results highlight important lessons for the Tanzania Forest Service in terms of putting higher priority on reserve management and having in place mechanisms by which TFS can be held accountable for the condition of the reserves under its management.

Budget constraints and its implication for the sustainable management of national Forest Reserves...

As stated in the forest policy of 1998, the main reasons for deforestation are clearing for agriculture, overgrazing, wildfires, charcoal production and over-exploitation of wood products. Our results show that the situation has not changed significantly. Some of the impacts of the chronic under-investment in reserve management that we have recorded are summarized below.

Impact 1: Deforestation in Pugu, Kazimzumbwi and Ruvu South

Less than 20 km from the FBD head office, these three forests are part of Dar es Salaam's greenbelt and offer important ecosystem services for Dar's citizens including clean air, water catchment, soil protection, biodiversity and recreational values. Forest change analysis over two years (2008-2010) shows that, at current rates of deforestation, Kazimzumbwi will be completely deforested by 2014, Pugu by 2017 and Ruvu south by 2035. The reserve managers have faced budget shortfalls of 90 % and measures to monitor their management effectiveness are not in place. With limited budget and limited accountability for forest condition, the reserves have been left as open-access areas in which thousands of charcoal producers and loggers established semi-permanent camps. The producers and transporters are capturing the public goods that these forests provide and are transforming them into private revenue streams causing irreversible damage to the ecosystem services that these forests provided. Over the last 12 months, some action has been taken to reverse this trend including the closure of some charcoal production camps; the establishment of patrol posts; and dialogue with some adjacent communities. Going forwards, a more intensive and sustained effort is still needed in order to ensure the long term survival of these forests.



Illegal loggers are taking advantage of inadequate financial capacity of forest managers to protect their forest to mine national forest resources for their personal benefit

Impact 2: Biodiversity loss in Udzungwa Scarp Forest Reserve (now a Proposed Nature Reserve)

Udzungwa Scarp Forest Reserve is an important catchment area for the Kilombero and Kihansi Rivers. These rivers are critical for hydro-electricity power production and agriculture. The reserve is also critically important for its biodiversity values with populations of four Tanzania-endemic primate species. Our biodiversity and forest disturbance research in Udzungwa Scarp Forest Reserve in Morogoro region has highlighted alarming rates of bushmeat hunting resulting in the collapse of some populations of duikers and primates. On average, about 10 snares were recorded in each 1 km long transect. Guns are also used to hunt primates. Rates of logging are also high in parts of the reserve threatening to degrade the catchment values of the reserve.

Impact 3: Poor relations between communities and some forest managers as a result of limited Government investment in forest management

Some of the local communities living around the six forests where we conducted our research blamed the Forest Officers for not taking action to address illegal activities occurring within the reserves even when communities report illegal incidents. The response from forest managers has been that they lack transport and per diems to follow up on illegal activities. This has eroded community support and trust in reserve management and has contributed to a poor working relationship between communities and forest management in most of the areas that we visited.

For example, communities around Ruvu South Forest Reserve used to participate in joint forest patrols without being paid and without being provided with equipment. However, lack of support from the Government including their refusal to sign the joint management agreements that the communities had prepared, discouraged the communities to such a degree that many withdrew from assisting in the management of the reserve and the communities became hiding places for those involved in the illegal logging. Reserve managers point to their receiving only 5 – 10 % of the budget that they requested. The result is deteriorating relations with the local communities who are critical for the long term sustainability of reserve management.



Water flowing from the Eastern Arc Mountains is vital for villages and towns in much of eastern Tanzania. Allocating sufficient budget for forest management is critical for ensuring clean and reliable water supplies.



In Ruvu South Forest Reserve, the Government's failure to support the joint management agreements that were developed for the reserve has contributed to poor relations with the surrounding communities. This has contributed to the high rate of forest destruction within the reserve

Another example of budget shortages damaging relations between communities and reserve managers is Rondo forest reserve. This reserve is Tanzania's most important coastal forest home to 55 strictly endemic plant species. There are two forest guards employed to patrol 15,000 ha of forest. Communities around this forest worked as casual labors to clear forest boundaries and in the adjacent plantation. However workers have not been paid for over a year. This has frustrated communities and undermines cooperation between the reserve management and the communities and comes at a time when forest clearance for agricultural land is increasing on the edge of the reserve.

Impact 4: Revenue collection targets are not met

Inadequate investment in management has also undermined revenue collection. For example in an MNRT report titled "MTEF - 7.1 Cumulative Quarterly MTEF Target Monitoring Form' of the year 2008/2009. It is stated that:

'Total revenue collected through sustainable utilization of forest products from July to 30 June 2009 was 15,516,406,312.94/=.

The target was to collect 23,673,889,000/= annually, but due to shortage of fund disbursement the target was not met.'

Recommendations for the Tanzania Forest Service

More priority needs to be given to investment in reserve management

Reserve managers need funds in order to fulfill their roles and responsibilities and thereby safeguard the ecosystem services provided by forest reserves. This will also enhance their credibility with other stakeholders including local communities.

Mechanisms are needed to hold reserve managers and TFS accountable for the condition of forest reserves

Monitoring mechanisms such as independent forest monitoring are needed in order for TFS to be held accountable for the condition of the forest reserves under its care. This should involve multiple stakeholders including communities, civil society, local government and the private sector

More transparency and participation in budget decisions

Securing the budget information presented in this report involved multiple meetings with different stakeholders and close follow up. Even with this information it was not possible to identify exactly how much is spent on reserve management. In keeping with Tanzania's move towards more transparent governance, it is important that TFS budgets be made openly available and that there is more involvement of reserve managers in decisions on budget allocation.

More investment is needed in community development, participatory forest management and enhanced governance in adjacent communities.

In order to achieve sustainable solutions to these problems, TFS will need to invest more in providing sustainable livelihoods for women and men living adjacent to the forests and will have to show real commitment to equitable and effective participatory forest management.



Forest Justice in Tanzania (FJT)

Forest Justice in Tanzania (FJT) is a three year project (2011-2013) that aims to promote improved governance and increased accountability in Tanzania's forest sector. The initiative is a partnership between the Community Forest Conservation Network of Tanzania, known as MJUMITA and the Tanzania Forest Conservation Group (TFCG). The project is working through four inter-related strategies, which are:

1. Monitoring forest governance and forest condition;
2. Enforcement promotion;
3. Research, analysis and communication; and
4. Agreeing standards.

The project is financed by DfID through the Accountability in Tanzania programme (AcT).

For more information about the project, read our special edition of the Arc Journal, available at <http://www.tfcg.org/publications.html>

The Tanzania Forest Conservation Group (TFCG)

The Tanzania Forest Conservation Group (TFCG) is a Tanzanian NGO, registered in 1985, which has a mission of conserving and restoring the biodiversity of globally important forests in Tanzania for the benefit of the present and future generations. This is achieved through capacity building, advocacy, research, community development and protected area management, in ways that are sustainable and foster participation, co-operation and partnership.

TFCG has 25 years of experience in working with issues relating to forest conservation in Tanzania. TFCG currently provide direct support in 14 Districts to 160 villages around 180,000 ha of high biodiversity forest. 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. In particular, TFCG has been active in advocating for improved forest management and reduced deforestation throughout this period.

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Mtandao wa Jamii wa Usimamizi wa Misitu Tanzania (MJUMITA)

The Mtandao wa Jamii wa Usimamizi wa Misitu Tanzania (MJUMITA) is a network of community groups involved in participatory forest management in Tanzania. The network provides a forum for capacity building, advocacy and communication for these groups. MJUMITA was initially supported by TFCG starting from 2000 and became an independent NGO in 2007. It was established originally in response to the need for a forum for communities to share experiences with regard to participatory forest management and engage in dialogue with the Forestry and Beekeeping Division on ways to address policy, legal and implementation issues in relation to participatory forest management. MJUMITA currently has 80 affiliated local area networks, which are made up of Village Natural Resource Committees (VNRC) and Environmental User Groups. The local level networks are registered legal entities or are in the process of being registered. MJUMITA's members are present in 23 districts, 450 villages and representing around 500 user groups and VNRCs involved in participatory forest management countrywide. The total number of MJUMITA members is around 6,000 people, but the total number of people living in communities where MJUMITA works is as many as 900,000 people and will continue to expand.

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