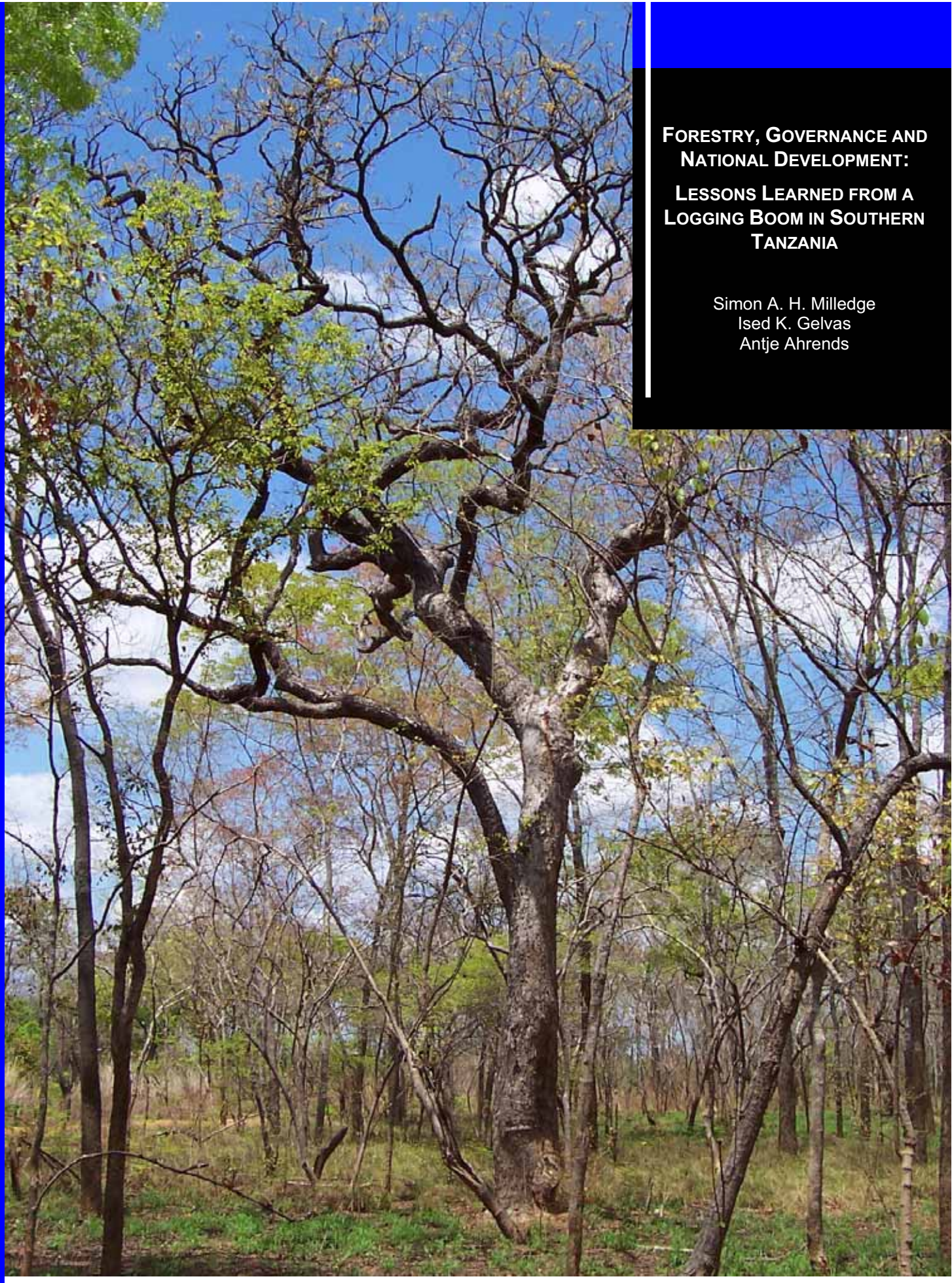

FORESTRY, GOVERNANCE AND NATIONAL DEVELOPMENT:

LESSONS LEARNED FROM A LOGGING BOOM IN SOUTHERN TANZANIA

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http://assets.panda.org/downloads/traffic_tanzania_loggingreport.pdf

TRAFFIC
the wildlife trade monitoring network

United Republic of Tanzania
MINISTRY OF NATURAL RESOURCES AND TOURISM

DPG
Tanzania Development Partners Group

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2007

Credit: Simon Milledge/TRAFFIC

Millettia stuhlmannii logs ready for collection at Mbondo village, Nachingwea

A study authorized by the Ministry of Natural Resources and Tourism,
supported by the Tanzania Development Partners Group,
and conducted by TRAFFIC East/Southern Africa

Note: Most of the information contained within this report was collected before the end of 2005

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[1] The Critical Ecosystem Partnership Fund is a joint initiative of Conservation International, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation.

[2] Presentation given on the 6th December 2005.

[3] Presentation given on the 23rd November 2005.

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2 EXECUTIVE SUMMARY

Governance, forestry and national development are interlinked, but their relationship has not been well documented. This report endeavours to set out the immense value of forest resources to the Tanzanian people. It describes how current policy, as set out in the formal laws and regulations governing the management of these resources, was systematically being manipulated by domestic and foreign private sector interests in concert with senior Tanzanian and foreign government officials. The report continues to portray how, consequently, the forests were being depleted at a rate that meant that they would not be available to contribute significantly to the livelihoods of future generations. In addition, there were massive revenue-collection shortfalls at every level of government and significant, long-lasting negative effects on the environment. The report goes on to propose a series of measures that would help assure that Tanzania's invaluable and irreplaceable forestry resources will be well managed for the benefit of present and future generations.

In terms of national policy, this study of contemporary timber trade has provided a ***revealing example of how governance shortfalls in the forestry sector can ultimately affect the prospects for achieving national economic growth and poverty reduction objectives***. Whilst numerous opportunities and benefits of timber trade have been, and continue to be, realized, this report illustrates how poor forestry governance directly undermines two clusters of the *2005 National Strategy for Growth and Reduction of Poverty (NSGRP):* Growth of the economy and reduction of income poverty; and, Governance and accountability.

It is important to note that ***governance shortfalls are not necessarily an accidental artefact of institutional arrangements or capacity constraints; there is increasing evidence for the more damaging forms of forestry-related corruption*** that selfishly exploit opportunities availed by decentralisation, globalisation and delayed completion of forest sector institutional reforms for the gain of both individuals and organised networks.

Acceptance by policy makers of the need for longer lasting measures is steadily growing, although ***a greater realization of the number of people affected, the financial implications, the consequences for the environment and the geographical scope is perhaps needed to understand fully the magnitude of the problem***. Forests and woodlands cover around 40% of the total land area, yet support the livelihoods of 87% of the poor population who live in rural areas. Some 16% (and up to 60% seasonally) of households from villages located near forests in southern Tanzania benefited from logging and timber trade during 2005. Over 90% of the energy used in the country is wood fuel derived from the forests.

In economic terms, rural communities, traders and the government have lost massive potential revenues to wasteful harvesting and processing, non-collection of royalties and under-valuation of forest products. At village level, through mid-2004, local harvesters have chronically under-valued hardwood logs. Consequently, they have been receiving barely one hundredth of the export price despite the fact that no value-adding had taken place since the logs were obtained. Revenue lost by central and district governments due to the under-collection of royalties reached up to 96% of the total amount of potential revenue due. At central government level, it was tentatively estimated that nationwide losses of revenue to the Forestry and Beekeeping Division amounted nationally up to USD 58 million anually due to the under-collection of natural forest product royalties in the districts. Some District Council budgets would have increased by several times over if all potential timber revenues were actually collected. Substantial revenue losses were also apparent prior to and during shipment. For example, the trade statistics show that China imported ten times more timber products from Tanzania than appear on Tanzania's own export records. This suggests that Tanzania collected only 10% of the revenue due from these exports.

Further, this important social and economic resource has continued to degrade at an alarming rate. Around ten million hectares of forest land were lost between 1970 and 1998. At the harvest rates experienced during 2003 and 2004, and based on official forest inventories, it is apparent that all harvestable Class I and II trees in Rufiji and Kilwa Districts will have been felled within 20 years. The deleterious effects of deforestation on water catchments, hydroelectricity, soil erosion, fire outbreaks and the status of biodiversity are now evident in many parts of the country.

This report does not call for radical measures to stop timber harvesting, trade and exports. On the contrary, it strongly recognises the vital contributions of local and foreign trade and investment to the country, the longer-term, strategic opportunities of emerging global markets, and the clear national importance of priority sectors that may inadvertently influence forests, such as infrastructure. However, ***this report does call for reform in the approaches used to ensure good natural resource governance, including dedicated attention towards forestry governance***. Ongoing financial and technical assistance to the forestry sector will almost certainly be required. Thinking more broadly, the kind of measures recommended for the forestry sector in this report would also probably benefit the management of other natural resources, such as wildlife, fisheries, minerals, oil and gas.

Recognition of the importance of forestry governance

Governance has a ***pivotal role in determining the development outcome*** of forest product trade. This is especially true in less developed countries with a large natural resource base and a policy environment heavily influenced by the forces of

administrative decentralisation, market globalisation, political democratisation, rural empowerment and infrastructure development. In an ideal scenario, good governance at all levels helps ensure forest product trade provides broad-based and equitable benefits in line with national and local development goals, without compromising forest integrity. Unfortunately, in Tanzania, a complex interplay of social, economic and political factors has tilted the ideal balance in an unfavourable direction in recent years.

Despite a well-developed institutional framework for forest management and numerous remedial measures since 2003 (including, at the extreme, national indigenous hardwood harvest and export bans), the forestry sector has continued to be plagued by poorly controlled, irregular and unsustainable activities. Amongst the most serious concerns are ***massive losses in revenue, negative social impacts, forest degradation and weakened governance structures***. In all cases, ***poorer people living in rural areas are disproportionately affected***, despite ongoing decentralisation and a legal framework that promotes broad-based empowerment. Governance shortfalls have been identified by many stakeholders as a ***key limiting factor*** to addressing these concerns.

The current dire situation has attracted serious criticism from many quarters within and outside the Tanzanian government, but it can be overcome. ***Governance and the environment as both disparate and linked concerns are high on the current political and development agenda*** in Tanzania. In particular, the NSGRP includes 'governance and accountability' as one of three outcomes-based clusters, whilst environmental issues appear throughout the strategy. Further, the fourth phase government, inaugurated in late 2005, appears to have placed stronger emphasis on governance and environmental issues. As a further indication of commitment, ***this independent study was itself approved by the Minister of Natural Resources and Tourism***, the Terms of Reference drafted by the Forest and Beekeeping Division, and were subsequently supported by development partners working within the forestry sector.

Study area and approaches

This study focussed on southern (mainland) Tanzania, one of the poorest parts of the country where ***rural livelihoods are heavily dependent*** upon forest resources. In addition to containing the ***highest overall densities of timber resources*** in the country (Tunduru, Kilwa, Liwale and Rufiji Districts), southern Tanzania is home to some of the ***nation's largest areas of unprotected woodland on public land***, and whose management is largely dependent upon surrounding rural communities. As such, this part of the country theoretically stands to benefit from current forest policies and enabling legislation that support wider stakeholder involvement, empowerment and ownership.

At the same time, experience in southern Tanzania has demonstrated how efforts to improve development prospects, such as infrastructure rehabilitation, have also led to serious ***environmental and socio-economic trade-offs***. For example, improved accessibility following completion of the Mkapa Bridge and other road improvements has facilitated a surge in uncontrolled logging and timber trade activities in recent years. On the one hand, this part of the country has become increasingly important as a primary revenue source for central government, with Rufiji, Kilwa and Liwale Districts among the top four forest product revenue earners in the country during 2003/2004. On the other hand, however, forest inventories conducted in 2005 concluded that most forests in southern Tanzania *"are degraded"* or *"heavily degraded"*. Further, rates of revenue loss from irregular timber trade were amongst the highest in the country.

A variety of approaches were employed in the research and writing of this report to better understand changes in timber trade dynamics in southern Tanzania, governance challenges, driving forces and influencing factors. Methodologies included the review of official government statistics on forest status and trade, independent 'counting' assessments of timber trade from forest to port, forest disturbance transects, extensive stakeholder interviews and aerial observations.

Contemporary timber trade dynamics and driving forces

High urban demand for timber within Dar es Salaam has depleted most nearby supplies of hardwood, with the number of valuable species and sizable specimens markedly increasing the further one moves southwards. Indeed, ***little harvesting of valuable timber trees occurs within 200 km south of Dar es Salaam***, and during 2005 more than 80% of the trees harvested within 20 km of the city were used for non-timber purposes such as house construction or charcoal production. In 2003, Rufiji District accounted for around 70% of all timber harvests in the study area, followed by Kilwa District, with an ***ongoing and gradual southward shift in harvesting***.

Timber trade ***volumes stayed high throughout 2003 and up until mid-2004*** when enactment of new forest legislation banned the export of round wood from natural forests. During 2003, a year when trade was only marginally interrupted by logging and trade restrictions, it was estimated that over 500 000 m^3 of timber was harvested for commercial purposes from southern Tanzania (a figure which combined officially recorded harvests and estimates of unrecorded, illegal felling). This volume is equivalent to over 830 000 trees, with harvesting intensity reaching 91 m^3 of timber per km^2 of forest (mostly coastal forests and miombo woodland) in Rufiji and Kilwa.

Numerous ***quantitative measures of unsustainable harvest levels*** (including evidence of widespread undersize cutting, scarcity of valuable and sizeable specimens, changing species composition and shifting harvest areas) provide testimony to how negative

environmental impacts have progressively forced exploitation southwards. In addition to the obvious impact of undermining long-term prospects for sustainable hardwood trade, land degradation in some areas threatens agricultural prospects for rural communities, whilst coastal forests that are recognised globally for their biodiversity conservation values are under intense pressure.

At least 27 hardwood species with commercial timber qualities were harvested from miombo woodlands and coastal forests in southern Tanzania. Out of 13 species targeted for hardwood exports in mid-2004, ***over 80% constituted just three species***, *Millettia stuhlmannii, Baphia kirkii* and *Swartzia madagascariensis*. However, *Combretum imberbe* appears to have replaced *Swartzia madagascariensis* since 2005 in terms of relative export volumes. In the case of sawn wood, *Pterocarpus angolensis* and *Afzelia quanzensis* were highly targeted in most of the study area, with the exception of Rufiji District where scarcity of these species led harvesters to target *Julbernardia globiflora* as an alternative.

Destinations in Asia and Middle East are currently the main importers of unprocessed and semi-processed timber products from Tanzania, with ***China the fastest growing importer of indigenous hardwoods***. China accounted for all indigenous hardwood logs and three-quarters of processed hardwoods (sawn wood and billets) exported between July 2005 and January 2006. India is also emerging as a major importer of timber products, including all sandalwood exported in the last half of 2005.

The combination of several elements has led to a rapidly expanding timber export business from Tanzania during recent years. Firstly, ***access to international markets*** has grown with China's emergence as a major player in global timber trade and their increasing interest in hardwood supplies from East Africa; Tanzania was the continent's sixth largest timber exporter to China in 2005, increasing by almost 1400% in value since 1997. Secondly, completion of the Mkapa Bridge across the Rufiji River in August 2003 has provided ***more reliable access to the forests*** of southern Tanzania throughout the year. Together with gradual road improvements, timber trade dynamics have changed in terms of increased volumes, changes in targeted species, greater private sector investment, and a higher proportion of illegal activities. Further, ***profit margins*** for trading logs and sawn wood have remained high in southern Tanzania due to various factors, including low awareness of the true market value amongst rural communities, low levels of enforcement, relatively high abundance of targeted hardwood species, and high export prices as compared to West African nations.

Trade opportunities abound following the increased overseas market demand, accessibility to the resource and favourable profit margins. One compounding factor in the face of increased golobalisation has been an ***expanded opportunity for collusive and concealed transactions*** to arise, especially where management and law enforcement

authorities remain undercapacitated and poorly surpervised. As an example, reported timber exports from Tanzania to *all* destinations during a three-year period ending in 2005 totalled around 19 300 m^3, whilst import statistics from one destination alone, China, showed a considerably higher value, exceeding 108 500 m^3.

Management interventions and governance as a limiting factor

In general, Tanzania has a ***fairly advanced policy and institutional framework*** that, if implemented, would lead to far more sustainable and equitable forest management. Over the past ten years, there has been considerable development of key instruments and tools for forest governance, including revised forest and land policy and legislation, participatory land use planning initiatives and various decentralization reforms. Currently, responsibilities for forest management lie within the Ministry of Natural Resources and Tourism, and the Prime Minister's Office – Regional Administration and Local Government.

In response to growing concerns over levels of lost revenues, forest degradation, governance shortfalls and disenfranchised local communities, the government has implemented wide-ranging measures. The Ministry of Natural Resources and Tourism has taken a number of measures in recent years to better regulate timber trade, increase financial benefits and control corruption:

- Review of procedure for issuing licences for harvesting and transporting forest products;
- Empowerment of villagers to manage forests through participatory forest management approaches;
- Ban of exportation of all types of logs since July 2004;
- National forestry inventory (2005) and ongoing development of district harvest plans;
- Guidelines on Harvesting of Forest Products and formation of District Forest Harvesting Committees gazetted during 2006;
- Establishment of Forest Surveillance Unit in 2005/2006;
- Strengthening of checkpoints and improved security of documents used for harvesting forest produce;
- Introduction of scanning of forest product exports;
- Countrywide assessment of sawmills in 2005;
- Establishment of a forest resource database; and
- Development and implementation of an improved forest revenue collection strategy.

Since 2003, there has almost been an annual cycle of introducing periodic bans on harvesting from natural forests – the first between 24th December 2003 and 31st January 2004, the second from 1st October 2004 to 1st September 2005, and the most recent starting on 24th January 2006.

Whilst commendable, ***the majority of interventions have focussed on relatively 'quick fixes'*** such as regulatory controls and boosting management capacity. An impressive list of measures has unfortunately fallen short of the response required to fully address some root causes. In particular, ***governance shortfalls, including corruption, are a major limiting factor reducing the effectiveness of current measures***. Observations of timber transported from southern Tanzania since the most recent lifting of a nationwide harvest ban during the second half of 2006 again raised the unfortunate spectacle of irregular consignments (e.g. breaching authorization, especially the mixing of illegitimate logs) and collusion (e.g. preferential treatment, such as allowing nocturnal transport).

Understanding governance shortfalls

This study provides a ***conceptual understanding of governance in the forestry sector***, including a theoretical framework for mapping players involved, different means to define and quantify governance shortfalls, and consideration of the important social, economic, political and bureaucratic factors influencing patterns of corruption.

In terms of private sector investment, a total of 15 permanent hardwood sawmills were present in southern Tanzania during late 2004. They had relatively ***low capacity to significantly add value*** to the high volumes of timber being harvested in the area. An ***increase in wood processing investment*** has occurred in recent years within the study area, with seven sawmills starting operations since 2002. Around 35 companies exported hardwood timber products sourced from local natural forests (not including sandalwood), with over 40% owned by East Asians, mostly Chinese. Of note, the ***majority of timber exporters have some form of institutional relationship*** (e.g. patronage, formal shareholding, board members) with senior public officials, both Tanzanian and foreign. Each exporter in turn normally relies on five or more middlemen, with each working through up to ten more middlemen at village level.

In reality, ***just a few companies maintained strong control over the timber trade***, either by their sheer size of operation or through influence. For example, two exporting companies were observed to exert significant influence over the entire industry, whilst less than 40 companies dominated timber trade in the study area. At village level, a minimum of 16% of households in southern Tanzania benefited from logging and timber trade, rising up to 60% during peak logging activity.

Forest management is severely disadvantaged by ***deficiencies in public sector capacity***. A mismatch between central/local government forestry staffing and forestry revenue targets is very evident in southern Tanzania. Further evidence is presented to illustrate the ***challenges and conflicts of interest as a result of multi-tasking***, which may result in both sub-optimal performance and potential for large abuses of power. Long-

standing ***challenges of dual ministry mandates***, including the interpretation of annual revenue targets and line management complexities, continue to plague effective governance, highlighting the importance of joint planning and a clear protocol for the sharing of roles and responsibilities. ***Participatory forest management***, one possible solution for enhancing limited public sector capacity, is relatively undeveloped in southern Tanzania, but holds strong potential given the large areas of unreserved forest and the range of possible economic incentives under different models of management.

A qualitative assessment of legal compliance revealed that infractions involving round wood tended to occur at the highest levels during harvesting and export. Of concern was the ***increasing trend in illegal activity affecting several serious types of infraction***, such as logging without documentation, logging in unauthorised areas, and the use of invalid export documentation. Other infractions perceived to be increasing in severity were the marking of logs using forged hammers, and nocturnal transport. Indeed, many traders claimed that the deliberate, deceitful alteration of timber goods was on the increase in response to the increased likelihood of detection of irregular, unaltered consignments and associated financial risks (e.g. fines, bribery payments). On the other hand, the illicit transport of timber using unauthorised routes was perceived to be declining, due to a combination of logistical and economic factors.

The scale of governance shortfalls was estimated quantitatively using two measures of legal compliance, concluding that the official timber harvest volumes during mid-2004 reached as low as ***four percent of the actual volumes*** (derived from independent physical counting of trade along different routes and involving different products). Further, this represented not only a ***downward trend since 2001*** when compliance was calculated at 22%, but was also ***considerably lower than official nationwide estimates***.

These levels of legal compliance can also be interpreted in terms of tax compliance, with ***no revenue collected for up to 96%*** of timber harvesting in southern Tanzania during mid-2004. The economic implications of this revenue loss were significant at all levels of government. For example, it was estimated that Kilwa District Council would have increased its *total* annual budget by four-fold if all potential timber revenue was collected. Similarly, it was cautiously estimated that under-collection of natural forest product royalties at district level during 2003 and 2004 resulted in up to USD 58 million lost annually across the country.

One major challenge to monitoring timber trade compliance in southern Tanzania was incidents of ***fraudulent legalisation***, or 'rubber stamping', during which official documentation was issued for illegally-harvested timber, thereby rendering it legal on the market. As to be expected, estimates of illegality nearer the forest (96% at worst, as mentioned above) were higher than estimates further along the trade chain (e.g.

approximately 85-90% for exports). Spatially, there was an apparent decline in irregular and illegal activity moving southwards.

Intentional causes for governance shortfalls – that is instances of corruption – were analyzed at two levels of severity: bribery and favouritism. A qualitative assessment of bribery resulted in the presentation of a ***'timber trade bribery index'***, a combination of perceived relative frequency and scale at different stages of the timber trade chain. A serious concern was the ***apparent chronic nature of petty corruption*** whereby even timber trade activities involving legally-harvested timber products were affected by bribery. Further, the two stages showing the highest perceived levels of bribery – hammering and exporting – were ironically the most likely points of intervention when introducing trade restrictions. Without additional measures of scrutiny, ***corruption at these 'trade bottlenecks' can easily undermine the success of such interventions***. Another worrying sign was that those stages of the trade chain that exhibited the highest relative frequency of bribery were also experiencing increasing trends in bribery.

From the perspective of good governance, of greater concern than bribery were the apparent high levels of direct senior government involvement in timber harvesting and trade from southern Tanzania. Whilst differentiating between formal patronage and informal ties involving senior public officials is challenging in practice, over half of 28 exporting companies studied had some form of institutional linkage with senior Tanzanian or foreign government officials. At central and district government levels, ***many examples of self-dealing, nepotism and cronyism*** involving timber trade were evident. The ***presence of a direct interest in the timber trade by individuals within the Executive and line Ministery arguably presents the greatest concern*** with respect to ensuring integrity in decision-making, fairness, impartiality, transparency and justice. At village level, the personal involvement of village leaders in timber trade has led to an unfair distribution of profits in many rural areas. Communication gaps between rural communities and government have resulted in less support from many communities, thereby increasing the opportunity for illegal activities.

At times, ***high levels of collusion, organisation and protection*** between different government institutions and the private sector has ensured the harnessing of not only critical positions of authority within the Ministry of Natural Resources and Tourism, but also within the main association for timber traders and exporters. Examples of where ***management decisions have been influenced in the interests of relatively few people*** include exceptions given to certain companies following nationwide harvest bans and other trade restrictions; reducing the effectiveness of enforcement; questionable expenditure priorities, wasteful disbursements and embezzlement; and disciplinary or legal action.

The worst forms of timber trade-related corruption found in southern Tanzania from a long-term development perspective were a combination of: senior public officials directly involved in trade that involved a large proportion of illegally-sourced timber; overwhelming (but not transparent) control by the private sector; and shortfalls in some management decision-making. All of these aspects were somehow inter-related. ***Anti-corruption strategies in the field of timber trade therefore need to cover all forms of corruption in a holistic manner***, since strategies to counteract the most obvious form of corruption – bribery – will not only remain ineffective against other forms (such as favouritism), but may even stimulate growth in the more damaging forms of corruption. Examination of a range of ***social, political and economic conditions*** showed how important such factors are in understanding governance shortfalls.

Decentralisation and market-led development in Tanzania have been relatively recent events (since the mid-1980s), considering the required time normally needed to achieve accompanying institutional reforms. In addition, the globalisation of timber trade from Tanzania (in terms of expanding markets) has been even more recent (since the early 2000s). In reality, therefore, it has actually been the combined effects of globalisation, decentralisation and market-based development – perhaps without the necessary attention given to forest-based industry development and governance issues – that led to the increase in poorly controlled timber exploitation from southern Tanzania.

Relevance to national development

Forest and natural resource management has clear relevance to all three major clusters of poverty reduction outcomes in the NSGRP, the foremost guiding document for promoting sustainable national development. For example, the strategy specifically outlines a number of forestry-related challenges with respect to the current poverty status in Tanzania. This study illustrates some of the main contributions and threats posed specifically by the timber trade to the NSGRP (Table 1). Perhaps the most pertinent conclusion is that whilst there have been ***wide-ranging contributions, especially in terms of economic growth and reduction of income poverty, contemporary timber trade dynamics are undermining NSGRP in a number of key areas***. Further, since many of these threats are not only serious, but long-standing and, in some cases, growing in scale, they are ***acting as inhibitors towards reaching the goals of NSGRP***. Table 1, below, summarises the key contributions and threats of timber trade to the NSGRP.

Table 1

Summary of key contributions and threats of timber trade to the *National Strategy for Growth and Reduction of Poverty (2005)*, with selected examples

Cluster 1: Growth of the economy and reduction of income poverty	
Goal: Promoting sustainable and broad-based growth	
Contributions	**Threats**
Growth in central government forestry revenues e.g. FBD revenue collection from the sale of forest products almost doubled in the three years from 2002/03 to 2004/05.	**Unrealized revenues a threat to sustainable and broad-based growth** e.g. FBD revenue collected during 2002/03–2003/04 did not cover its budget, with estimated revenue losses including 10-30% from wasteful harvesting, 20-43% at sawmills, 72-96% from under-collection of royalties, and up to 75% from under-valuation.
Contributions towards local government finances e.g. Over 50% of some District Council budgets in southern Tanzania comes from forest product revenue.	**Undervaluation of GDP contributions a threat to government investment** e.g. Relatively low government commitments to forestry sector; official estimates of sector's GDP contributions only 2-3% and do not take into account large-scale illegal trade, ecosystem functions and services that lack true market values.
Increase in private investment e.g. Seven of the 15 permanent hardwood sawmills present in southern Tanzania during late 2004 started operations since 2002, increasing employment and government revenues.	**Unsustainable harvesting a threat to sustainable and broad-based growth** e.g. 2005 FBD inventories concluded most forests in southern Tanzania "are degraded" or "heavily degraded". Changes in species composition, harvest areas and timber product dimensions over time.
	Perverse financial incentives undermine long-term growth e.g. Minimum annual revenue targets have been traditionally set instead of upper limits based on maximum forest yield, with forestry revenue collections frequently exceeding projected targets.
	Deficiencies in financial capacity a threat to growth e.g. Reports of the Controller and Auditor-General on LGA accounts, 2000-03 showed seven out of 11 in southern Tanzania having an adverse opinion with not a single LGA assessed as "clean" since 2000.
Goal: Reducing income poverty of both men and women in rural areas	
Contributions	**Threats**
Increased rural incomes from timber trade e.g. At least 16% of households from villages located near forests in southern Tanzania benefit from logging and timber trade, increasing up to 60% during peak logging activity.	**'Boom-bust' cycles a threat to long-term reductions in rural income poverty** e.g. An apparent lack of sustainable micro-enterprises two years after the timber trade boom, even in villages which made large, short-term revenues and lacked the kind of constraints affecting remote areas.
Indirect improvements to market access for rural poor e.g. Many distant villages benefited from improved transport and market access, combined with business opportunities.	**Lack of SFM financial incentives a threat to reductions in rural income poverty** e.g. Lack of clear ownership, tenure and user rights, low awareness regarding the true value of the resource and high transaction costs for setting up PFM.

Cluster 3: Governance and accountability

Goal: Structures and systems of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive	
Contributions	**Threats**
Greater participation of rural communities in timber trade management e.g. Progressive revisions to timber harvest/trade procedures have steadily given communities a stronger role in licence application procedures and supervision of the harvesting.	**Inadequate enforcement of laws/disciplinary action** e.g. Larger and well-connected companies carried low risks by operating illegally, whilst smaller-scale traders disproportionately bore the brunt of targeted enforcement exercises. Relatively little action taken against officials implicated in irregular conduct.
Step-wise approach to improving regulation e.g. MNRT introduced a range of incremental, regulatory interventions since 2003, including total harvest and export bans; species, product and area-specific harvest restrictions; limitations on ports of exit, banning debarking; and revised licensing procedures. Notable enforcement successes at Dar es Salaam port, landing yards and village landing sites.	**Greater empowerment of rural communities needed** e.g. Some PFM villages ended up with a few powerful leaders getting personally involved with large-scale timber trade activities, resulting in not only unsustainable harvests but poorly distributed incomes. **Conflicts in regulations** e.g. The process for application of national harvest bans requires further scrutiny to address any breaching of PFM agreement and potential area of conflict.
Goal: Equitable allocation of public resources with corruption effectively addressed	
Contributions	**Threats**
Greater opportunities for rural communities to benefit from access and use of timber resources e.g. Formal rights to use and access forest resources, as well as numerous economic incentives, have resulted in PFM arrangements creating over 1.7 million hectares of forest placed under local management in over 780 villages by June 2006.	**Pervasive corruption undermining effectiveness of many interventions** e.g. Widespread petty corruption, highly organised patronage and personal involvement, collusive networks and an overwhelming private sector. Limited progress against corruption both in southern Tanzania and in the forestry sector.
Recent increase in public interest e.g. Unprecedented coverage of log inspections in July 2004 including front page articles in mainstream newspapers lasting over a month. Logging and timber trade frequently hit the headlines during the first six months of 2006, as well as considerable discussion during parliamentary sessions.	**Low transparency of information and decisions** e.g. Lack of public information regarding the creation of TFS, the cessation or relaxation of harvest/trade restrictions, forest-related budget allocations, disbursements of funds and revenues. **High levels of illegality** e.g. Apparent increase in levels of illegal activity in the study area from 77% during 2001-2002 to 96% during mid-2004, with ongoing compliance challenges during 2005-2006.
Goal: Effective public service framework in place to provide foundation for service delivery improvements	
Contributions	**Threats**
Increased capacity at various levels of government – staff, finances, equipment e.g. Annual budgetary increases to the forestry sector since 2003, with FBD budget for 2004/2005 increased by almost TZS 100 million (around USD 95 000) to TZS 4.9 billion (USD 4.6 million).	**Low participation of some stakeholders** e.g. Limited engagement of PCB in environment, whilst conflicts of interest, low capacity and other priorities affect other stakeholders.

Contributions	Threats
Greater accountability being asked of public officials e.g. Presidential oversight of forestry sector issues throughout 2004 and 2005, with additional emphasis placed on the accountability of forestry staff since the beginning of 2006.	**Insufficient capacity** e.g. Low levels of staffing, with many nearing retirement and limited recruitment, is a critical factor affecting performance in the forestry sector at both central and local government levels. **Insufficient accountability mechanisms and integrity** e.g. Timber harvesting has been driven and influenced almost exclusively by private sector interests, due to a lack of standardised forest management plans, together with inadequate reporting on harvest levels and performance.

Key: FBD = Forest and Beekeeping Division; TFS = Tanzania Forest Service; GDP = Gross Domestic Product; LGA = Local Government Authority; MNRT = Ministry of Natural Resources and Tourism; PCB = Prevention of Corruption Bureau; PFM = Participatory Forest Management.

Way forward – recommendations

Experience in Tanzania over the past few years indicates how sustainable and equitable timber trade has yet to be realised in the southern part of the country, despite a relatively well-developed policy and legal framework for forest management and the implementation of numerous remedial measures. This review calls for a ***higher priority to be allocated to forestry governance and the implementation of a holistic approach***, since corruption – the primary factor affecting governance shortfalls – is occurring in many forms and at many levels. A number of measures are recommended to be taken within Tanzania, including a combination of non-traditional, non-regulatory focussed tools in addition to measures to improve the efficiency of existing regulatory mechanisms. Amongst the most urgent recommendations include the following:

- Implement standardised reporting and monitoring for timber harvest and trade information;
- Apply greater emphasis on forestry during public income and expenditure reviews;
- Ensure internal disclosure of forestry sector assets by public officials, and leadership messaging to denounce internal involvement and collusion in timber trade;
- Use public notice boards at village and district levels, and publicise clear investment and business guidelines, including criteria, timeframes and roles;
- Undertake targeted campaigns on anti-forest-corruption;
- Consider the outsourcing of forestry revenue collection in a step-wise manner;
- Introduce performance-based incentive schemes for forestry staff;
- Develop, sign and publicise a MoU or circular between MNRT and PMO-RALG to clarify roles and responsibilities, including direct reporting of DFOs to the Head of FBD/TFS;
- Reassess appropriate forest inventory methodologies;
- Initiate community awareness programmes covering options for community participation, timber values, potential benefits, responsibilities, and legal procedures;
- Review the application of national harvest bans to ensure there is no breach of PFM agreements; and
- Establish TFS roles, responsibilities and lines of reporting in an expedient manner, incorporating inputs from different sectors.

3 INTRODUCTION

> *"…where illegal forestry operations are prevalent, this is not so much an accidental outcome of poor governance and ill-regulated international trade in forest products, as an integral element in the political economy…..This implies that tackling forest-related crimes and other offences does not so much require a 'crackdown' on illegal activities as a comprehensive overhaul of the institutional and legal frameworks that regulate access to and use of forest resources."*
>
> Quote taken from *Justice in the Forest* (Colchester *et al.,* 2006).

Logging and timber trade provide some of the most immediate economic benefits from forests in terms of generating government royalties, private investment, rural incomes from forest product sales and employment. These are among the important forestry contributions to Tanzania's *National Strategy for Growth and Reduction of Poverty, 2005-1010* (NSGRP).

Effective timber trade management is required to not only help ensure sustainable and equitable economic growth derived from the forestry sector, but also to help secure forest integrity in general. After all, forests are essential for so many other reasons – the provision of over 90% of Tanzania's energy supply and three-quarters of construction materials, the protection of major water catchment basins, and the source of most traditional medicines.

Driven by sustained global demand, improved accessessibility to forest areas and decentralised approaches to forest management, logging activities, particularly in southern Tanzania, have witnessed a surge since the early 2000s. An extended Tanzanian community - including parliament, relevant ministries, development partners, non-governmental organizations, rural communities and media - has become genuinely concerned by the rapidly increasingly scale of both irregular exports of timber and uncontrolled harvesting. Specific concerns are based on various negative economic, social and environmental impacts that contribute towards uncaptured growth potential.

Disturbing trends in the forestry sector are certainly not unique to Tanzania; other African countries including neighbouring Mozambique and Democratic Republic of Congo are reportedly experiencing similar dynamics (Standing *et al*., 2006). At the global level, considerable debate revolves around the role played by major importing, processing and consuming nations in stimulating the scenario currently unfolding in Tanzania. Concerns over uncontrolled, unsustainable and illegal timber harvest and trade activities have certainly gained increasing resonance in international circles.

Illegal timber trade and governance are two inter-linked issues that are high on the international agenda and currently being translated into regional action through *Forest Law Enforcement and Governance* processes. The emphasis on good forestry governance is timely, as the current 'fourth phase' government in Tanzania places greater urgency on governance and accountability issues within the NSGRP, and reacts to concerns expressed by development partners involved in the environment sector.

Governance is *"the manner in which power is exercised in the management of a country's economic, social and natural resources for development"* (adaptation of World Bank definition). In general, however, attempts to understand governance issues in the forestry sector have tended to be rather polarised in one form or other. For example, many stakeholders from Tanzanian civil society organisations view public institutions as the only culprits in the forestry sector. Further, people with weak socio-political backgrounds commonly regard corruption and governance as one and the same thing, with corruption the only reason for governance shortfalls. On the other hand, many members of the public sector claim that capacity-related constraints alone are the primary reason for governance shortfalls. Almost universally, there is a simplified understanding of the multifaceted interactions between private and public sectors in overall governance and policy-making. This report hopes to dispel such polarised views and present a more balanced and accurate reflection of current timber trade governance.

This study takes a closer look at contemporary timber trade dynamics, institutional relationships, accountability and governance in southern Tanzania. Measures of progress against the *National Strategy for Growth and Reduction of Poverty (2005-2010)* and *Indicative List of Actions* arising from the *African Forest Law Enforcement and Governance Ministerial Conference (2003)* help to shape recommendations in the best national interests of Tanzania.

This study derives from a meeting chaired by the Honourable Minister Mrs. Zakia H. Meghji, MP, held at the Ministry of Natural Resources and Tourism on 3rd March 2005 to discuss unsustainable forest resource utilisation. At that meeting, attended by development partners in the forestry sector, it was agreed to conduct an *independent* case study of the situation experienced south of Rufiji River. Subsequently, the Forest and Beekeeping Division drafted a Terms of Reference for this independent case study. According to the Terms of Reference, the overall objective was to define the need for change in current practices and institutional arrangements that will hinder the occurrence of unsustainable and illegal resource utilisation.

TRAFFIC, the wildlife trade monitoring programme of WWF and IUCN, was contracted for this study based on the experience gained from previous work on timber trade issues in the region (Milledge *et al.,* 2005a,bc). In this way, the study particularly benefited from a TRAFFIC baseline study of the timber trade before completion of the

Mkapa Bridge, as well as ongoing monitoring activities conducted during 2004 and 2005 with funds provided by the Critical Ecosystems Partnership Fund (CEPF) under an umbrella agreement with the Vice-President's Office (VPO). All work has received formal support from the Forestry and Beekeeping Division (FBD). The Royal Norwegian Embassy took the lead role of administering the contract on behalf of the Tanzania Development Partners Group (DPG).

This study specifically ***contributes towards delivery of two National Forest Policy (1998) objectives*** (and corresponding *National Forest Programme (2001-2010)* development programme objectives):

> *(i) Ensured sustainable supply of forest products and services by maintaining sufficient forest area under effective management; and*
>
> *(ii) Increased employment and foreign exchange earnings through sustainable forest-based industrial development and trade.*

Following an executive summary, introduction and a description of the methodology used, the report is structured around five main chapters. Chapter 5 provides background on tropical timber trade on the global agenda, the legal framework for forestry management in Tanzania, as well as the socio-economic and political setting. Chapter 6 reviews contemporary hardwood trade dynamics from natural forests in southern Tanzania, relying mostly on data collected during 2003 and 2004. This period of time represents relatively 'normal' timber trade dynamics, i.e. before a spate of government restrictions began to be introduced. This chapter also summarises indices of unsustainability, and an outline of more recent timber export statistics. Chapter 7 documents the major driving forces of an expanding timber trade, ranging from localised issues of forest tenure to globalisation of markets. Chapter 8 looks into the various institutional challenges affecting governance, providing qualitative and quantitative evidence of governance shortfalls (up until the end of December 2005) and influencing factors that preclude effective management[4]. This chapter also outlines the range of management interventions that have taken place in the past few years, highlighting government commitment to the cause, but also revealing governance as a limiting factor to the success of such measures. Chapter 9 outlines the relevance, positive contributions and threats posed by timber trade to two of the three clusters of NSGRP. Finally, chapter 10 provides recommendations to improve timber trade management in Tanzania, with a special focus on governance.

[4] It should be noted that due to government staff changes since field work was completed at the end of 2005, some references to governance shortfalls within specific institutions or levels of government may no longer be precise.

4 METHODOLOGY

Information contained within this report was derived from official statistics, independent field research, stakeholder consultations and available literature (Table 2). The field work was focussed in Rufiji, Kilwa, Lindi, Nachingwea, Liwale, Ruangwa and Masasi Districts in Tanzania.

All official data was gathered with the collaboration of FBD, relevant regional, district and village government offices, development partners, non-government organisations and private sector stakeholders. Interpretation relied on a range of independently gathered data, both quantitative and qualitative. The analysis and interpretation of official statistics on timber trade and independent monitoring data followed the methods used during earlier baseline work before completion of the Mkapa Bridge (as detailed in Milledge *et al.*, 2005).

Table 2

Sources of statistics and other information consulted

Category	Source of statistics
Forest status	FBD forest inventories Independent (IUCN, Mpingo Conservation Project) stock assessments Independent (TRAFFIC) forest status surveys
Harvesting	Harvest licences and district forest office monthly reports FBD and TRAFFIC landing site inspections Independent (TRAFFIC) forest disturbance surveys Independent (TRAFFIC) aerial reconnaisance
Internal transport	Transit passes Natural resource checkpoint records Independent (TRAFFIC) monitoring of timber transport and trade
Private investment	FBD assessment of timber processing capacity Independent (TRAFFIC) assessment of institutional relationships
Exports	FBD export statistics Shipping company records FBD port and loading yard inspections Independent (TRAFFIC) monitoring of informal ports
Financial management	FBD revenue targets and collections FBD annual budgets and expenditures Controller and Auditor General reports
Governance	Prevention of Corruption Bureau statistics FBD internal reports Independent (TRAFFIC) assessment of illegality and corruption Stakeholder consultations

Notes: In addition, a review of published and grey literature added to the information base.

Forest surveys were conducted in a total of ten coastal forests ranging from the vicinity of Dar es Salaam to the southern boundary of Rufiji River, thereby sampling a gradient of increasing distance to Dar es Salaam (10 km to 250 km). The selection of study sites focused on forests that had been sampled previously (Clarke *et al.*, 1995) in order to facilitate an assessment of changes over time. These included Kiwengoma, Mchungu, Namakutwa, Ngulakula, Ngumburuni, Pugu, Ruvu South and Vikindu Forest Reserves, Pande Game Reserve and Kisiju on general land.

The field assessment was conducted along transects 10 m wide and 0.5-1.5 km long. The sampling intensity per forest reserve was adjusted to 0.15% of the respective area, and sampling locations were assigned randomly within sub-units that had been delineated according to accessibility characteristics. In total, 33 transects covering an area of 20 hectares were surveyed. Along these transects, all standing trees and stumps greater than five centimetres diameter at breast height (DBH) were recorded with species name, DBH, height, visible damages, and – in the case of felled trees – the approximate stump age. Other recorded parameters included accessibility characteristics (i.e. distance from the nearest road, path and village and ease of access) and environmental site characteristics (i.e. altitude, slope, position on the slope, aspect and water association).

Data analysis was conducted using general linear models, ordinations and other standard statistical procedures (e.g. Dytham (1999) and Zar (1999)). Further details are provided in Ahrends (2005).

Credit: Antje Ahrends

Forest disturbance transects, Ngumburuni Forest Reserve

Methods used to understand and quantify corruption and other aspects of governance are explained in chapter 8.

Data was standardized for comparative purposes, with sawn wood volumes expressed as cubic metre round wood equivalents (average conversion rates of 1 m^3 round wood = 0.3 m^3 sawn wood, and one tonne hardwood = 0.7 m^3 round wood were used). Species names are given in Annex 1.

Tanzania shilling (TZS) amounts were converted to US dollars (USD) at the following rates per USD: 1985 - TZS 52; FY96 (July 1995 to June 1996) - TZS 575; FY01 - TZS 824; FY02 - TZS 905; FY03 – TZS 976; FY04 - TZS 1053; FY05 - TZS 1057; July to December 2004 – TZS 1045; and July to December 2005 – TZS 1140. All conversions to USD were adjusted for inflation.

5 BACKGROUND

5.1 Tropical timber trade on the global agenda

The forestry industry is a ***major global economic sector***, with gross forest production projected to grow to USD 299 billion by 2020 (Brack *et al.*, 2002). Logging, trade and export of forest products form a major source of international revenue for many countries. Further, the ***importance of forests in sustainable development*** is underlined by recent estimates by the World Bank (2004) that over 90% of the 1.2 billion people living in extreme poverty depend on forests for some part of their livelihoods. This important linkage has been captured in the seventh Millenium Development Goal, *"to ensure environmental sustainability"*, with the area of forest cover included as one of the indicators.

5.1.1 Growing influence of Asian markets on global timber trade

The influence of Asian timber markets on global trade dynamics became particularly prominent following the Asian financial crisis of 1997-1998 (Adams, 2004). At the extreme, tropical plywood prices plummeted by up to 60%. However, perhaps the most influential market changes in Asia during contemporary times can be linked to China's rapid rise as a global competitive force[5].

Following China's decision to drastically limit domestic log harvesting[6] in 1998, import duties on logs (and sawn wood) were lifted to allow sufficient supply to Chinese mills. As a result, China soon became a major importer of logs, with imports rising from 40 million m^3 worth USD 6.4 billion in 1996 to 134 million m^3 worth USD 16.4 billion in 2005 (White *et al.,* 2006)[7]. China is currently the largest importer of round logs (and total forest products) in the world[8] (Thornton, 2005).

Aptly put in a recent review, ***China has become the "world's largest wood workshop"*** (White *et al.,* 2006). A large proportion of the imported wood into China is re-exported

[5] China's economy is growing at a rate of more than nine per cent per annum, with increasing hardwood imports attributed to a rapid rise in per capita disposable income, booming business needs and housing development (ITTO, 2005a). Since 2000, China's contribution to global growth in terms of GDP has been almost double that of India, Brazil and Russia combined – the next three largest emerging economies (White *et al.,* 2006).

[6] The *Natural Forest Protection Programme*, which effectively banned logging, was introduced following serious flooding of the Yangtze and Yellow river basins due to deforestation (Adams, 2004; White *et al.,* 2006).

[7] Attempts are being made to supply timber from domestic plantations. For example, under the *Growing and High Yielding Timber Plantation Programme*, China is aiming to establish 9.2 million hectares by 2010, with the potential to supply 96.7 million m^3 of timber and 7.3 million m^3 of wide diameter wood (ITTO, 2005a).

[8] Concurrent with the rise in log imports has been an equally dramatic drop in plywood imports. Indeed, the rapid development of a plywood manufacturing sector soon led to Chinese plywood exports rivalling those of Indonesia and Malaysia in terms of volume and quality (Adams, 2004).

as manufactured products. Indeed, Chinese wood exports have increased almost as fast as wood imports, from USD 3.6 to 17.2 billion between 1997 and 2005, with the equivalent of approximately 70% of wood imports used in exported wood products. Major markets such as the USA and European Union (EU) exert huge demand for Chinese manufactured wood products, with imports increasing by 700-900% between 1997 and 2005 (White *et al.,* 2006). As an example of rising profits, the value of fibreboard, plywood and hardwood (sawn) exports from China increased by 393, 55 and 39% respectively between 2004 and 2005 (ITTO, 2005a).

One of the greatest current concerns with regard to China's timber trade is that ***considerable quantities of timber originate from countries experiencing high levels of illegal logging*** (LLC, 2004; Thornton, 2005). Increasing volumes of timber pass through China for processing en route to the western world, making it easier to launder illegal consignments and disguise its origins (Anon., 2006a; Xu *et al.*, 2004).

5.1.2 Extent of illegal logging and trade in forest products

Estimating the extent of illegal logging and timber trade is somewhat problematic due to the various definitions and interpretations. For the purposes of this report, illegal logging implies *"contravention of national or international law at any point along the trade chain from source to consumer"*. The variation in definitions makes comparative studies of illegal logging estimates difficult. However, there is general consensus that ***illegal logging occurs widely, at a large scale and is on the increase***[9].

The ***financial ramifications*** of illegal logging and timber trade include losses of government revenues from non- or under-payment of royalties. In 2002, the World Bank estimated the global cost of such evasion at between USD five and fifteen billion (Anon., 2006a; Colchester *et al.,* 2006; Rosenbaum, 2005). Further profit losses arise from product devaluation through under-cutting the prices of legal timber as illegal logs tend to be cheaper than legal ones[10]. In 2004, the American Forest and Paper Association calculated that illegal wood depressed world timber prices by between 7% and 16% depending on the specific product (Anon. 2006a).

Illegal logging commonly ***damages the livelihoods*** of rural communities living close to forests, especially through the degradation of environment services such as water supply

[9] Various estimates of exports of illegal origin include the following: Bolivia, 80-90%; Brazil, 80%; Cambodia, 94%; Indonesia, 70%; Cameroon, 50%; Gabon, 70%; Russia, 20%. Imports of illegal origin to the UK are estimated at 60% and to the EU at 50%. According to the American Forest and Paper Association, some 80% of tropical timber imported into Europe comes from illegal sources (Anon., 2006a; Colchester *et al.,* 2006).

[10] The American Forest and Paper Association estimated that illegal logging caused losses of around USD one billion annually in the USA from lost export value and devalued export sales (LLC, 2004).

and other elements of human well-being. Further impacts from illegal logging come in the form of nurturing corruption, thus ***undermining governance structures*** at all levels.

5.1.3 Global action on illegal timber trade and forest governance

Illegal logging and timber trade has received increasing international attention over the past decade, including discussions and decisions made at G-8 Summits, International Tropical Timber Council, United Nations Forum of Forests, World Summit on Sustainable Development, Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). More recent commitments from some of the major tropical timber importers to tackle illegal logging have included the *US President's Initiative Against Illegal Logging* in July 2003 and the *G8 Action Programme on Forests* in July 2005.

Credit: Antje Ahrends

View through Ruvu South Forest Reserve

In addition, regional political processes known as *Forest Law Enforcement and Governance (FLEG)* are gaining momentum. FLEG is designed to curtail forest loss, address illegal logging and unsustainable practices, creating a framework for sustainable forest management and improved benefits at all levels (Colchester *et al.,* 2006). To date, FLEG processes have been strongly promoted in the European Union, Asia and Africa, and are now putting more emphasis on corruption and governance issues. Within Africa, most focus on logging issues has been in the continent's major timber exporting countries within the Congo River Basin, as well as Ivory Coast. These countries exported just less than one quarter of their total log harvest during 2003-2004 (ITTO, 2004). As part of the *African Forest Law Enforcement and Governance* (AFLEG), two regional Ministerial Conferences have taken place since September 2001 including one in Africa[11]. These provided the basis to gain commitment from the highest levels of government in halting forest crimes and associated corruption. The Ministerial Conference resulted in the adoption of a *Declaration* and *Indicative List of Actions.* A progress review in late 2005 expressed the need for more on-the-ground efforts (World Bank, 2005a).

[11] Following a planning meeting held in June 2002 (Brazzaville), the AFLEG Ministerial Conference took place in October 2003 (Yaoundé, Cameroon) with the participation of 31 African countries and eight consumer countries.

5.2 General overview of Tanzania

The United Republic of Tanzania is the third largest country in eastern and southern Africa, covering a total area of 945 090 km^2. Tanzania is located between parallels 1^0-12^0 S and meridians 29^0-41^0 E, and borders eight countries and the Indian Ocean. Over one third of the land area on mainland is covered by woodlands and forests (Table 3).

Most of the country lies at 1000-1500 m above sea level, although a lower plateau occurs south of the Rufiji Valley (500-700 m). Climate ranges from humid, monsoonal conditions along the 900 km of coastline to alpine deserts on Mount Kilimanjaro. Rainfall is generally erratic and varies from 400 mm in the central regions to 2500 mm in the highlands.

Table 3

Land use types and their distribution in Tanzania mainland

Type of land use	Area (000 ha)	%	Type of land use	Area (000 ha)	%
Grazing land	48 740	51.7	Small holder cultivation	3 880	4.1
Forests and woodlands	33 555	35.6	Urban development	1 600	1.7
Inland water	5 900	6.3	Large-scale cultivation	585	0.6

Source: FBD (2000).

The population of Tanzania is estimated at 34.6 million people (NBS, 2003) and continues to grow at an estimated rate of 2.8% per annum[12]. Over 80% of Tanzanians are living in rural areas depending mostly on land and natural resources for subsistence. Agriculture, mostly extensive and low technology, is the mainstay of the Tanzanian economy, contributing 45-50% GDP and employing around 80% of the population work force. The quality and availability of arable land is a major factor influencing human demographics. With the second largest deposits in Africa, gold accounts for 60% of exports[13], now replacing agriculture in terms of export value (Khan *et al.*, 2005).

[12] Population growth rates vary between 1.4% per annum (Lindi Region) and 4.8% (Kigoma Region).

[13] Mining is the fastest growing sector and accounts for 60% total exports, but only 3% of GDP (Khan *et al*., 2005).

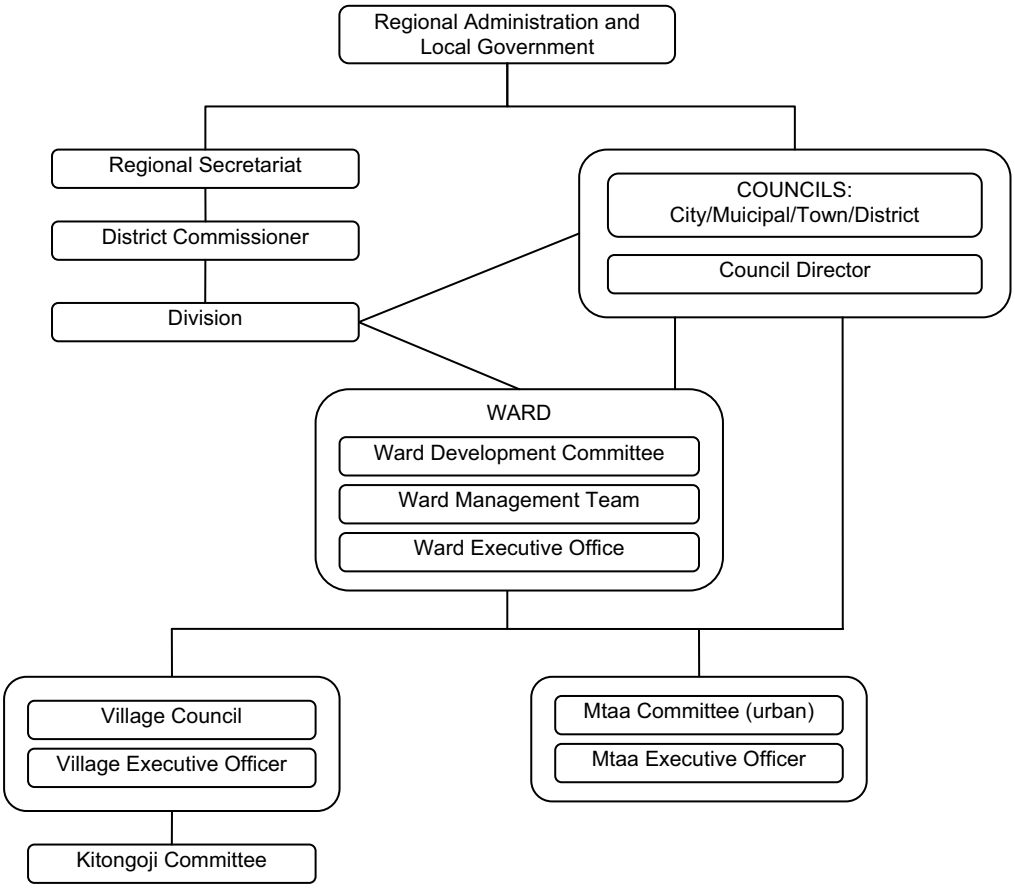
5.2.1 Political and administrative structure

The Government of the United Republic of Tanzania is a unitary republic based on multiparty parliamentary democracy (Anon., 2006b). The Constitution (1977) provides for three organs of the Central Government: Executive, Parliament and Judiciary. Independence was gained in 1961 and *Chama cha Mapinduzi* (CCM) has been the ruling party since 1977[14].

Local Government Authorities (LGAs) assist the central government, with co-ordination coming from the Prime Minister's Office – Regional Administration and Local Government (PMO-RALG). Tanzania is divided into twenty-six administrative regions and 130 districts, subsequently split into divisions, wards and over 11 000 villages. The organisation of local government is summarised in Figure 1. Institutional structures specific to forest management are presented in chapter 5.3.1.

Figure 1

Diagram illustrating local government entities



[14] Strong domination by CCM prevails, with parliamentary representation increasing from 78% in the first multiparty elections in 1995 to 87.3% in the 2005 national elections (Khan *et al.*, 2005).

5.2.2 Socio-economic overview

Since the mid-1980's, Tanzania has implemented various reforms in the political system, economic management and government administration, with key reform programmes targeting economic recovery, public sector, local government, parastatals, trade liberalization and privatisation. As a result, Tanzania has one of Africa's fastest growing economies, with GDP growth rising to 6.3% in 2004 (Khan *et al.*, 2005). Tanzania has remained peaceful and politically stable, encouraging it to become the second highest recipient of Foreign Direct Investment on the continent.

Despite notable success in economic reform programmes, Tanzania continues to be ranked amongst the five poorest countries in the world (Mariki *et al*., 2003). Average growth rate per capita from 1990 to 2003 was only 1.1% (Khan *et al.*, 2005). Income poverty remains high with 18.7% of the population living below the national food poverty line and 35.7% below the national basic needs poverty line according to the *Household Budget Survey* of 2000/2001 (VPO, 2005). Further, 87% of the poor population live in rural areas, especially those households dependent upon agriculture.

Credit: Simon Milledge/TRAFFIC

House fenced with wood offcuts, Ikwiriri, Rufiji District

Tanzania was identified as one of the priority countries in the 2005 Human Development Report due to an apparent lack of progress towards meeting the Millennium Development Goals. Tanzania, and indeed East Africa as a whole, remains largely marginalised from global trade, particularly in the sense that most exports entail primary goods[15] such as timber (Mkenda, 2002). In 2002/2003, the Government of Tanzania was 45% dependent on foreign aid (Mramba, 2003).

5.2.3 National poverty reduction agenda

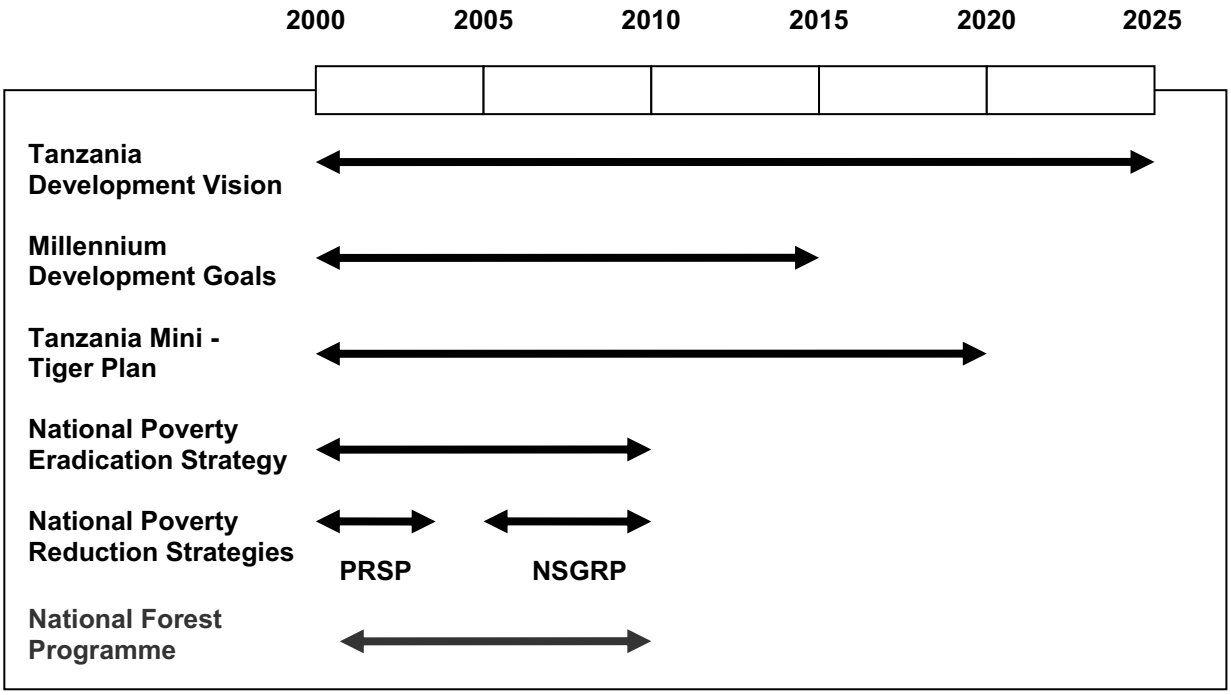
The primary framework document for poverty reduction in Tanzania is called the ***National Strategy for Growth and Reduction of Poverty*** **(NSGRP)**, also known as ***Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania*** **(MKUKUTA)**. The NSGRP/MKUKUTA is a five-year plan (2005-2010), which builds on several guiding plans at national[16] and international levels contributing towards the targets of the *Tanzania Development Vision 2025* (Figure 2).

[15] Exports of manufactured goods are generally believed to outstrip primary goods in terms of increasing participation in global trade, as has indeed been witnessed in East Asia and Latin America (Mkenda, 2002).

[16] National strategies have the ultimate aim of realising a 50% reduction in abject poverty by 2010 (*National Poverty Eradication Strategy*) and total eradication by 2025 (*National Development Vision 2025*).

Figure 2

Timeframe for various plans relating to reducing poverty (and forestry) in Tanzania



One notable change in the structure of the NSGRP when compared to its predecessor[17] is from a *"sectoral approach"* to an *"outcomes approach"* that *"counts on the contribution of all sectors towards specific outcomes on growth, improved quality of life, good governance and equity"* (VPO, 2005). In this way, NGSRP/MKUKUTA contains three major clusters of desired outcomes for poverty reduction and growth:

1 Growth and reduction of income poverty	**2** Improved quality of life and social well-being	**3** Good governance and accountability

5.2.4 Environmental sector

Due to its large size, varied topography, geography, climate and associated vegetation, Tanzania has a wealth of natural resources including minerals, wildlife, fisheries, forestry and beekeeping. Tanzania's natural resources and environment are the main source of people's livelihoods and the backbone of the country's main productive sectors: agriculture, tourism and mining. Revenue collection by the Ministry of Natural Resources and Tourism (MNRT) has increased from TZS 4.26 billion (USD 8.4 million)

[17] *Poverty Reduction Strategy Paper* (PRSP), 2000/2001-2002/2003.

in 1995/1996 to TZS 28.0 billion (USD 26.5 million) in 2004/2005, contributing up to 16% of GDP (MNRT, 2005a). Mining and tourism are the fastest growing sectors in the economy, making the management of natural resource rents[18] a crucial issue (Khan *et al.*, 2005).

Tanzania has globally-recognised floral and faunal species diversity and endemism. For example, the Eastern Arc Mountains and Coastal Forests are among the top ten global biodiversity 'hostpots', but are seriously threatened by habitat loss and species extinctions (Brooks *et al.,* 2001; Myers *et al.*, 2000).

Credit: Simon Milledge/TRAFFIC

Tourism - one of the fastest growing economic sectors

Environmental management is guided by the *Environmental Policy (1997)* and *Environmental Management Act (2004)*. In recognition of the role that the environment plays in shaping livelihoods and major economic growth sectors, the NSGRP embraces the environment as one of several cross-cutting issues. This marks a notable improvement on previous poverty reduction strategies and an important milestone in efforts to mainstream environmental concerns into all relevant sectors[19]. The current 'fourth phase' government has recently placed environmental considerations high on its agenda, with one of ten core issues dedicated to "*lead a new initiative on environmental conservation so that future generations may inherit a beautiful country with a secure base for sustainable development"* (Kikwete, 2005).

5.3 Overview of the Tanzania forestry sector

5.3.1 Institutional and legal framework

The Forest and Bee-keeping Division (FBD) constitutes one of the five sub-sectors[20] within the Ministry of Natural Resources and Tourism (MNRT). FBD is responsible for policy formation, ensuring execution of forest legislation, and has mandate over national

[18] *Rents* are *"incomes that are created by state interventions"*, whilst *rent seeking* is all *"activities that seek to create, capture or re-allocate rents"* (Khan *et al*., 2005).

[19] With regards to forestry, the *National Forest Programme* (NFP) highlights sectoral linkages with environment, agriculture, energy, health, lands, minerals, water, wildlife and gender (FBD, 2001).

[20] The other four sub-sectors include Wildlife, Fisheries, Tourism and Antiquities. MNRT is further comprised of four Parastatals (Tanzania National Parks, Ngorongoro Conservation Area Authority, Tanzania Tourist Board and National Museum of Tanzania), six Training Institutes (Mweka, Pasiansi, Olmontonyi, Moshi, Mbegani and Nyegezi) and two Executive Agencies (Tanzania Tree Seeds Agency and National College of Tourism).

forest reserves in addition to specific projects of national importance (e.g. national forest plantations, water catchment forests and mangroves). The organisation of the FBD is shown in Annex 2. However, steps have been taken to transform the FBD into the Tanzania Forest Service (TFS), an Executive Agency established under the *Executive Agencies Act* (No.30 of 1997).

The forestry sector is guided by the *National Forest Policy*[21] adopted in March 1998, whose overall goal is to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations. The *National Forest Programme* (NFP) is a ten-year framework (2001-2010) which guides implementation[22] of the *Forest Policy* (FBD, 2001). The NFP is currently under review.

The *Forest Act (No. 14 of 2002)* provides for the management of forests which came into operation on the 1st July 2004 (*Forest Act (Date of Commencement) Notice*, *2004; Government Notice No. 160*). The *Forest Regulations*, 2004 (*Government Notice No. 153*) were made under section 106(1) of the *Forest Act (2002)*. During 2006, further revisions to forest legislation have included the *Forest Amendment Regulations, 2006* and the *Forest (Charcoal Preparation, Transportation and Selling) Regulations, 2006*. Details of regulations covering the harvesting, trade and export of forest products are given in Annex 3.

Policy and legislative revision took place in light of the linked forces of ***decentralising forest management, encouraging participatory forest management*** (e.g. Joint Forest Management or Community Based Forest Management), and ***ensuring forests contribute towards national poverty alleviation goals***. Participatory Forest Management (PFM) guidelines were drawn up in 2001.

A key issue facing the forestry sector is that despite a relatively comprehensive institutional and legal framework (as detailed above), implementation is severely limited by ***inadequate human and financial capacity and the delayed finalisation of various institutional arrangements*** (e.g. establishment of TFS).

Decentralised forest management

Forest management also involves the Prime Minister's Office – Regional Administration and Local Government (PMO-RALG), especially in light of ongoing decentralization, privatization and reform programmes aimed at strengthening Local

[21] A *Beekeeping Policy* was also adopted in 1998. Forestry and beekeeping policies are currently under review.

[22] The NFP is based on four implementation programmes: Forest Resources Conservation and Management; Institutions and Human Resources; Legal and Regulatory Framework; and Forestry Based Industries and Sustainable Livelihoods (FBD, 2001). A review of the NFP was undertaken in early 2006.

Government Authorities (LGA). At the regional level, a Regional Natural Resources Advisor (RNRA) supervises all forestry functions and forms part of the Regional Secretariat, reporting to the Regional Administrative Secretary (RAS). At the district level, a District Natural Resources, Lands and Environment Officer (DNRO) is in charge of forestry functions and reports to the District Executive Director (DED) as an employee of the LGA. The DNRO is assisted by a District Forest Officer (DFO) who also reports to the DED. Understanding of reporting lines is somewhat confused, however, since both Regional and District Catchment Officers report directly to the Director of FBD.

The MNRT maintains a Ministerial representative at PMO-RALG to act as a link between the two ministries (TFCMP, 2005). Rytkönen (2004) provided further detail on the operational linkages within this dual ministry structure (summarised in Milledge *et al.,* 2005a).

Wider sectoral linkages

In addition to MNRT and PMO-RALG, forest management in Tanzania is also dependent upon a range of other sectoral policies and actors. For example, PFM is dependent on land titling (*Land Act, 1999* and *Village Land Act, 1999*) and the enactment of village by-laws (*Local Government Miscellaneous Amendments Act, 1982*), all of which lie outside the jurisdiction of FBD. Other specific examples include the influence of infrastructure developments (e.g. Mkapa Bridge) and energy demand on forests. Overall, at least fourteen national policies relevant to the forestry sector have been revised over the past two decades alongside macro level, socio-economic reforms (Milledge *et al.,* 2005a). A synopsis of sectoral policies with respect to opportunities and constraints for improving forest governance is given in Table 4 (Mariki, 2004). The recently revised NSGRP also contains many direct references to the forestry sector (chapter 9). In 2002/2003, donor agencies and other development partners provided about 68% of forestry sector financing (Mariki, 2004).

Credit: Simon Milledge/TRAFFIC

Zanthoxylum chalybeum logs

Table 4

Policy opportunities and constraints for improving forest governance

Policy Area	Opportunities	Constraints and impacts
Environment	Environmental consideration given in all land and natural resource development activities.	Poor capacity at all levels inhibit interpretation and implementation of environment issues on the development agenda especially at local levels.
Agriculture	Catchment forestry management contributes to agricultural production for the majority of smallholder farmers.	Lack of co-ordination and conflicting land uses lead to more degradation of forest land upon which marginal groups depend.
Energy	Forest and other biomass contributes over 92% of the total energy used in the country.	Forest degradation and limited access to affordable alternatives impact rural areas.
Health	Flora and fauna play a significant role in traditional medicine for over 30% of rural and poor communities.	Medicinal plant species depended upon by poor rural and urban communities decline as a result of unsustainable land uses.
Lands	Land access and ownership rights given to all communities and individuals under the *Village Land Act (1999)*.	Land use conflicts emanate from weak capacity and absence of land use plans. Increasing large-scale development marginalize the rural poor.
Water	Water contributes to irrigated agricultural production, hydropower generation and water supply for citizens.	Conflicting interests in water resource management and unco-ordinated management effort impact local communities negatively.
Wildlife	Provisions for utilization of wildlife for local subsistence and supporting village based development programmes enhanced.	Conflicting land use objectives and fragmented institutional frameworks for management of wildlife areas.

Source: Adapted from Mariki (2004).

5.3.2 Forest resources

Forest types

The *Forest Act (2002)* specifies four forest[23] types (National forests, Local authority forests, Village forests and Private forests), and details the development and implementation of relevant Management Plans for each forest type. National and Local authority forest reserves may be *production* forest reserves (i.e. used principally for the sustainable production of timber[24] and other forest produce), *protection* forest reserves (i.e. used principally for the protection of water sheds, soil conservation and protection of wild plants) and/or *nature* forest reserves (i.e. used principally to protect nature and scenic areas of national or international significance and to maintain and enhance biodiversity and genetic resources). Village forests may consist of *village* land forest reserves (owned and managed by one or more village government) or *community* forest reserves created out of village forests (and not restricted to government ownership and

[23] A *"forest"* is defined in the *Forest Act (2002)* as *"an area of land with at least 10% tree crown cover, naturally grown or planted and/or 50% or more shrub and tree regeneration cover and includes all forest reserves of whatever kind declared or gazetted under this Act and all plantations"*.

[24] *"Timber"* is defined as *"any wood or tree which has felled or has been felled or cut off and all wood whether unsawn, hewn, sawn or machined, split, or otherwise cut up or fashioned and shall include lumber, flooring strips, shingles, and sleepers but does not include any article manufactured from such wood or firewood"*.

management). *Joint* forest management is also practiced, involving a combination of village government and central government or local authority stakeholders. Private forests are available either as forestry dedication *covenants* (to holders of a right of occupancy) or *concessions*.

Forest status

According to official records, forests and woodlands cover some 33.5 million hectares, equivalent to ***around 40% of the total mainland area*** of Tanzania (FBD, 2001; Table 5; Figure 3). Tabora, Rukwa and Lindi Regions have the largest forest extent in the country, each exceeding 450 000 hectares (World Bank, 2005b).

Brachystegia - Julbernardia miombo woodlands cover almost two-thirds of the forested land, almost half (96 000 km^2) of which has been set aside as some form of wildlife protected area (Mgoo *et al*., 2000). A smaller area is covered by montane forests, mangroves and coastal forests. Globally recognised for their high levels of species richness and endemism, 82% of the known coastal forest area in Tanzania is located within Forest Reserves (Burgess *et al*., 1996).

Almost two-thirds (61%) of Tanzania's woodlands and forests are unreserved (Table 5). Of the remainder, approximately 15 million hectares is included within 815 forest reserves (608 declared and 207 proposed), the majority of which are managed by the central government (10.9 million hectares).

Almost three-quarters of reserved forests are classified as productive (MNRT, 2002). Harvesting for logs and timber occurs mostly in the following regions: Lindi, Morogoro, Mtwara, Tabora, Rukwa, Kigoma, Singida, Pwani, Tanga and Mbeya (Mbonde, 2005). The distribution of forests is important for setting annual harvest limits and establishing concessions.

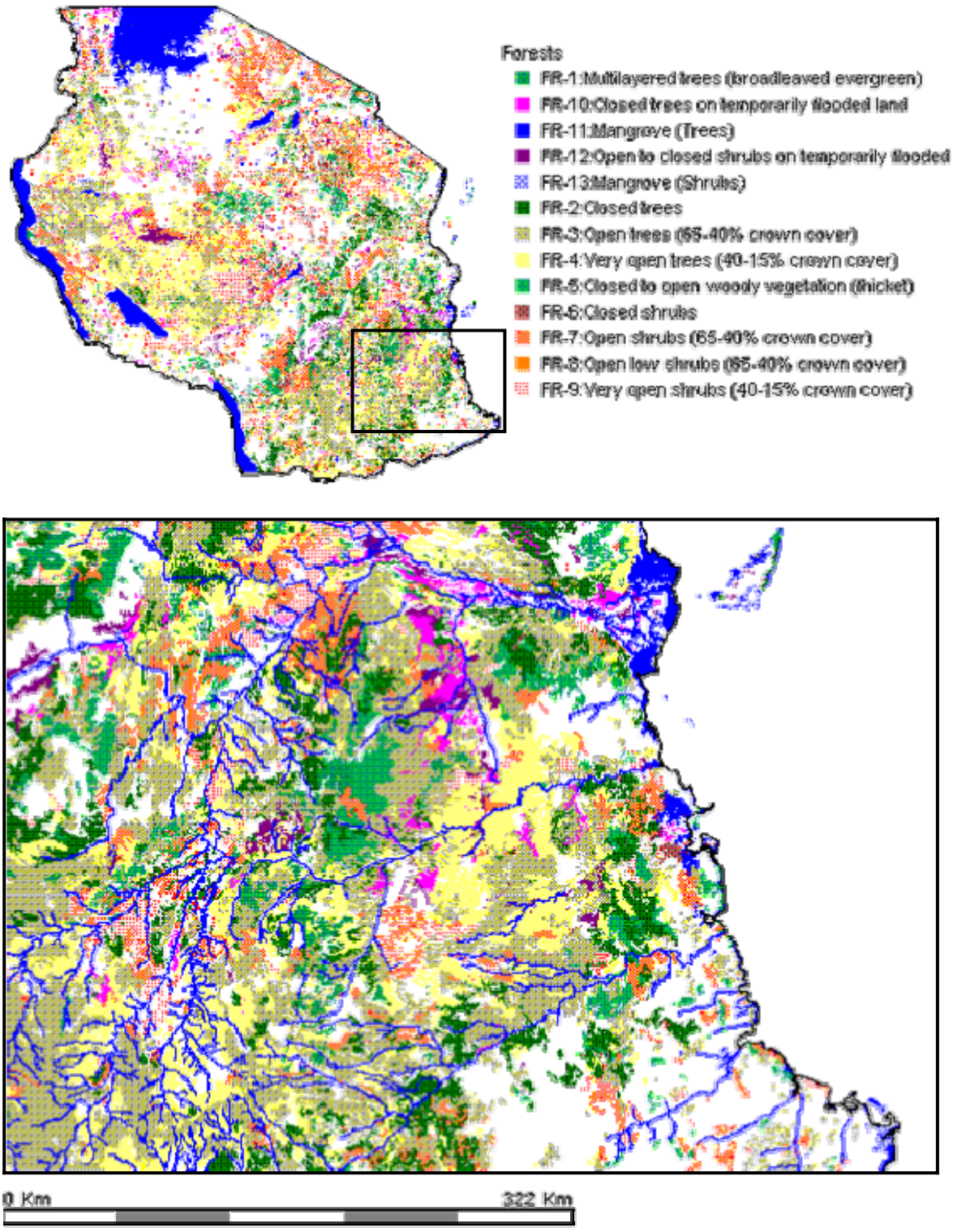
Forest inventories conducted in eleven priority districts during 2005 concluded that a total of 55.85 million m^3 of standing trees were available for harvesting from natural forests (Annex 4). During 2002/2003, 40% of all revenue came from natural forests, out of which 82% was collected in Coast, Dar es Salaam, Mwanza, Tabora and Lindi Regions (Mkeya, 2004). Most forest sector revenue collected in Dar es Salaam originates from fines and timber trade permits.

Credit: Antje Ahrends

Coastal forest, Namakutwa Forest Reserve

Figure 3

Map showing vegetative cover of southern Tanzania



Source: FAO Africover (http://www.africover.org).

Table 5

Type, use and legal status of forests and woodlands in Tanzania

Description		Area (000 ha)	Total area (000 ha)
Forest type	Montane forests	1 141	33 555
	Mangrove forests	115	
	Woodlands	32 299	
Forest Land Uses	Production forest area	23 810	33 555
	Protection forest area (mainly catchment areas)	9 745	
Legal Status	Forest Reserves	12 517	33 555
	Forests/woodlands in National Parks etc.	2 000	
	Non-reserved 'general' forest land	19 038	

Source: National Forest Policy (1998).

Deforestation rates and threats

Recent studies indicate that between 1970 and 1998, Tanzania lost around ten million hectares of forest land through uncontrolled clearing of forests mainly for agriculture and livestock expansion (FBD, 2001). Deforestation rates are estimated at 91 000-98 000 ha per annum[25] (Mariki *et al*., 2003; VPO, 2002). Degradation of forests and deforestation is taking place both in government Forest Reserves and in unreserved forests on public land (FBD, 2000, 2001). However, forests and woodlands are particularly over-exploited on public lands where population pressure for agricultural land and fuel wood has been relatively high (Milledge *et al.,* 2005c).

Credit: Simon Milledge/TRAFFIC

Looking through remnants of Mohoro Forest Reserve

Credit: Simon Milledge/TRAFFIC

Slash and burn in Ruhoi Forest Reserve

Threats currently facing forest management include ***illegal harvesting and trade in timber and other forest products, forest encroachment due to***

[25] However, some estimates are considerably higher, as much as 500 000 hectares annually (*Forest Policy, 1998*). FAO estimates deforestation at 140 000 hectares annually, although concerns have been expressed regarding the accuracy of using FAO data to meaningfully understand forest extent and degradation (Rainforest Foundation, 2005).

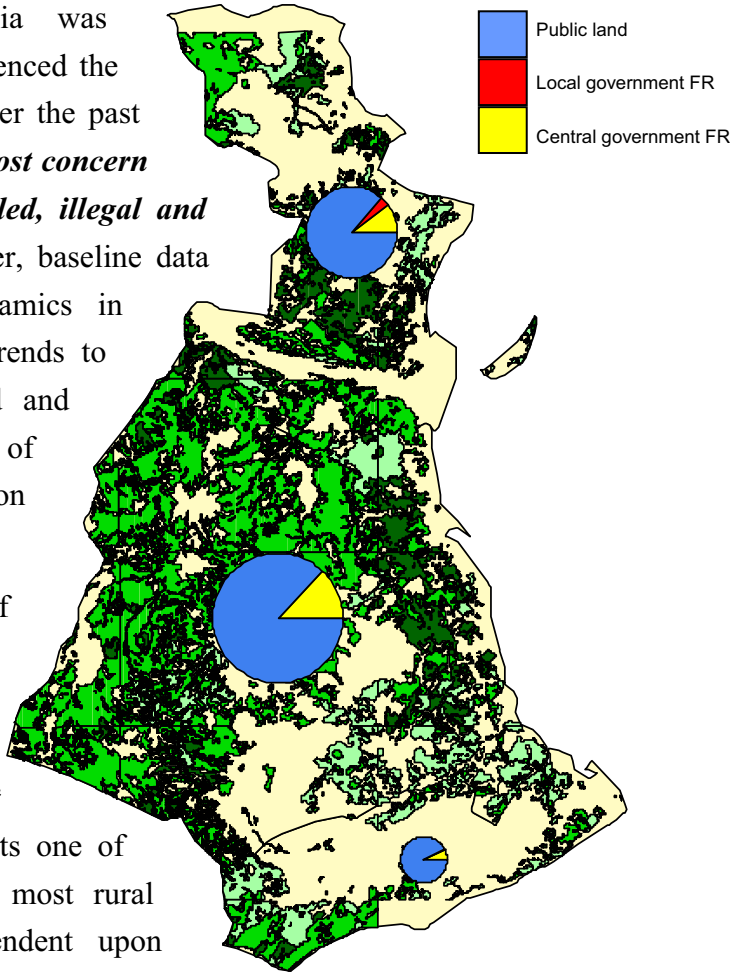
small-scale shifting agriculture, and the impacts of refugees, livestock, mining and fire (Dallu, 2006; Mbonde, 2005).

Recognition of the effects of deforestation was included in His Excellency Jakaya Kikwete's first speech as President of the United Republic of Tanzania when he proclaimed *"reckless harvesting of trees and uncontrolled forest fires have resulted in water resources drying up, rivers drying up, and biodiversity being put under great threat"* (Kikwete, 2005).

5.4 Southeast Tanzania – the study area

Figure 4

Forests in Coast, Lindi and Mtwara Regions



The main justification for focusing this study on southern Tanzania was because this region has experienced the greatest upsurge in logging over the past five years and is the ***area of most concern regarding levels of uncontrolled, illegal and unsustainable activity***. Further, baseline data exists for timber trade dynamics in southern Tanzania, enabling trends to be comparatively documented and assessed with a higher degree of reliability and precision (Milledge *et al.*, 2005c).

However, there are a range of other reasons for selecting south-east Tanzania for a case study. Firstly, from the ***national development perspective***, this area represents one of the poorest in Tanzania and most rural livelihoods are heavily dependent upon forest resources. Secondly, the region is undergoing infrastructural developments, including road construction and other initiatives for the so-called 'Mtwara Corridor' following completion of the Mkapa Bridge, bringing both development prospects and environmental risks.

From an environmental perspective, this area contains some of the largest ***remaining wild stands of miombo woodland*** in Africa, whilst the ***coastal forests are of national and international biodiversity importance*** (Burgess *et al.,* 2000). Southern Tanzania is

home to some of the largest areas of unprotected woodland on open (public) land in the country, whose management is largely dependent upon surrounding communities (Figure 4). Further, a recent UNEP/IISD review to identify regions where ***critical ecosystems services for human well-being are stressed*** revealed that Coast and Lindi were amongst the national priorities for immediate action (Table 6). The lack of ability to earn a livelihood and inadequate access to safe water applies to all regions in southern Tanzania, the latter closely related to increasing rates of forest loss (Wong *et al.,* 2005).

Table 6

Stressed ecosystem services and constituents of well-being in southern Tanzania

Ecosystem – poverty connection		Coast	Lindi	Mtwara	Ruvuma
Ecosystem service	Biodiversity	X	X		
	Food production	X	X	X	
	Water supply, purification, regulation				
	Fuel (energy)	X	X		
Constituent of well-being	Adequately nourished	X	X		
	Adequate and clean drinking water	X	X	X	X
	Energy	X	X		
	Earn a livelihood	X	X	X	X

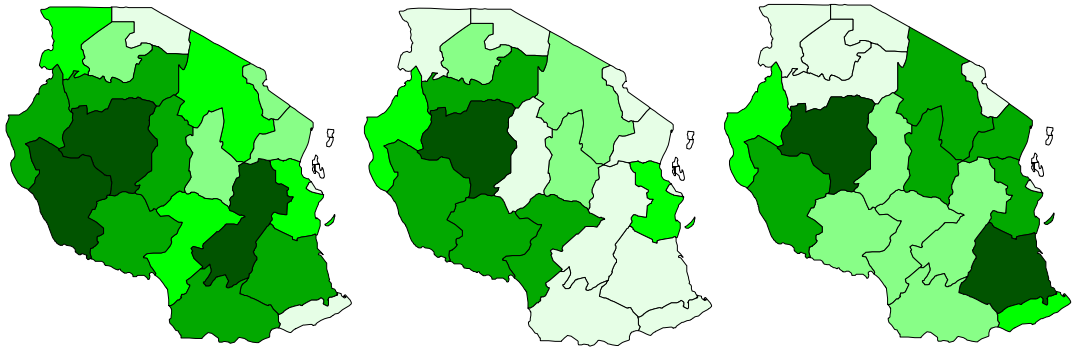
Source: UNEP/IISD (Wong *et al*., 2005).

Figure 5 highlights how the forests of south-east Tanzania can be regarded as having a relatively small area covered by local government forest reserves, but ***large areas of forest (especially Lindi Region) designated as public land***.

Figure 5

Maps illustrating regional distribution of forests under different ownership

(a) Central government **(b) Local government** **(c) Public forest**



Key: Darker shading represents higher values.

Forest inventories conducted in eleven priority districts during 2005 revealed the four districts with the ***highest densities of timber resources found in southern Tanzania***, namely Tunduru (12.2 m^3/ha), Kilwa (10.5 m^3/ha), Liwale (5.5 m^3/ha) and Rufiji (3.8 m^3/ha) Districts (Table 7; Annex 4). Accordingly, southern Tanzania has become increasingly important as a primary revenue source for FBD. Among the top four forest product revenue earners in the country during 2003/2004 were Rufiji (TZS 116.24 million, equivalent to USD 110 400), Kilwa (TZS 111.96 million, equivalent to USD 106 300) and Liwale (TZS 44.02 million, equivalent to USD 41 800) (discounting Mkuranga and Kisarawe which earn large revenues from forest products transported by road from many regions to Dar es Salaam).

Heavy logging, agricultural encroachment and other forest activities have taken a serious toll on the reserved forests. The recent FBD forest inventories concluded that most forests in Liwale and Tunduru Districts *"are degraded"* whilst those in Rufiji, Kilwa and Nachingwea Districts *"are heavily degraded."* A closer look at species composition of surveyed forests shows, as expected, a lower proportion of valuable Class I/II species in Rufiji District due to longer exposure to harvesting pressure.

Table 7

District forest inventory reports (hectares)

District	Area of district	Total forest area	Surveyed forest area	Total harvestable area	Number of harvestable stems	Volume of harvestable timber (m^3)
Rufiji	14 471 000	1 231 930	300 237	268 781	702 715	2 305 499
Kilwa	13 920 000	1 084 787	380 043	342 038	1 947 884	7 615 588
Liwale	36 084 000	1 434 942	996 420	855 838	4 471 687	13 460 373
Nachingwea	7 070 000	506 209	364 556	328 100	260 048	662 656
Tunduru	18 778 000	1 051 143	695 772	626 195	3 931 094	12 838 956
Total	**90 323 000**	**5 309 011**	**2 737 028**	**2 420 952**	**11 313 428**	**36 883 072**

Note: Confidence limits are not provided in the inventory reports.

Source: Malimbwi *et al.* (2005a,b,c,d,e).

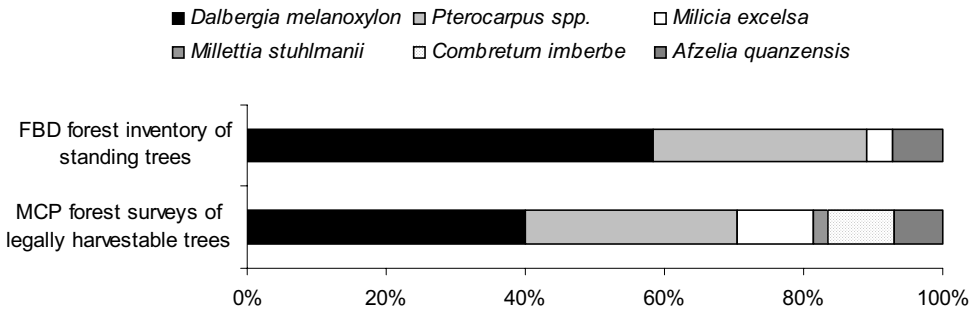
Recent independent forest surveys in Kilwa District underline the need for caution when interpreting these results. For example, a rapid standing stock assessment[26] was conducted by the Mpingo Conservation Project (MCP) during late 2004 (Ball *et al.*, 2006). It focussed on nine of the most commercially valuable species available: *Dalbergia melanoxylon, Swartzia madagascariensis, Pterocarpus* spp*., Milicia excelsa,*

[26] A total of 160 km of transects representing all major vegetation types were conducted, with Diameter at Breast Height (DBH) and Straight Length (SL) measurements estimated for all trees within ten metres of the transect line; detailed methodology is given in Ball *et al.* (2006).

Millettia stuhlmannii, Khaya anthotheca, Combretum imberbe, Afzelia quanzensis and *Bombax rhodognaphalon*. In terms of overall species composition, the MCP survey appeared to show a fairly close match to the above-mentioned FBD inventories (Figure 6; Annex 4).

Figure 6

Composition of selected species from two surveys in Kilwa District, 2005



Source: FBD and MCP forest surveys (Ball *et al.*, 2006; Malimbwi *et al.*, 2005a,b,c,d,e).

In terms of total harvestable volumes and average volume per tree estimations, however, the two surveys differed markedly (Table 8). Whilst some variation can be expected from different methodologies (e.g. FBD calculated total tree volume, whilst MCP calculated log volume, and FBD surveyed many species compared to just seven by MCP), there is clearly a ***need to treat the accuracy of the inventory results with some caution***.

Table 8

Comparison of FBD forest inventory report and MCP rapid stock assessment in Kilwa District

	FBD forest inventory report	MCP rapid stocks assessment
Total area extrapolated	342 km^2	13 000 km^2
Total number of harvestable trees	1 950 000	1 149 000
Number of species	Many	7
Total harvestable volume	7 600 000 m^3	963 000 m^3
Average volume per tree	3.9 m^3	1.8 m^3

Source: FBD and MCP forest surveys (Ball *et al.*, 2006; Malimbwi *et al.*, 2005a,b,c,d,e).

6 LOGGING AND TIMBER TRADE DYNAMICS IN SOUTHERN TANZANIA

6.1 Contemporary timber trade dynamics

6.1.1 Recent history of timber trade from southern Tanzania

The southern part of Tanzania has a distinguished place in history with respect to forestry, as the country's very first forest bureau was established by the German administration at Usimbe, Muhoro, near the Rufiji Delta in 1899 (EAP, 2005).

Trade in hardwoods from southern Tanzania also dates at least as far back to colonial times, with exports to the Far East and Europe through Mtwara, Lindi and Kilwa ports. During that time, *Dalbergia melanoxylon* was the principal species in trade, with missionaries buying logs in Songea, Nachingwea and Lindi Districts. Following independence, poor infrastructure in southern Tanzania, together with civil unrest in neighbouring Mozambique, pushed many people to migrate towards urban areas, especially Dar es Salaam. Population density remained low and forest regenerated quickly.

During the 1990s, heavy depletion of forest resources and increased Government intervention in places such as Tabora Region led timber merchants to start looking for alternative sources of hardwood. The miombo woodlands and coastal forests of southern Tanzania soon became targeted as awareness grew regarding the utilitarian uses of lesser known commercial timber species. At the same time, the export market for Tanzanian hardwoods was expanding, enticing more people to invest in timber processing and export (Figure 8). In August 2003, the opening of the Mkapa Bridge[27] over the Rufiji River greatly increased access to forests in southern Tanzania. Due to the relative vacuum of effective controls, timber trade became very profitable and many people entered the business mainly to export round wood to lucrative overseas markets.

Credit: Simon Milledge/TRAFFIC

Mkapa Bridge officially opened on 2nd August 2003

[27] At 970 metres, the Mkapa Bridge is the second longest bridge in Africa after the Nile Bridge in Egypt. It was funded by the Government of Tanzania, Kuwait Fund for Arab Economic Development, the Organisation of Petroleum Exporting Countries Fund for International Development and the Saudi Fund for Development. Construction of the Lindi-Dar es Salaam road was funded by Japan, the Kuwait government, OPEC and Saudi Arabia.

However, starting in 2003, considerable concern was raised by key stakeholders regarding the high levels of uncontrolled harvesting, trade and export activities, particularly in light of documention of lost revenues, forest degradation, governance shortfalls and disenfranchised local communities. As a result, a variety of management interventions were subsequently introduced (including total harvest and export bans[28]), to improve controls and equity (Milledge *et al.,* 2005b). In general, these interventions have had varying degrees of success, but generally speaking have been reactionary, and not strategic, in nature (see chapter 8.5.1). For example, following completion of forest inventories during a nationwide harvest/export ban, harvesting was again re-opened in September 2005 as a result of growing pressure from local communities and forthcoming parliamentary and presidential elections. Regrettably, this development took place *before* the completion of District Harvesting Plans.

The following chapters 6.1.2 and 6.1.3 provide an outline of recent timber trade dynamics, concentrating on the period 2003-2004 which portrays a more accurate reflection of *typical* timber trade dynamics than 2005-2006, which was affected by a range of trade restrictions. Chapter 6.2 provides an overview of forest product exports, followed by a summary of unsustainable harvesting indices in chapter 6.3.

6.1.2 Timber harvesting

Main sources of timber

Surveys conducted during this study in coastal forests between Dar es Salaam and south of the Rufiji River showed clearly that little harvesting of valuable timber trees occured within 200 km of the city. This was mainly due to the scarcity of targeted species both in terms of number and suitably-sized specimens. Figure 7 shows how the proportion of trees felled and used for timber as well as larger stump sizes[29], progressively increased moving southwards from Dar es Salaam.

While most timber logging occured in areas distant to Dar es Salaam and the main road, often in locations with difficult access, this was not the case when harvesting non-timber trees for the production of charcoal or poles. More than 80% of trees harvested within 20 km of Dar es Salaam (Pande Game Reserve, Vikindu, Pugu and Ruvu South Forest Reserves) were used for non-timber purposes such as house contruction (poles) or as fuel sources (charcoal) (Figure 7).

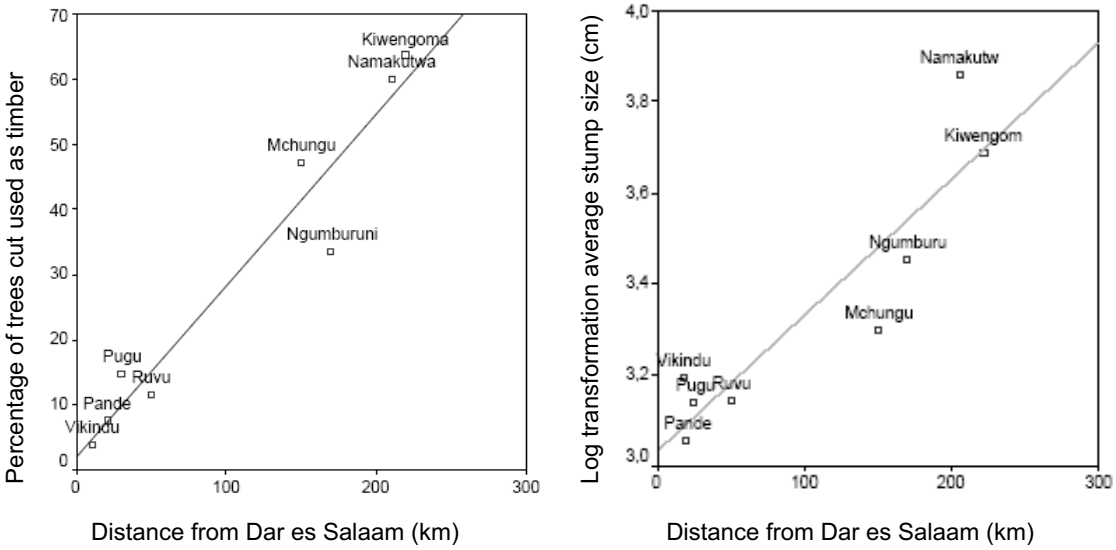
[28] Timber related bans are not an entirely new phenomenon in Tanzania, however. For example, a nationwide ban on harvesting in catchment areas, river banks and valleys as well as hardwood exports was imposed in June 1993 following pledges to preserve natural forests at the Earth Summit in Rio de Janeiro (Daily News, June 12th, 1993).

[29] The average stump size and the number of timber trees felled are a linear function of distance to Dar es Salaam – with an explanatory power greater than 80% (R^2=0.94 and 0.83 respectively).

Figure 7

Patterns in tree harvesting moving south from Dar es Salaam

(a) Proportion of harvested trees used for timber **(b) Average stump size**



Rufiji District accounted for 70% of all official harvests in the study area by volume in 2003, followed by Kilwa District (18%). The following sections outline the main harvest areas for these two districts; further information on other districts may be found in Milledge *et al.* (2005a).

Rufiji District

According to harvest licences issued in Rufiji District between January 2003 and October 2004, a total of 76 different locations were listed, of which 75% by volume was issued for the following five harvest areas: Ruhoi, Nyamwage, Mbwara, Kichi and Kiwanga. This finding closely matched responses from stakeholders interviewed during 2004 (Milledge *et al.* 2005a). After harvesting, logs were stored at a minimum of 36 locations (village landing sites), with almost half by volume recorded in just five locations during 2004 (Table 9).

The majority of logs recorded at village landing sites were situated south of the Rufiji River, especially the areas surrounding Nyamwage, Mbwara and Nambunju (Figure 9). Large quantities of logs were also located just north of the river between Mwaseni and Ndundunyikanza. In addition, relatively large quantities of logs were found at sawmill premises in Utete (and to a lesser extent, Ikwiriri).

Table 9

Volume (m^3) of logs inspected at major (>100 m^3) village landing sites, Rufiji District, 2004

Location	LSD	WSD	Total	Location	LSD	WSD	Total
Nyamwage	402.19	266.06	668.25	Kimbuga	164.93	20.00	184.93
Ndundunyikanza	590.90	60.00	650.90	Msona	151.52	30.00	181.52
Utete	437.81	166.35	604.16	Kiwanga	64.69	102.54	167.23
Mbwara	518.13	6.85	524.98	Ikwiriri	153.91	0.00	153.91
Mwaseni	334.32	75.52	409.84	Mkongo	144.10	0.00	144.10
Ngorongo B	248.87	20.00	268.87	Rungungu	126.40	0.00	126.40
Kibiti	201.98	52.42	254.40	Kikale	105.25	0.00	105.25
Kipo	227.92	0.00	227.92	Other locations	791.90	168.88	960.78
Chumbi	108.29	96.54	204.83	**Total**			**5 838.27**

Source: MNRT task force analysis of logs at landing sites, 2004.

Note: LSD = Lacking Supporting Documentation; WSD = With Supporting Documentation.

Kilwa District

Interviews in Kilwa revealed that Mavuji, Kandawale, Nainokwe, Njinjo, Nanjirinji, Likawage, Mbate and Migerere were the main harvest areas (Milledge *et al.*, 2005a). This was supported, and elaborated, by analysis of 40 locations listed on harvest licences issued in Kilwa District (Table 10). Analysis of logs held at landing sites revealed ten different locations in total, with the majority found at the following locations: Nainokwe, Mingumbi, Nangurukuru, Mandawa and Hoteli Tatu (Figure 10).

Table 10

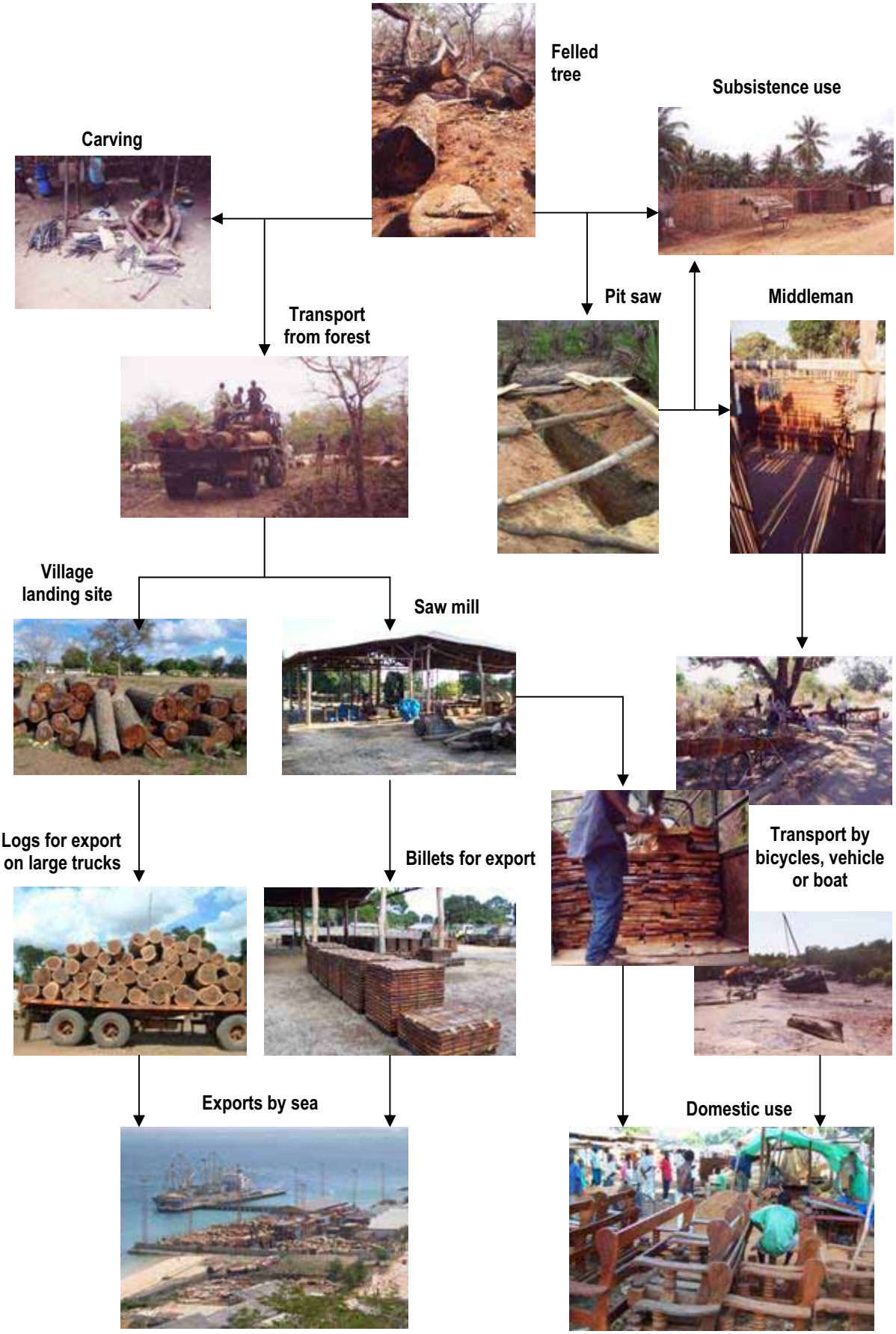
Major timber harvesting locations according to harvest licences, Kilwa District

Harvest area	Jan-Dec 2003	Jan-Oct 2004	Total
Likawage	854.75	327.43	1 182.18
Nainokwe	805.00	350.00	1 155.00
Nambondo	250.00	225.00	475.00
Kiwawa	391.75	50.00	441.75
Mavuji	282.50	40.00	322.50
Njinjo	75.00	170.00	245.00
Kandawale	180.00	50.00	230.00
Nanjirinji	71.25	124.17	195.42
Liwiti	170.00	20.00	190.00
Mitole	171.50	0.00	171.50

Source: Kilwa District timber harvest licences, January 2003 to October 2004

Figure 8

Illustration of main trade dynamics for timber harvested in southern Tanzania



Credits: Simon Milledge/TRAFFIC, Andrew Perkin (bottom left)

Figure 9

Relative harvesting intensity in Rufiji District village landing sites, 2004

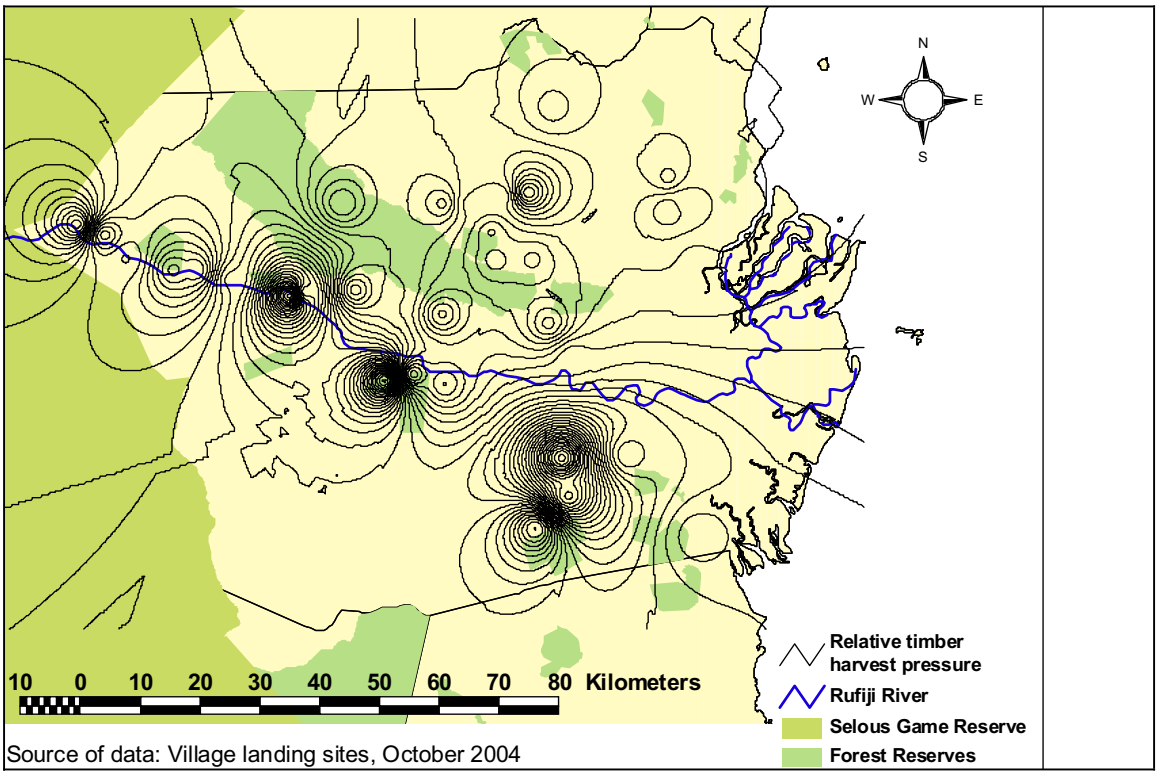
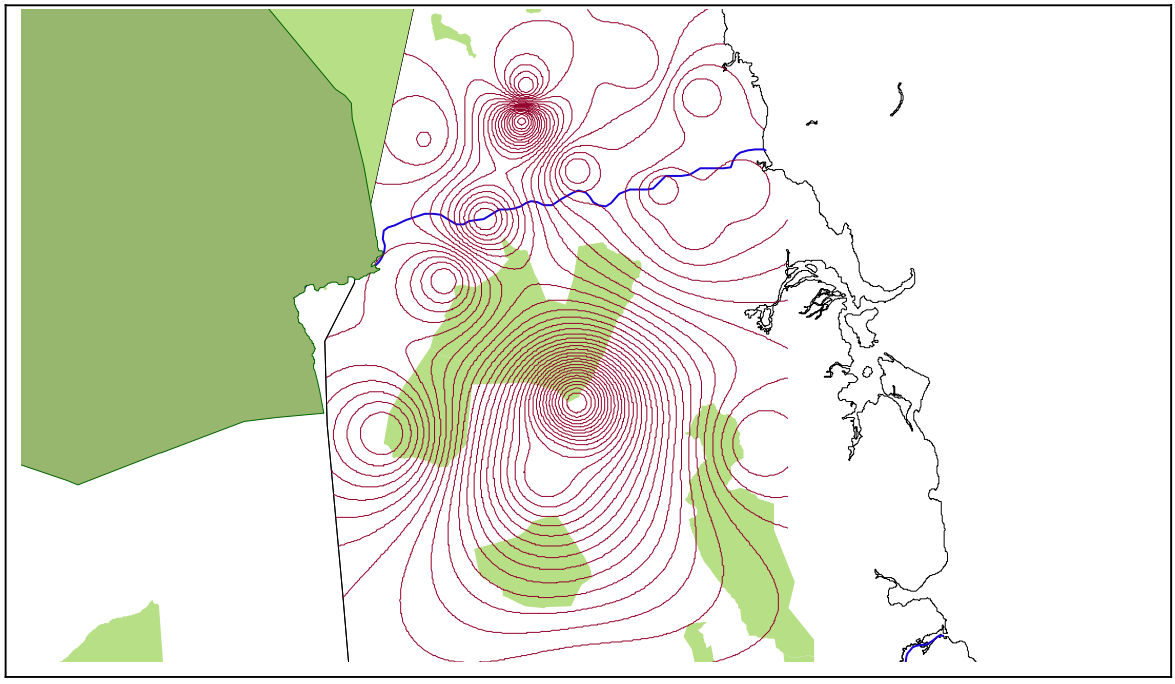


Figure 10

Relative harvest intensity Kilwa District



Source: Kilwa District harvest licences, July to December 2004

Timber products traded

Analysis of transit passes issued in three districts (representative of the study area) between January and October 2004 showed that round wood constituted 80% of all timber products, and 14% as sawn wood (Table 11). The remaining six per cent composed of strips, pallets, off-cuts, sleepers, slabs and billets from Rufiji District. Further, the proportion of round wood transported declined moving southwards, with the highest proportion in Rufiji District and lowest in Mtwara District (Table 11).

Table 11

Volumes (m^3) timber products specified on transit passes, January-October 2004

District	Round wood (RW)[30]	Sawn wood (SW)	Other products	Total	SW : RW
Rufiji	12 157.51	1 451.84	1 221.89	14 831.23	1 : 8.4
Kilwa	1 990.50	364.20	0.00	2 354.70	1 : 5.5
Mtwara	1 610.55	966.28	0.00	2 576.83	1 : 1.7
Total	**15 758.56**	**2 782.31**	**1 221.89**	**19 762.76**	**1 : 5.7**

Source: Transit passes, January to October 2004.

A nationwide harvest ban between 1st October 2004 and 1st September 2005 changed trade dynamics, and Table 11 only gives an indication of timber products traded before that period. The quantities of charcoal and furniture traded from southern Tanzania, especially Rufiji District, have increased markedly in recent times following greater restrictions on round and sawn wood.

Credit: Antje Ahrends

Round wood dominated timber trade

Volumes of wood products harvested

Official timber harvest volumes

Harvest licences and transit passes are the two primary sources of official data for calculating harvest volumes, although they must be regarded as a minimum estimate since they do not consider illegal trade (see below). However, official data did provide a reasonably accurate picture of trends and seasonality. During 2003, harvest licences totaling almost 21 000 m^3 were issued from seven districts in the study area, with Rufiji

[30] Transit passes for products made from *Dalbergia melaxolyon* included several other descriptions and units in addition to the 191 m^3 logs that are included in Table 11. These included 229 bags processed blocks, seven cubic metres of firewood, and carvings/strips comprising 14 415 'pieces', 41.97 m^3, 645 kg and five 'sets'.

District accounting for 70% and Kilwa District a further 18% (Table 12). Peak volumes occurred between March and June, and again in November.

Table 12

Total volume of timber (m^3) issued on harvest licences from study area, 2003

Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Rufiji	677	1 063	1 518	1 384	1 746	1 609	1 537	959	789	1 003	1 185	1 217	14 687
Kilwa	142	155	177	236	347	140	279	298	568	543	765	83	3 733
Lindi	67	94	108	63	26	100	15	27	189	54	137		880
Liwale	38	38	74	51	100	138	85	33	74	198	12		841
Masasi							16	59	126	33	264		498
Tandahimba		22	20	20	22	20				30			134
Mtwara	26	13			52				17	10	1		119
Total	**950**	**1 385**	**1 897**	**1 754**	**2 293**	**2 007**	**1 932**	**1 376**	**1 763**	**1 871**	**2 364**	**1 300**	**20 892**

Source: District harvest licences, 2003 (figures rounded up to nearest cubic metre).

A second source of official information, transit passes, was analyzed from Rufiji, Kilwa and Mtwara Districts for the same period between January and October 2004. As expected, the majority (75%) of the transit passes were in Rufiji District. Further, transit passes exhibited a similar seasonal pattern to harvest licences, peaking between May and July when very large volumes of round wood were harvested and moved (Table 13).

Table 13

Volumes of timber (m^3) issued on transit passes, January to October 2004

District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Kilwa	713.9	278.7	206.4	105.0	115.5	78.7	552.1	45.3	30.5	228.8	2 354.9
Mtwara	720.5	21.8	no data	134.5	490.9	983.6	27.2	no data	140.5	58.0	2 577.0
Rufiji	1 041.6	712.0	2 071.3	1 750.2	3 034.8	4 083.9	1 612.2	81.5	250.3	211.2	14 849.0
Total	**2 476.0**	**1 012.5**	**2 277.7**	**1 989.7**	**3 641.2**	**5 146.2**	**2 191.5**	**126.8**	**421.3**	**498.0**	**19 780.9**

Source: District transit passes, 2004.

Actual timber trade volumes

An estimate of the *actual* volumes of logs harvested from the study area was calculated by comparing data detailing logs physically counted at landing sites with other sources of official data. Based upon field inspections of landing sites, a minimum estimate of total log volume was 11 200 m^3 (Table 14).

To fully understand the relevance of logs counted at landing sites, it is important to appreciate two facts. Firstly, according to information derived from supporting harvest licences, direct field observations and interviews, these logs were harvested in approximately a two-month period, i.e. during July and August 2004. Secondly, villagers' reports, observations from an aerial survey and field observations during 2005 support the likelihood that an equivalent amount of logs still remained in the forests, yet to be moved and consolidated at the various landing sites scattered throughout the study area. Thus, it is likely that twice the quantity taken to landing sites was actually harvested during July and August 2004 (i.e. 22 400 m^3).

Table 14

Volumes (m^3) of logs recorded at landing sites in each district

District	Minimum estimated volume
Rufiji	5 838.27
Kilwa	1 582.37
Lindi	43.38
Nachingwea	1 311.96
Masasi	287.79
Mtwara	420.56
Tunduru	1 678.46
Total	**11 162.79**

Source: Ministry of Natural Resources and Tourism.

Credit: Simon Milledge/TRAFFIC

Swartzia madagascariensis logs at Nainokwe, Nachingwea

However, this estimate does not include trees felled for sawn wood and other products. As mentioned above, analysis of transit passes issued during January and October 2004 from a sample of districts (Rufiji, Kilwa and Mtwara) revealed that round wood constituted 80% of all timber products issued on transit passes (Table 11). Thus, the total volume of timber harvested and either left in the forest, taken to villages, or moved on by road, was reliably estimated at 28 000 m^3. Finally, a proportion of trees were felled and removed from the forests, mostly by bicycle, later to be shipped from small ports along the coastline between Rufiji River and Kilwa Masoko. Research during April 2004 showed that the estimated volume

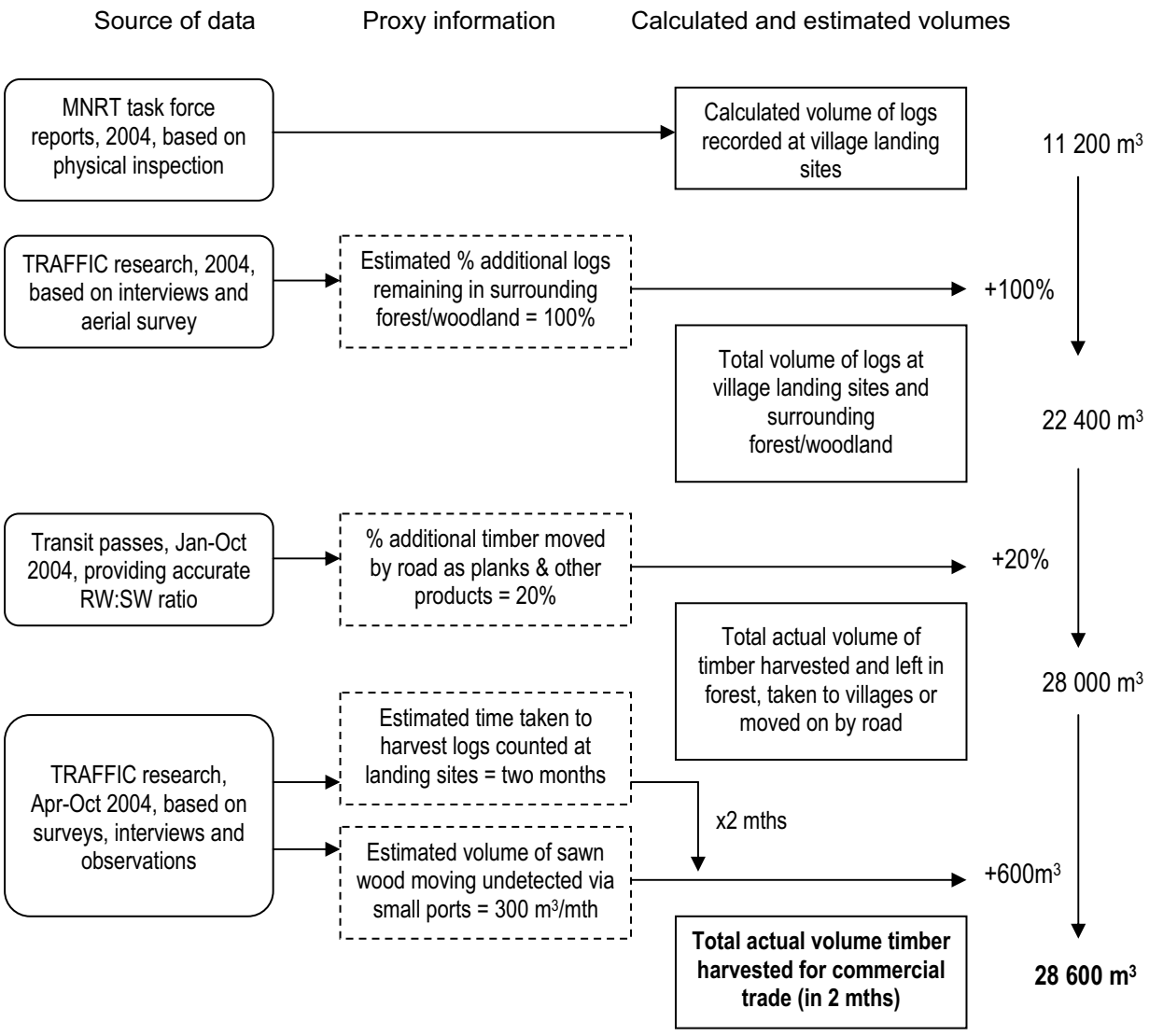
Credit: Simon Milledge/TRAFFIC

Logs awaiting collection in southern Tanzanian village

of sawn wood moving undetected via these small ports was 300 m^3 per month, equivalent to 600 m^3 over the two-month period. The total volume of timber actually harvested for commercial[31] trade during these two months was thus estimated at 28 600 m^3 (Figure 11). Further calculations (see chapter 8.2.2) highlight how up to 96% of timber harvesting was illegal during mid-2004. Similar levels of illegality were likely to have occurred throughout 2003 when harvesting was rampant in the study area. Thus, whilst official records showed around 21 000 m^3 of timber was harvested from the study area during 2003 (worth USD 6.3 million freight-on-board, FOB), in reality over 500 000 m^3 (worth around USD 150 million FOB) was likely to have been harvested for commercial purposes with the addition of unrecorded, illegal felling.

Figure 11

Estimations of *actual* timber harvest rates in Kilwa and Rufiji Districts during mid-2004 using *official* and *observed* (counted) records



[31] This estimate does not include timber harvested for subsistence use.

Species of timber traded

Due to large-scale irregular harvesting, fraud and misclassification of timber consignments (see chapter 8), an accurate assessment of species composition could only be obtained by physical examination. One such assessment was possible for round wood during inspections of village landing sites throughout Coast, Lindi and Mtwara Regions in 2004. Logs from 13 timber species were recorded, with over 80% constituting just three species, *Millettia stuhlmannii, Baphia kirkii* and *Swartzia madagascariensis* (Table 15). Species composition varied within different districts (Milledge *et al.*, 2005; Table 15).

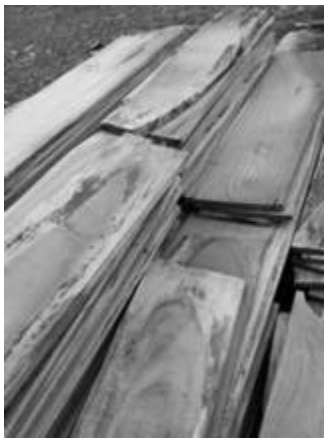
Table 15

Volumes (m3) and species of logs recorded at landing sites, October 2004

Scientific Name	Rufiji	Tunduru	Kilwa	Nachingwea	Mtwara	Masasi	Lindi	Total
Millettia stuhlmannii	1 468.40	330.19	509.47	1 222.78	420.56	224.16		4 175.56
Baphia kirkii	2 539.17							2 539.17
Swartzia madagascariensis	22.26	1 330.66	978.33			13.35	43.38	2 387.98
Pericopsis angolensis	560.39							560.39
Kiswahili 'Mgama'	503.32							503.32
Erythrophleum africanum	469.57							469.57
Afzelia quanzensis	142.08			21.02				163.10
Dalbergia melanoxylon			48.59	50.72				99.31
Combretum imberbe	41.81		45.99					87.79
Xanthoxylem cherybelum	70.60			13.50				84.10
Pterocarpus angolensis	4.64	17.61						22.25
Julbernardia globiflora	16.04							16.04
Hagenia abyssinica				3.93				3.93
Total	**5 838.28**	**1 678.46**	**1 582.38**	**1 311.96**	**420.56**	**237.51**	**43.38**	**11 112.52**

Source: Ministry of Natural Resources and Tourism, 2004.

Whilst timber trade since 2003 has mostly targeted round wood for export, the above assessment omits those tree species harvested for sawn wood and other timber products. For example, *Pterocarpus angolensis* and *Afzelia quanzensis* were targeted in most of the study area for sawn wood, with the exception of Rufiji District where scarcity of these species has led harvesters to target *Julbernardia globiflora*. Review of harvest licences issued throughout south-east Tanzania during 2003 revealed several additional timber species (Table 16).



Credit: Simon Milledge/TRAFFIC

Julbernardia globiflora planks

Coastal forest surveys conducted in ten forests around Dar es Salaam and Rufiji counted a total of 79 species harvested at a size above 15cm DBH, including 27 with commercial timber qualitites (dominated by *Baphia kirkii, Millettia stuhlmannii* and *Pericorpsis angolensis,* and to a lesser extent *Swartzia madagascariensis* for logs, and *Afzelia quanzensis, Albizia versicolor, Hymenaea verrucosa, Julbernardia globiflora, Khaya anthotheca, Milicia excelsa, Pterocarpus angolensis* and *Pterocarpus stolzii* for timber). The remainder were used for charcoal production and local construction (e.g. *Scorodophloeos fischeri* and *Manilkara sulcata*).

Table 16

Volumes of timber (m3) issued on harvest licences[32], 2003

Scientific name	Kilwa	Lindi	Liwale	Masasi	Mtwara	Rufiji	Total
Hymenaea verrucosa	73.49	0.00	0.00	0.00	0.00	4 300.46	4 373.95
Combretum imberbe	242.00	0.00	0.00	0.00	0.00	3 626.00	3 868.00
Pericopsis angolensis	0.00	0.00	0.00	0.00	0.00	3 262.56	3 262.56
Swartzia madagascariensis	1 871.50	502.56	70.00	0.00	97.50	273.00	2 814.56
Millettia stuhlmannii	899.50	7.50	0.00	404.50	15.00	984.50	2 311.00
Pterocarpus angolensis	265.01	66.95	553.35	0.00	0.00	10.00	895.31
Erythrophleum africanum	0.00	0.00	0.00	0.00	0.00	848.15	848.15
Trichilia emetica	6.00	0.00	0.00	0.00	0.00	519.50	525.50
Baphia kirkii	0.00	0.00	0.00	0.00	0.00	494.34	494.34
Afzelia quanzensis	87.00	7.20	187.25	82.55	0.50	27.00	391.50
Milicia excelsa	0.00	237.28	0.00	0.00	0.00	0.00	237.28
Julbernardia globiflora	3.00	5.80	29.00	1.00	0.00	185.12	223.92
Dalbergia melanoxylon	115.00	20.00	0.00	1.00	3.50	6.42	145.92
Brachystegia spp.	50.00	0.00	0.00	0.00	0.00	36.00	86.00
Amlyogonocarpus obtusangulus	0.00	0.00	0.00	0.00	0.00	49.00	49.00
Bombax rhodognaphalon	10.00	30.35	0.00	0.00	0.00	0.00	40.35
Albizia versicolor	27.00	0.00	0.00	0.00	0.00	0.00	27.00
Khaya anthotheca	20.00	0.00	0.00	0.00	0.00	7.00	27.00
Manilkara mochisia	0.00	0.00	0.00	0.00	0.00	20.00	20.00
Albizia gummifera	12.00	0.00	0.00	0.00	0.00	0.00	12.00
Other	49.00	0.00	0.00	9.00	0.00	37.00	95.00
Total	**3 730.50**	**877.64**	**839.60**	**498.05**	**116.50**	**14 686.05**	**20 748.34**

Source: District harvest licences, 2003.

[32] For comparison, the most exploited timber species in Mozambique are *Pterocarpus angolensis, Afzelia quanzensis, Androstachys jonsonii, Millettia stuhlmannii, Swartzia madagascariensis, Combretum imberbe* and *Dalbergia melanoxylon* (LHA, 2005).

6.1.3 Domestic trade routes and markets

Five modes of transport were employed to move timber products – by foot, bicycle, vehicle, boat or airplane. All timber products underwent what may be termed as 'double-handling', with the logs initially transported from the forest to intermediary landing sites or ports; and subsequently moved from the landing site to destination (e.g. sawmill, container terminal, port of exit, retail outlet, etc.). In the case of sawn wood, the first stage of transport was commonly undertaken on foot or bicycle, whilst tractors and 7-12 t trucks (carrying around twenty logs each journey) were used almost exclusively to move round wood from forest to village landing sites.

Vehicles (mostly semi-trailers and full trailers) or boats of various sizes were used to transport sawn and round wood to final destinations prior to sale, further processing or export. Official statistics showed that 80% of timber products moved by road from Rufiji, Kilwa and Mtwara Districts during 2004 (Table 17). However, preference for sea transport was slightly higher for sawn wood than round wood, reportedly to evade royalty payments as well as prevent damage to sawn wood during road transport.

Table 17

Volumes (m^3) timber products transported by land and sea from Rufiji, Mtwara and Kilwa Districts

Mode of transport	Round wood	Sawn wood	Total
Land	12 645.3	2186.8	14 832.1
Sea	2 113.3	595.5	3 708.8
Total	**15 758.6**	**2782.3**	**18 540.9**

Source: Transit passes, January to October 2004.

Trade routes for round wood

Three primary trade routes existed for round wood sourced from south of the Rufiji River during 2003-2004. The first involved logs transported by large trucks, normally a semi-trailer, from landing sites in northern Kilwa District, parts of Liwale District and southern Rufiji District (e.g. Nyamwage, Mbwara, Utete and Kiwanga) via Mkapa Bridge all the way to Dar es Salaam.

The second route involved logs sourced from landing sites in central and southern Kilwa District (e.g. Mbate, Nainokwe, Kichonda, Hoteli Tatu, Pacha Tano and Mavuji), and taken to Kilwa Masoko port for shipment to Dar es Salaam. One slight exception involved *Dalbergia melanxolyon*, which was transported by road from either Mavuji or Migerere landing sites (Kilwa District) to Ikwiriri (Rufiji District) before the onward journey to Dar es Salaam.

A third major circuit funneled logs sourced from Masasi, Lindi, Nachingwea, Ruangwa, Tunduru and Liwale Districts through Mtwara port. Indeed, transit passes issued from Mtwara Region between January and October 2004 showed that all round wood officially leaving the region was shipped by sea, of which 67% originated from within Mtwara (mostly Masasi District), 21% from Lindi District and 11% from Nachingwea and Ruangwa Districts. Such shipments were destined for Dar es Salaam or overseas. Again, a slightly different route existed exclusively for *Dalbergia melanxolyon*, which was processed in Lindi before being shipped from Mtwara port.

Trade routes for sawn wood

In the case of sawn timber, large consignments followed similar routes to those of round wood described above. In addition, a number of smaller vehicles carrying sawn wood occasionally chose to travel by road from distant areas in Kilwa, Nachingwea and Liwale all the way to Dar es Salaam. Additional trade routes for sawn wood involved marine transport from Lindi port (to Zanzibar, Tanga and Mombasa) and other informal ports. The majority of sawn wood transported to Zanzibar was moved through informal ports that lie between the Rufiji delta and Mtwara port, including Kilwa Kivinje, Ndundutawa, Matapatapa, Pande, Lushungi and Mtunda. Approximately 90% of the timber transported through these ports was illegally sourced.

Credit: Antje Ahrends

Dhows used for transporting planks

Timber transport through informal ports

Approximately 14 traditional boats (dhows with engines) were used to transport timber products from informal ports during 2004. Most of these boats originated from Zanzibar, with smaller numbers coming from Mafia Island and Dar es Salaam. The main timber products transported were sawn timber, charcoal, furniture, window/door frames and mangrove poles. Each boat carried up to 1700 planks measuring seven feet in length plus fifty scores of poles, with an estimated 800 m^3 transported monthly from all ports during 2005, an increase of 200 m^3 per month in 2004.

The main species used for planks included *Julbernardia globiflora*, *Afzelia quanzensis*, *Pterocarpus angolensis*, *Bombax rhodognaphalon*, *Afzelia quanzensis* and *Milicia excelsa*. With the exception of Kilwa Kivinje, whose planks went to Mafia Island, Dar es Salaam and Bagamoyo, between 90 and 100% of planks from other informal ports were destined for Zanzibar. Upon return to mainland, shipped commercial goods included kerosine, sugar, garments and electronics.

Timber markets

Dar es Salaam was (and remains) the primary destination for timber products from southern Tanzania, including all round and sawn wood issued on transit passes from Rufiji District between January and October 2004. As far south as Mtwara Region, Dar es Salaam remained the destination for all round wood issued on transit passes during the same period, 87% of all sawn wood, and all processed *Dalbergia melanoxylon* for export. Dar es Salaam was also a major destination for many other wood products to be sold at domestic and export markets, including furniture, poles, off-cuts and charcoal. Other local urban markets included Lindi, Mtwara and Songea towns.

Further south, some wood products were transported directly to Zanzibar by sea rather than via Dar es Salaam. Most stakeholders interviewed in Kilwa and Lindi Districts mentioned the existence of a significant market in Zanzibar, mainly for planks and mangrove poles. According to official statistics (transit passes), around four per cent of sawn wood moved from Mtwara Region was shipped to Zanzibar. It is evident that Zanzibar has increasingly become a staging post for shipping timber products from mainland Tanzania (and reportedly Mozambique) to overseas destinations. Harmonisation of export policies is required to avoid trade/export restrictions from mainland Tanzanian being undermined in Zanzibar, and *vice versa*.

In the case of carvings made from *Dalbergia melanoxylon*, Dar es Salaam received almost all those transported from Rufiji and Kilwa Districts, according to transit passes issued between January and October 2004. Carvings from Mtwara Region showed a greater diversity in market, however, with 91% destined in approximately equal proportions to Dar es Salaam and Arusha, where a major tourist market exists.

6.2 Overview of forest product exports

6.2.1 Volumes of forestry product exports

Annex 5 outlines timber product exports between 2002/2003 and 2004/2005. This official data should be treated as an absolute minimum, however, with significant quantities of fraudulent exports occurring in the timber industry. For example, detailed analysis of shipping records for a major maritime transport company revealed that out of 639 containers containing timber products and shipped in the first 27 weeks of 2005, 226 (35%) were incorrectly classified.

The composition of more recent timber exports since FBD strengthened data monitoring is shown in Table 18. Exports were dominated by a range of hard and soft wood products including logs, sawn wood, billets, chips and manufactured products. A total of TZS 94.8 million (USD 83 200) was realised by FBD from exports of timber products between July and December 2005, with large quantities deriving from auction

of Teak *Tectona grandis* from plantations. Round wood and semi processed timber accounted for over three-quarters by value, TZS 74 .4 million (USD 65 300) (Figure 12).

Table 18

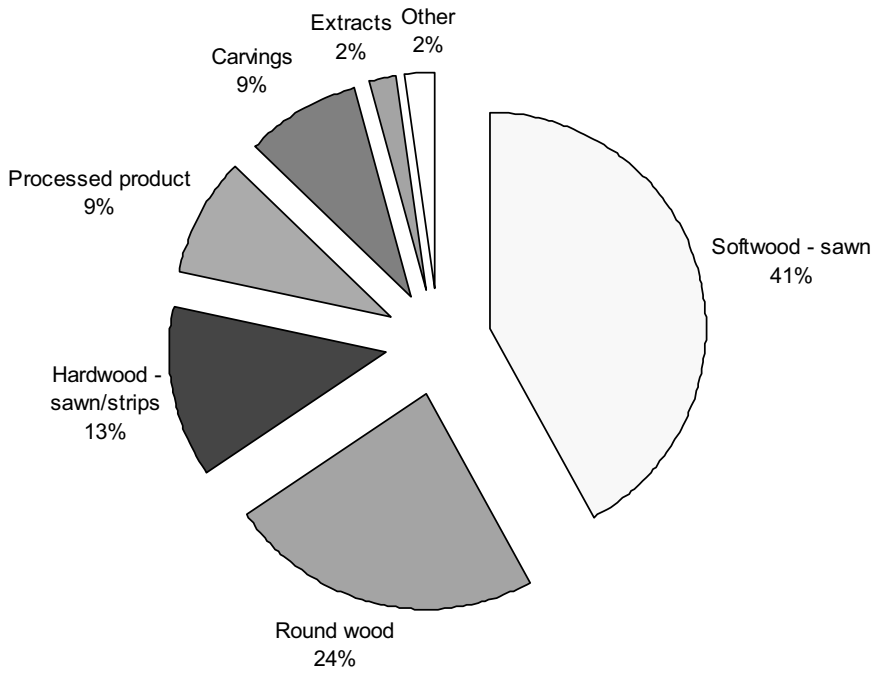
Timber exports from Tanzania, July 2005 to January 2006

Product	Species	Quantity	Units	Primary destinations
Logs	*Swartzia madagascariensis*	846.73	m^3	China (100%)
	Tectona grandis	8 930.30		UAE (99%) and India
Sawn wood, billets and chips	Various hardwoods	4 282.39	m^3	China (76%), Taiwan (7%), UAE (6%), Thailand (3%)
	Softwood sawn timber	19 671.49	m^3	UAE (76%), South Africa (8%)
	Sandalwood	116.51	tons	India (100%)
Dalbergia melanoxylon carvings and other finished products		10 310.29	kgs	India, USA, UK, China, Germany, Italy, Kenya, South Africa (31 countries in total)
		77.05	m^3	
		5 513.00	pcs	

Source: Forestry and Beekeeping Division, 2006.

Figure 12

Timber product exports by value, July to December 2005



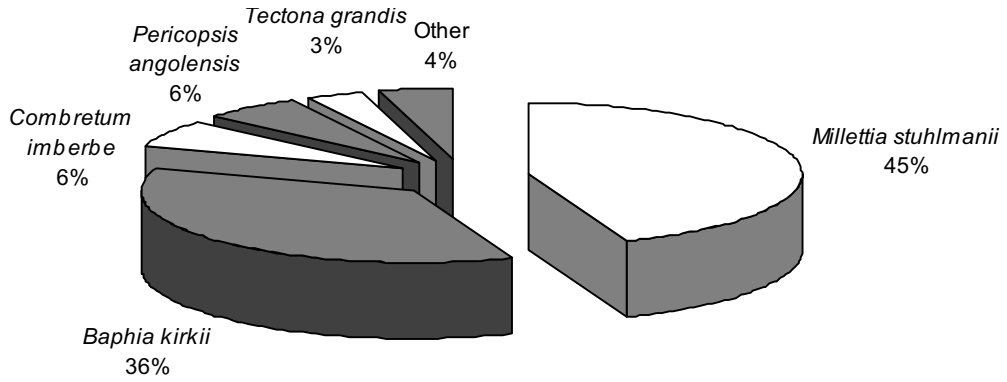
Source: FBD export records, 2005.

6.2.2 Species of timber exported

According to official FBD statistics, over four-fifths of hardwood sawn timber exported between July 2005 and January 2006 comprised just two species, *Millettia stuhlmannii* and *Baphia kirkii* (Figure 13).

Figure 13

Exports of hardwood sawn timber, June 2005 to January 2006



Source: Forestry and Beekeeping Division, 2006.

For comparison, a very similar species composition was evident in non-round wood products allowed for export in late 2005 which were subjected to physical inspections (although permits were subsequently revoked) – 35% *Millettia stuhlmannii*, 29% *Baphia kirkii* and 23% *Combretum imberbe* – indicating that the July 2005 - January 2006 official export statistics were reasonably accurate.

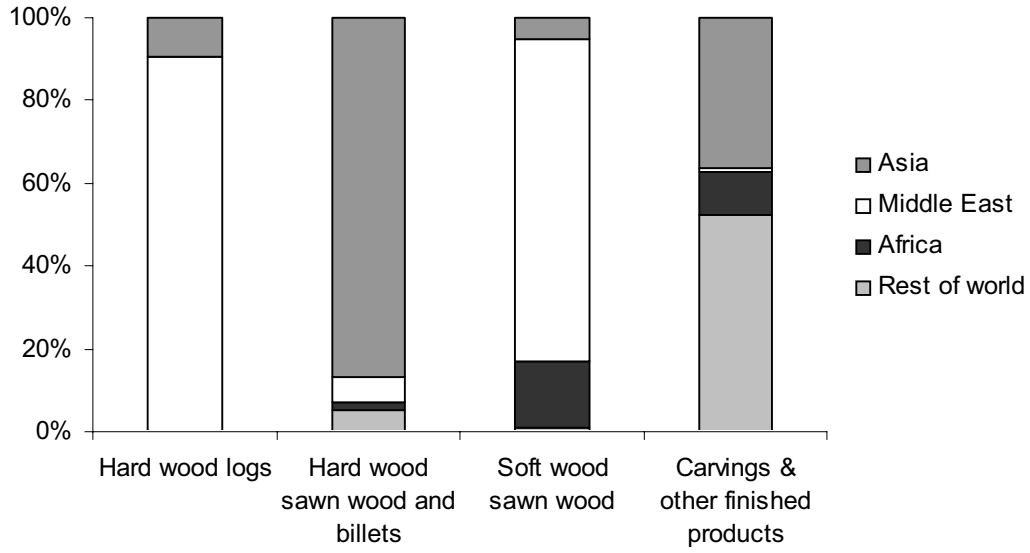
6.2.3 Overseas markets

Current export markets for timber from Tanzania are markedly different from the situation in the early 1980s where 82% of sawn hardwood exports were destined for Western Europe, 15% for Africa and three per cent to the Middle East (Moyo, 1985). In contrast, destinations in Asia and Middle East are currently the main importers of unprocessed and semi-processed timber products (Figure 14).

China has rapidly emerged as the fastest growing importer of hardwoods from Tanzania, accounting for all indigenous hardwood logs and three-quarters of processed hardwoods (sawn wood and billets) between July 2005 and January 2006 (Table 18). Statistics supplied by two of the five major shipping companies operating in Tanzania also indicated that the highest proportion (52-66%) of containers containing timber products during 2005 were destined for China (Figure 15).

Figure 14

Proportional destination of different timber product exports from Tanzania,

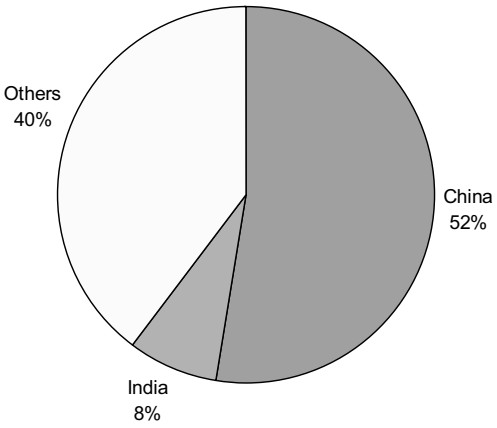


Source: Forestry and Beekeeping Division, 2006.

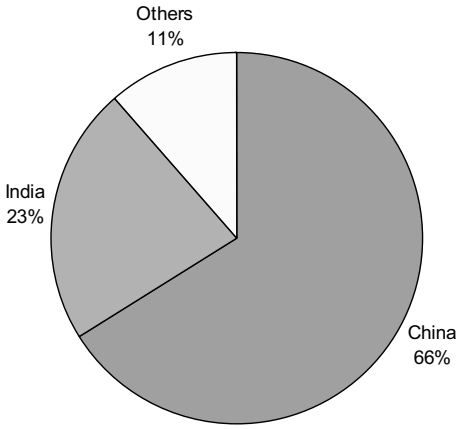
Figure 15

Proportion of timber exports to China and India from two major shipping companies

(a) Company 'A'



(b) Company 'B'



Source: Shipping company statistics, 2005.

India is also emerging as a major importer of timber products, accounting for 8-23% of containers holding timber of the two shipping companies surveyed (Figure 15). According to FBD data, all sandalwood exported in the last half of 2005 was destined for India (Table 18). Other major destinations for timber exports include the United Arab Emirates (three-quarters of all softwood sawn wood) and other countries in Southeast Asia (e.g. Taiwan, Thailand) and the Middle East.

6.3 Indices of unsustainable logging

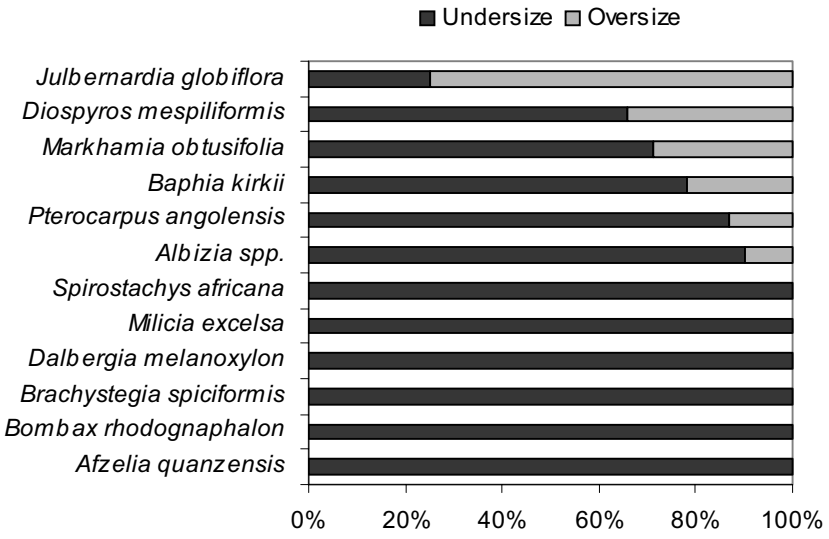
6.3.1 Evidence from forest inventories and disturbance surveys

Felled trees - undersize cutting

Surveys conducted as part of this study in ten coastal forests ranging from the vicinity of Dar es Salaam to the southern boundary of Rufiji District during 2005 revealed a variety of human-induced disturbance, with widespread tree and pole cutting. Overall, 18% of all timber trees (26% by standing basal area) had been cut. However, over two-thirds (68%) of all trees with a defined minimum harvestable diameter (according to the *Forest Regulations of 2004*) were cut below legal requirements. For several species, none of the tree stumps reached the officially required legal DBH measurements (Figure 16). Whilst illegal, the issue presented here is one of sustainability; it is apparent that loggers predominantly harvested undersize specimens since most large trees had long since been removed.

Figure 16

Number of tree stumps falling below and above the legal DBH measurements for harvesting



Note: Only stumps >15 cm in diameter were included in this analysis to remove bias from trees harvested for poles and charcoal production.

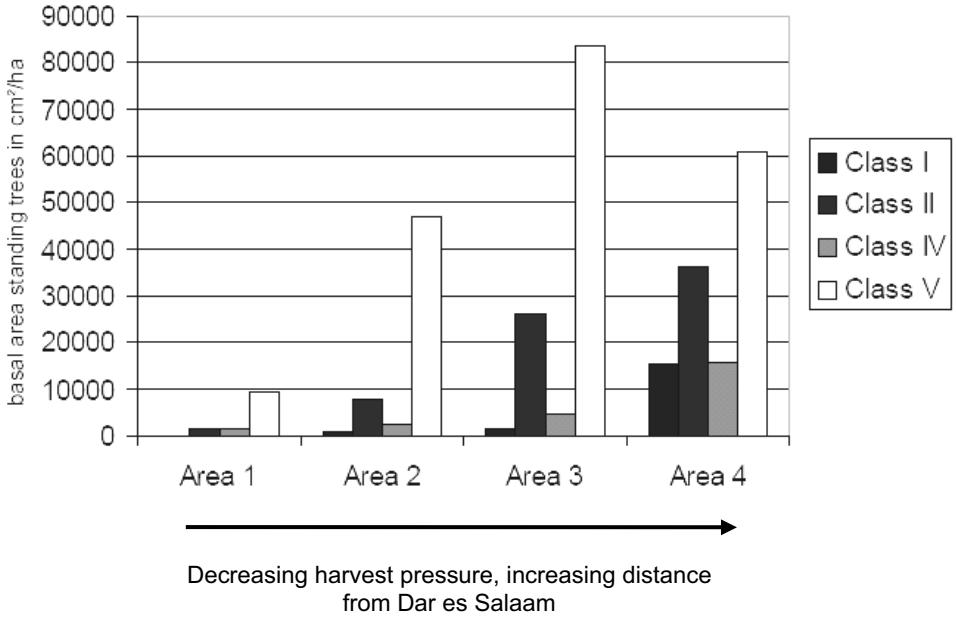
These forest surveys frequently came across timber trees cut below 30cm DBH, matching market observations of planks the same size. Many of these logs were incorrectly classified as off-cuts as a way of bypassing restrictions on tree-felling.

Remaining timber resources – scarcity of valuable, sizeable specimens

The impact of unsustainable harvesting is perhaps more obvious by comparing the composition of remaining trees in forests exposed to different harvesting pressures. Figure 17 clearly shows higher overall quantities of timber (and quantities of valuable timber species) remaining in forests where harvesting pressure is relatively low (i.e. Area 4, furthest away from Dar es Salaam). Forests nearer to Dar es Salaam have experienced a serious depletion of all timber species, but in particular the most valuable species.

Figure 17

Remaining timber resources across timber classes and areas

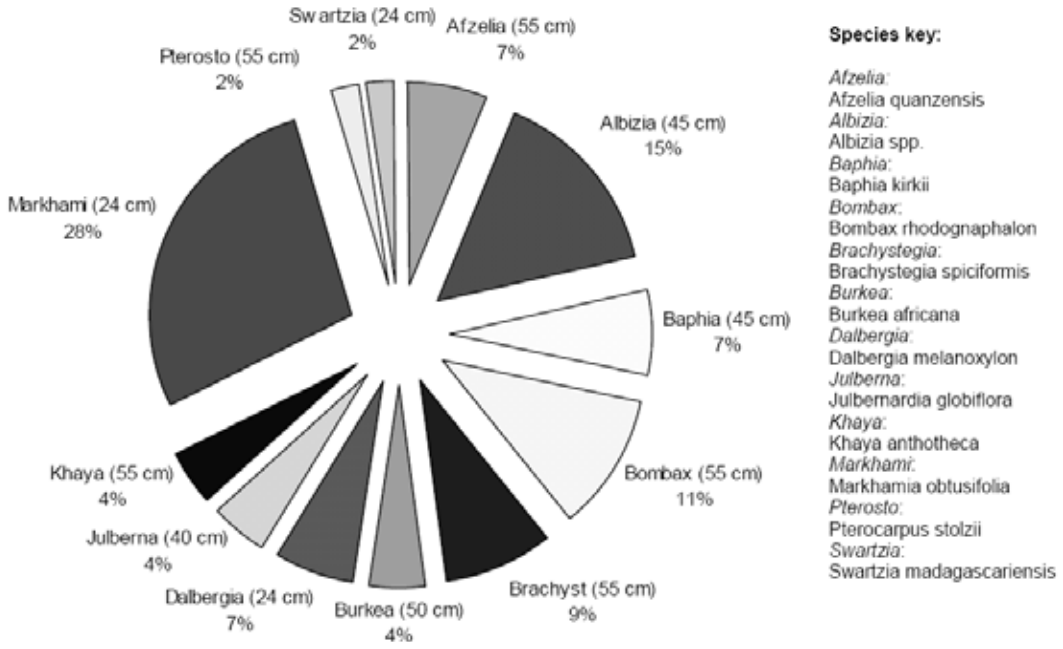


Note: Additional information on spatial patterns in timber harvesting and forest status is given in chapter 7.2 whilst further details are provided in Ahrends (2005).

In terms of individual species, the composition of standing trees reaching legal DBH measurements was dominated by low value species (Figure 18). Preferred, high value Class I species such as *Dalbergia melanoxylon, Julbernardia globiflora, Khaya anthotheca, Swartzia madagascariensis* and *Pterocarpus stolzii* constituted less than 10% each, whilst other popular species constituted only very small fractions (e.g. *Brachystegia spiciformis, Afzelia quanzensis, Burkea africana, Pterocarpus angolensis, Brachylaena huillensis, Milicia excelsa,* and *Diospyros mespiliformis*).

Figure 18

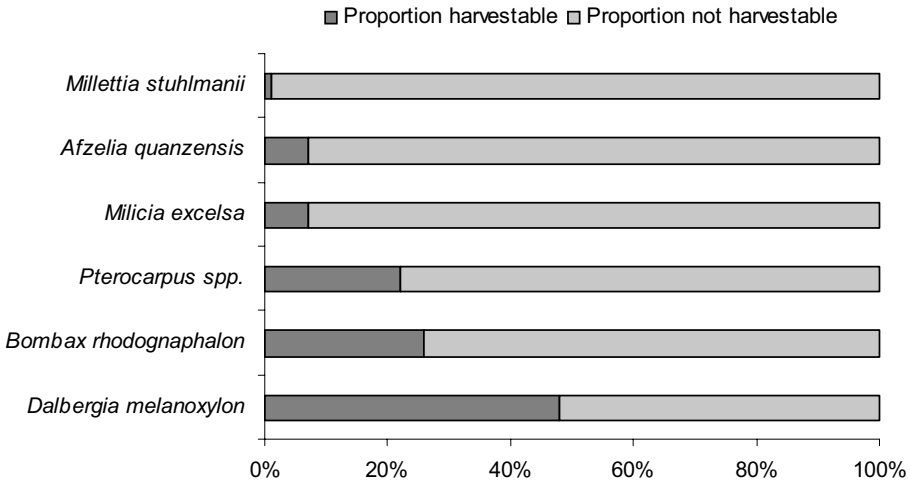
Proportion of species reaching legal DBH measurements (standing trees)



Comparison of these forest surveys with previous studies conducted ten or more years ago revealed that several commercial species such as *Milicia excelsa* and *Brachyleana huillensis* were no longer available. Further south, in Kilwa District, surveys conducted by the Mpingo Conservation Project have also revealed very low proportions of some species reaching legal minimum DBH requirements, such as *Millettia stuhlmannii*, *Afzelia quanzensis* and *Milicia excelsa* (Figure 19; Ball *et al.,* 2006).

Figure 19

Proportion of standing trees (>24 cm) exceeding legal minimum DBH measurements, Kilwa District



Source: Mpingo Conservation Project rapid stock assessment (Ball *et al.*, 2006).

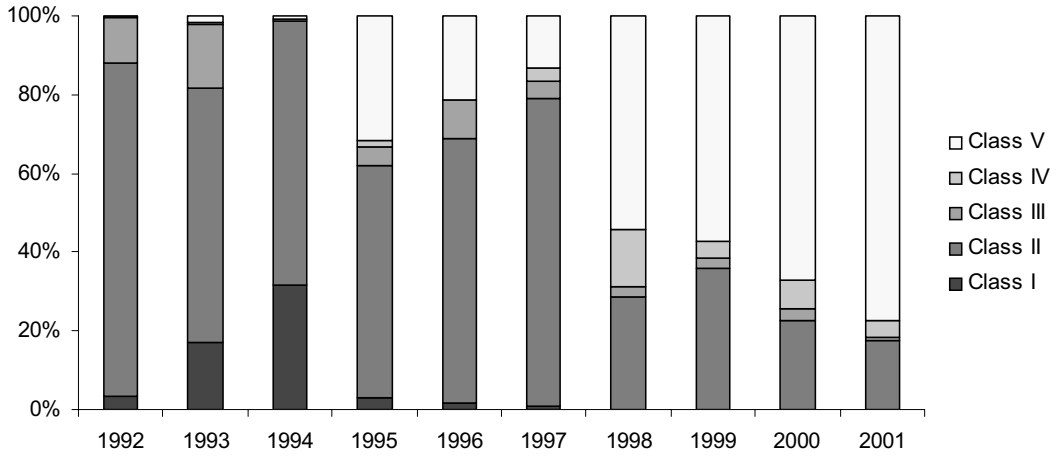
6.3.2 Evidence from trade data

Changes in species composition

Recent changes in timber trade throughout southern Tanzania have been most pronounced in Rufiji District, whose close proximity to Dar es Salaam has created the highest harvest pressure per unit area of forest[33]. Throughout the 1990s, it became clear that valuable hardwoods (Class I and II) were getting scarcer (Figure 20).

Figure 20

Class composition of hardwood licences (m^3) issued in Rufiji District, 1992-2001



Source: Milledge *et al* (2005c).

Since the early 2000s, Rufiji District has continued to witness several changes in species preference. For example, following the recent rise in demand for export quality hardwoods and depletion of *Swartzia madagascariensis*, focus turned to other species including *Millettia stuhlmannii, Pericopsis angolensis* and *Combretum imberbe*. Indeed, *Swartzia madagascariensis*, previously the only indigenous hardwood legally exported as round wood before the *Forest Act (2002)* became effective on 1st July 2004, is widely considered commercially extinct in Rufiji District. Another species, *Combretum imberbe*, was targeted heavily from the end of 2001 up until the middle of 2002, after which scarcity drove traders to switch to *Baphia kirkii*. Observations of village landing sites during October 2004 confirmed only reject *Combretum imberbe* logs remaining. Ultimately, a prohibition on harvesting *Combretum imberbe* within Rufiji District was introduced in August 2003, followed one month later by a total nationwide ban.

[33] During 2000/2001, the average harvest pressure for Rufiji District was estimated at 57.0 m^3per 10 000 Ha, many times higher than the rest of the study area, 1.1-12.0 m^3 per 10 000 Ha (Milledge *et al.*, 2005c).

Similarly, the market for sawn timber from Rufiji District has witnessed changes in species composition, with historically lesser-known timber species such as *Afzelia quanzensis, Hymenaea verrucosa* and *Trichilia emetica* rapidly dominating trade volumes. Indeed, most stakeholders confirmed official trade data, indicating that only undersize *Millicia excelsa* and *Pterocarpus angolensis*, both conventionally popular hardwoods, were available throughout most of Rufiji District.

Changes in harvest areas

Changes in harvest areas can also act as an indicator for declining timber resources, as local depletion of targeted species forces traders to move to new areas. Evidence from trade data showed a gradual shift in harvest areas in Rufii District following systematic depletion of selected species. For example, harvest areas in 2004 (mainly Ruhoi, Nyamwage, Mbwara, Kichi and Kiwanga) were further south and west than in 2000-2001 when most harvesting focused on Ngumburuni, Ruhoi, Ikwiriri and Nyamwage[34].

During 2004, areas of highest harvest pressure in Kilwa District appeared to be the same as recorded in 2000/2001 (Milledge *et al.*, 2005c). At that time, higher harvesting was taking place in the Nainokwe-Zinga-Likawage-Liwiti complex, together with smaller timber harvest foci including Hoteli Tatu, Njinjo and Mavuji. However, villagers in Kilwa District (as well as in Nachingwea District) expressed concern that some species would soon be exhausted, causing harvesting to shift elsewhere.

One species that has shown a spatial shift in harvesting is *Dalbergia melanoxylon*. During 2005, harvesting in Kilwa District was concentrated around Migeregere; over 650 *Dalbergia melanoxylon* logs were counted during a visit in October 2004. In 2000, however, Mavuji was the main harvest area for this species, itself replacing other areas largely depleted of good stock (e.g. Nandera, Kikole, Chumo, Nanjirinji and Mingumbi). Concerns that harvest levels are impacting the sustainability of this species in southern Tanzania have been expressed in recent years, with the available evidence already showing a marked southern shift in harvesting away from Kenya and northern Tanzania (Jenkins *et al*., 2002; Milledge *et al.*, 2005c).

Credit: Simon Milledge/TRAFFIC

Dalbergia melanoxylon logs stored at Migeregere village

[34] Most stakeholders interviewed also admit that nowadays they have to travel longer distances to find harvestable trees. For example, sawmill operators and traders in Rufiji District reported in 2005 that it took around 24 hours for one trip to collect logs from the forests, compared to about six hours two years previously.

7 DRIVING FORCES OF AN EXPANDING TIMBER TRADE

An expanding primary commodity business requires a few key elements, including ***availability*** of the desired commodity, identification and ***access to important markets***, a good measure of ***profitability***, and relatively ***efficient trading links*** between source and market. In Tanzania, these elements have combined to drive a rapidly increasing timber business over the past few years.

7.1 Global market forces

China's standing as the largest importer of round logs in the world is increasingly having an impact on Africa, which is now supplying almost a quarter (22.5%) of hardwood log imports to the country (LLC, 2004). In terms of scale, West and Central Africa have witnessed the most obvious effects of China's emergence as a major player in the global timber trade. Whilst tropical timber from West Africa traditionally has supplied closer and historically-linked European markets, China has managed to import West African timber, and subsequently produce and ship tropical plywood, at competitive prices (Adams, 2004). Indeed, China increased its market share of Central and West African wood from 25% of all log exports in 1998 to 42% in 2003 (LLC, 2004). In addition, European companies in West Africa have generally been replaced by Chinese and other Asian timber businesses (ITTO, 2005a,b).

The influence of Chinese timber demand on East Africa has been scarcely documented, partly due to the much lower quantities concerned. Whilst volumes of tropical timber exported from East Africa to China are relatively small on the international scale, there is little doubt that China's influence in the region is growing fast. China's presence in Tanzania noticeably picked up in the early 2000s. By 2002, China had embarked on forestry projects in Tanzania (part of some 30 forestry projects worldwide) to overcome the shortage of some 60 million m^3 of raw material supply in China due to their logging ban[35]. In fact, Tanzania was Africa's sixth largest timber exporter to China in 2005, showing a 1386% increase by value since 1997 (Table 19)

Chapter 6.2 outlined how ***China has emerged as leading importer of timber from Tanzania***. For example, around 52-66% of containers containing timber products from the port of Dar es Salaam were destined for China, whilst official export statistics show that China imported all indigenous hardwood logs and three-quarters of processed hardwoods (sawn wood and billets) between July 2005 and January 2006 (Figure 21).

[35] These initiatives were announced at a seminar held by the Malaysian Timber Council in Kuala Lumpur, 2002.

Table 19

Top six African nations exporting timber to China

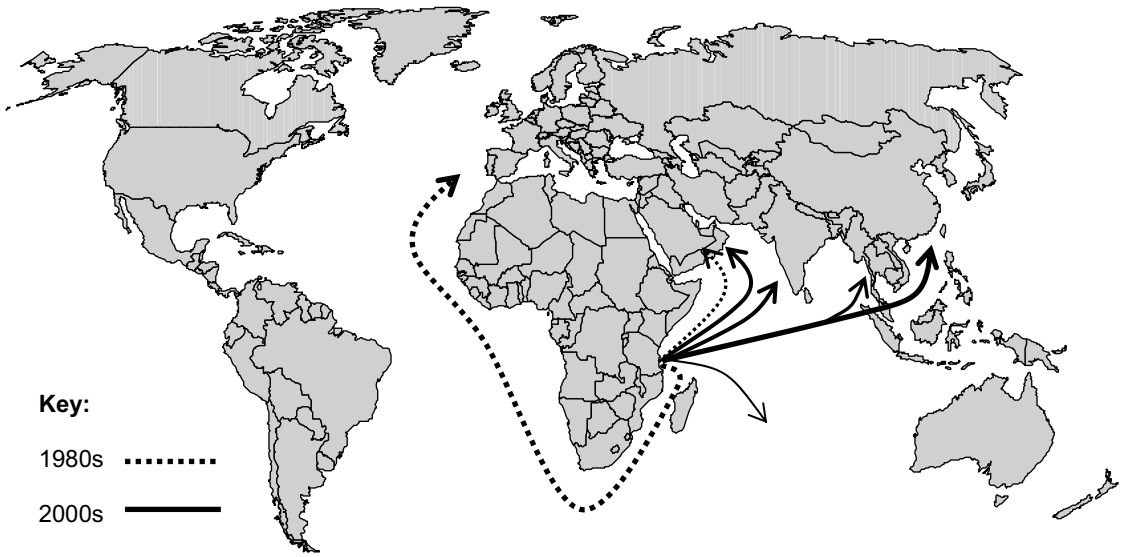
Country	Exports (USD)			African Rank	
	1997	2005	Change	1997	2005
Gabon	217.99	236.60	+ 18.61	1	1
Congo	1.98	120.00	+ 118.02	7	2
Equitorial Guinea	48.15	72.57	+ 24.42	3	3
Mozambique	0.04	41.27	+ 41.23	14	4
Cameroon	62.26	22.54	- 39.72	2	5
Tanzania	0.65	9.59	+ 8.94	9	6

Source: Chinese Bureau of Statistics, obtained from Rights and Resources Group, USA.

By 2020, India is predicted to have the world's largest working and consuming population. Combined with positive economic growth, the consumption of logs for industrial purposes expected to double by 2020 (White *et al.*, 2006). Already, India is emerging as a major importer of timber products from Tanzania, accounting for up to a quarter of shipped containers containing timber products (Figure 21). There is little doubt, therefore, that future market demands from India are likely to influence harvesting dynamics in Tanzania in a similar way to China.

Figure 21

Current and historical importing regions of timber from Tanzania



As an example of the ***powerful force exerted on Tanzania by global market demand***, especially that of China, Figure 22 illustrates changes in species composition of timber harvested from the vicinity of the Rufiji River over a one-year period. During this

timeframe, there was a fairly dramatic change in hardwood selection, moving from species such as *Combretum imberbe*, *Pericopsis angolensis* and *Hymenaea verrucosa* to a greater proportion of *Baphia kirkii*, *Millettia stuhlmannii* and various other species.

At first glance, it appears that the completion of the Mkapa Bridge – completed in August 2003 – caused shifts in species selection in response to changing availability of the different tree species. In reality, however, the shift was almost exclusively in response to specific market demands from South and East Asian importers. In 2002, certain Tanzanian based traders sent hardwood samples to various importers throughout East Asia; the positive reply soon catalysed the timber rush in southern Tanzania.

Figure 22 also illustrates species-specific patterns in harvesting within this area. For example, *Afzelia quanzensis* harvesting (mostly 'offcuts') was concentrated on the eastern side of Rufiji District during 2003, whilst *Combretum imberbe* harvesting was more concentrated on the western side. During 2004, however, *Combretum imberbe* and *Pericopsis angolensis* were harvested mostly from south of Rufiji River.

These observed changes in demand from East Asia – both in terms of increased quantities and interest in specific species – underlie the clear ***trade and investment opportunities*** that Tanzania represents for the Asian market. For example, it was apparent that both China and India were importing lesser known timber species that previously had no export market. Maritime transport to these destinations from East Africa was also relatively cheap when compared to markets in Western Europe. Thus, the main challenge for Tanzania therefore lies in ***how to service this market profitably through a sustainable forestry strategy that safeguards the resource base***.

Unfortunately, the globalisation of markets and trade dynamics has also expanded the ***opportunity for collusive and concealed trade arrangements and transactions*** to unfold (Andvig *et al.*, 2000). This has certainly affected the timber trade sector in Tanzania. Table 20 illustrates how reported Chinese imports of timber from Tanzania have greatly exceeded Tanzania's reported *total* exports (i.e. to all destinations).

Table 20

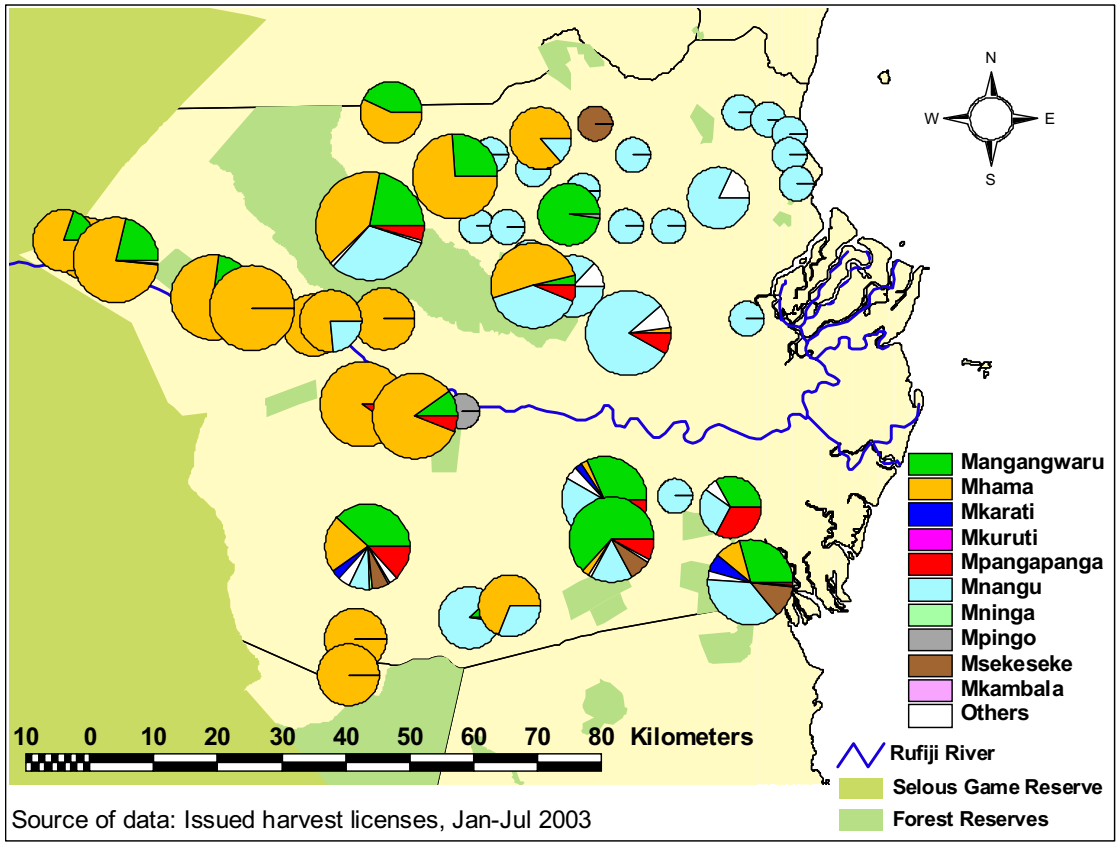
Comparison of timber export volumes (m^3) from Tanzania

Tanzania *total* exports		China imports from Tanzania	
2002/2003	4 920	2003	45 432
2003/2004	8 529	2004	41 699
2004/2005	5 867	2005	21 374

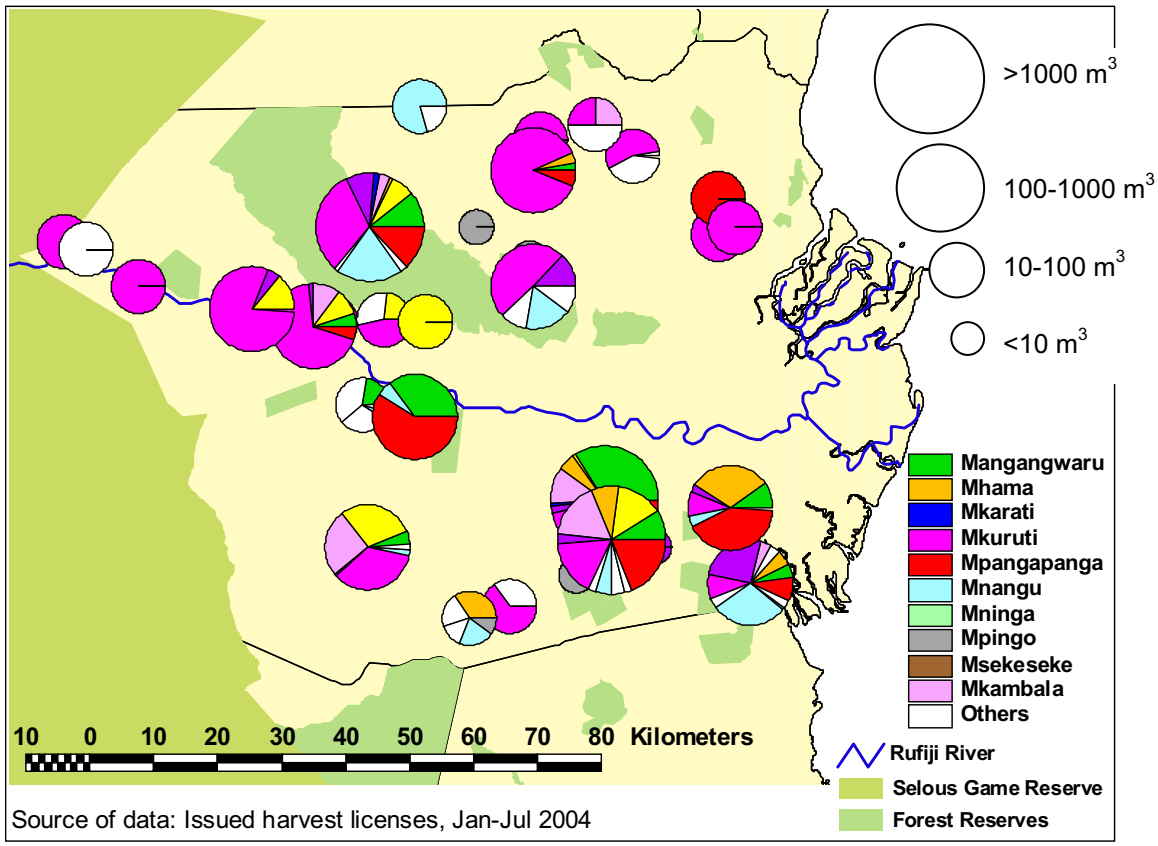
Source: Tanzania and China government statistics.

Figure 22

Changes in hardwood species selection in Rufiji District between 2003 and 2004



Source of data: Issued harvest licenses, Jan-Jul 2003



Source of data: Issued harvest licenses, Jan-Jul 2004

7.2 Accessibility to resources and markets

Forest accessibility and the condition of roads were reported to be amongst the most important limiting factors affecting timber traders. ***Infrastructure development is a key ingredient to secure economic growth, poverty reduction and sustainable development, and an important point of intervention for environmental sector players*** in helping to safeguard natural resources as the process of development unfolds.

Two examples illustrate the challenge posed in reaching an ideal balance between infrastructure development and the status of the natural resource base. A recent study of growth and environment linkages in Tanzania presented evidence of a negative correlation[36] between forest reserve coverage and road density (km of roads per km^2), with regions having the largest area of forest also exhibiting limited infrastructure development as indicated by roads (World Bank, 2005b). At the global level, a review of 140 economic models concluded that more roads were one cause of tropical deforestation (Angelsen *et al.*, 1999). The following two sections provide further data to show how infrastructure developments have influenced timber trade dynamics in southern Tanzania.

7.2.1 Impact of Mkapa Bridge

Southern Tanzania can be broadly termed as having poor infrastructure although efforts are being made to improve the transport linkages to Dar es Salaam[37] in the north (as well as to Mozambique, the region's southern neighbour).

View along Mkapa Bridge

The limiting factor preventing road improvements in southern Tanzania was the lack of a permanent crossing across the Rufiji River, particularly during the rainy seasons (Milledge *et al.*, 2005c). However, completion of the Mkapa Bridge in August 2003 has provided a more reliable river crossing throughout the year, and thus shortened the travel time to Dar es Salaam in

Rufiji River delta area

Credits: Simon Milledge/TRAFFIC

[36] Pearson correlation coefficient R=-0.55.

[37] Some TZS 126.6 billion (USD 120.2 million) was set aside for the road sector nationwide in 2003/2004 (Mramba, 2003).

general. For example, heavy trucks may now reach Dar es Salaam from Masasi town in one day instead of taking up to one week.

Prior to completion of Mkapa Bridge, TRAFFIC documented baseline timber trade dynamics which offered a unique opportunity to better understand the impact of infrastructure development on timber resource use (Milledge *et al.*, 2005c). Monitoring of logging and timber trade following completion of Mkapa Bridge has highlighted the following changes:

i. An ***overall increase in timber trade volumes*** has been witnessed. For example, volumes issued on harvest licences from Kilwa District increased from 677 m^3 between January and June 2003 to 1643 m^3 during the same period of 2004, and from 1196 m^3 to 8642 m^3 in Rufiji District;

ii. ***Accelerated harvesting*** occurred almost immediately from the moment the bridge was opened, especially in areas of Rufiji District south of the Rufiji River (Figure 23; this in turn resulted in changes in targeted species as described above, but not prices);

iii. Up to a two-fold ***increase in the number of traders*** occurred, as well as increases in foreign investment;

iv. ***Larger logging trucks and trailers*** are now used to transport logs and planks, which can be up to twice the size of previous shipments; and

v. Proportion of ***illegal harvesting and smuggling increased*** (from 77% to 96% in two years), resulting in equivalent losses in government revenue (see chapter 8.2.2);

As to be expected, there is a ***decline in the impact of the Mkapa Bridge on timber trade dynamics moving further southwards***. Changes in species composition, trade volumes, harvest areas, investment and percentage illegal trade were *all* greater in northern parts of the study area. In fact, many stakeholders in the most southern parts of the study area felt that the Mkapa Bridge had little effect, if any, on timber trade. This was due to both spatial and temporal reasons, including the fact that harvesting in Ruangwa, Nachingwea and Tunduru is more heavily influenced by market and transport factors in Mtwara and Songea than those en route to Dar es Salaam. Influence of the Mkapa Bridge in the most southern areas would likely be felt only once improvements are made to linking roads, in addition to exhaustion of timber supplies further north in the study area.

Whilst timber trade dynamics during 2005 indicated a relatively low impact of Mkapa Bridge in the most southern parts of the country, it is probably just a matter of time before unsustainable harvest pressures drives harvesting further southwards.

7.2.2 Distance to Dar es Salaam markets

Traders throughout Rufiji and Kilwa Districts stated that it was the total distance to Dar es Salaam which was the primary determining factor affecting costs and feasibility of timber trade. Combined with a seemingly insatiable demand for timber in Dar es Salaam, this has caused very high harvesting pressures near the city, with clear spatial patterns in sustainability moving further south.

Surveys conducted in ten coastal forests between Dar es Salaam and south of Rufiji River revealed six main trends in connection with the observed decline in impact the further one moves away from Dar es Salaam:

i. Higher percentage of cut trees used as timber (as opposed to charcoal and poles);
ii. Larger proportion of cut trees were valuable Class I species;
iii. Increasing number of bigger trees felled (increase in average stump size);
iv. Lower proportion of undersize cutting (below legal minimum MDH);
v. Higher quantities of timber resources remaining overall; and
vi. Higher quantities of valuable Class I and II timber species remaining.

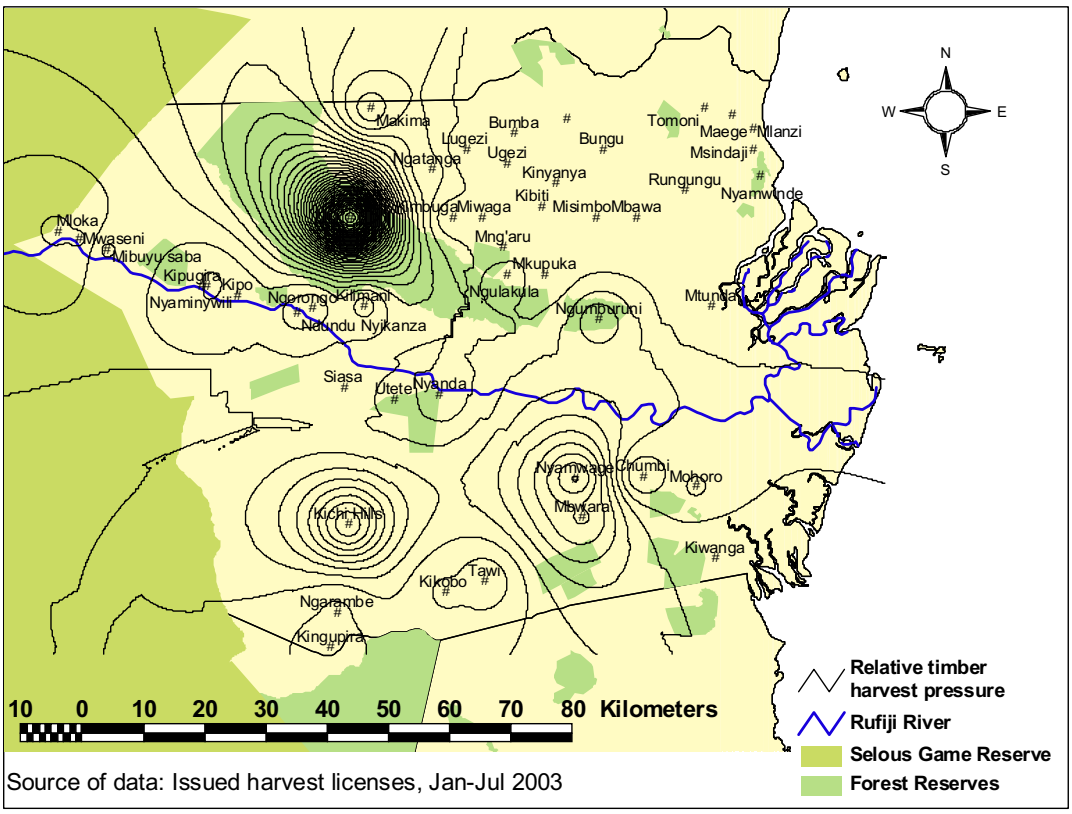
There was a definite lack of high value species harvested within 200 km south of Dar es Salaam, with the majority of trees harvested north of the Rufiji River belonging to Class V. In contrast, large quantities of Class I species were only harvested south of the Rufiji River (stacked bars in Figure 24). When the stump measurements were weighted according to the amounts payable to government according to timber Class, there was an increasing trend in average 'stump value' moving southwards (trend lines in Figure 24). The average number of pit sawing sites also increased moving away from Dar es Salaam.

Similarly, a very low proportion of valuable tree species remained north of the Rufiji River, within 200 km of Dar es Salaam (stacked bars in Figure 25). When the standing tree basal area measurements were weighted according to timber Class, there was again a clearly increasing trend in average 'basal area value' moving southwards (trend lines in Figure 25).

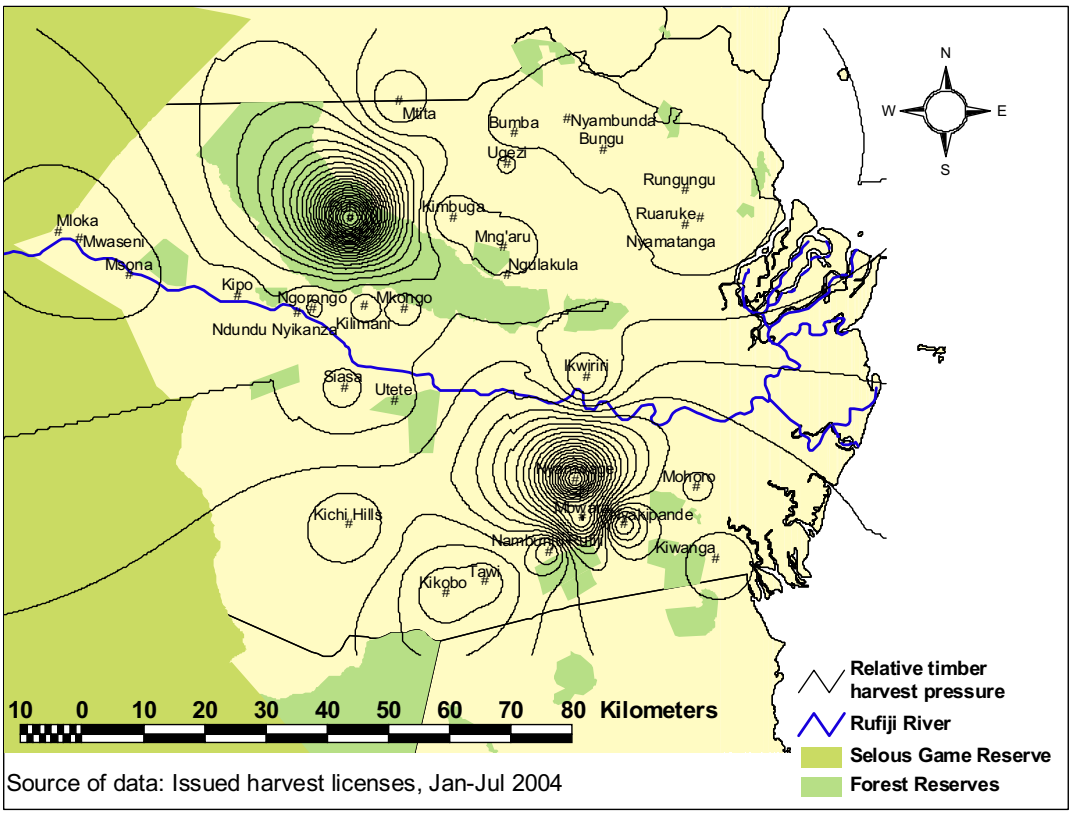
In summary, the ***proportion of high-value species, both stumps and standing trees, increased moving southwards***, due to the steadily declining impact of demand forces coming from Dar es Salaam. Analysis across sites confirmed that the ***distance to Dar es Salaam was the main significant predictor for most spatial harvesting patterns***, including the proportion of trees felled specifically for timber, the proportion of valuable tree species felled, and both the number and basal area of standing trees. Accessibility and distance from main road were also found to be important influencing factors, although not as statistically significant as distance from Dar es Salaam.

Figure 23

Southward shift in harvesting following completion of Mkapa Bridge in August 2003



Source of data: Issued harvest licenses, Jan-Jul 2003



Source of data: Issued harvest licenses, Jan-Jul 2004

Figure 24

Composition of felled trees by timber Class and average 'stump value' at increasing distance from Dar es Salaam

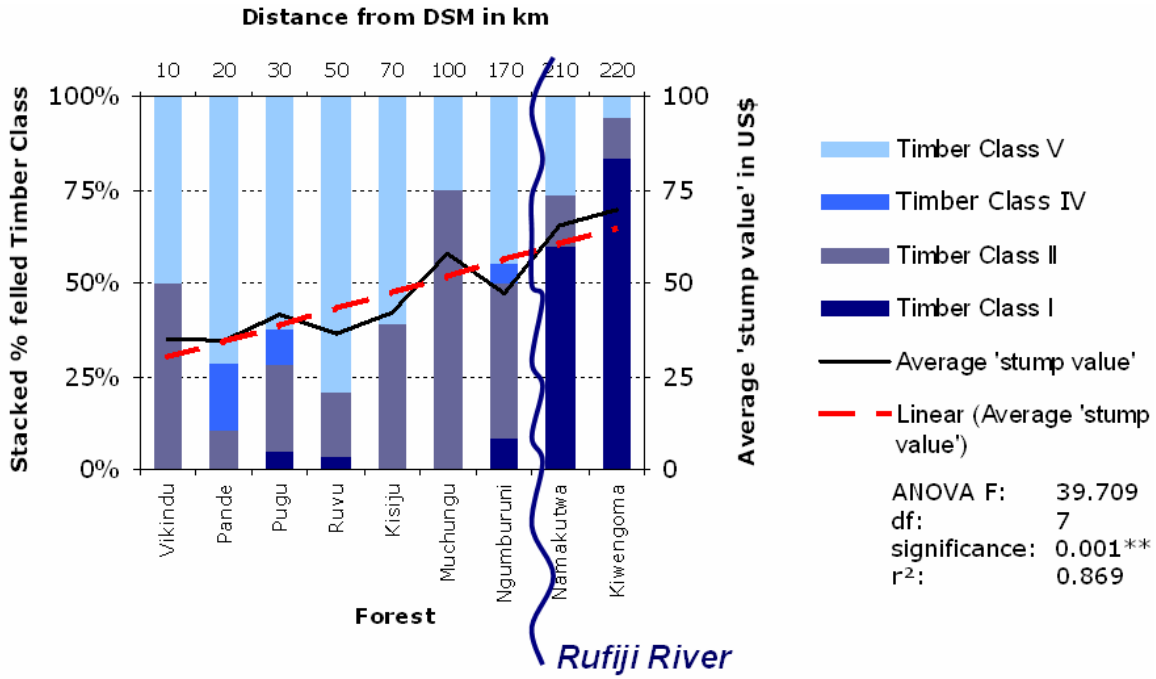
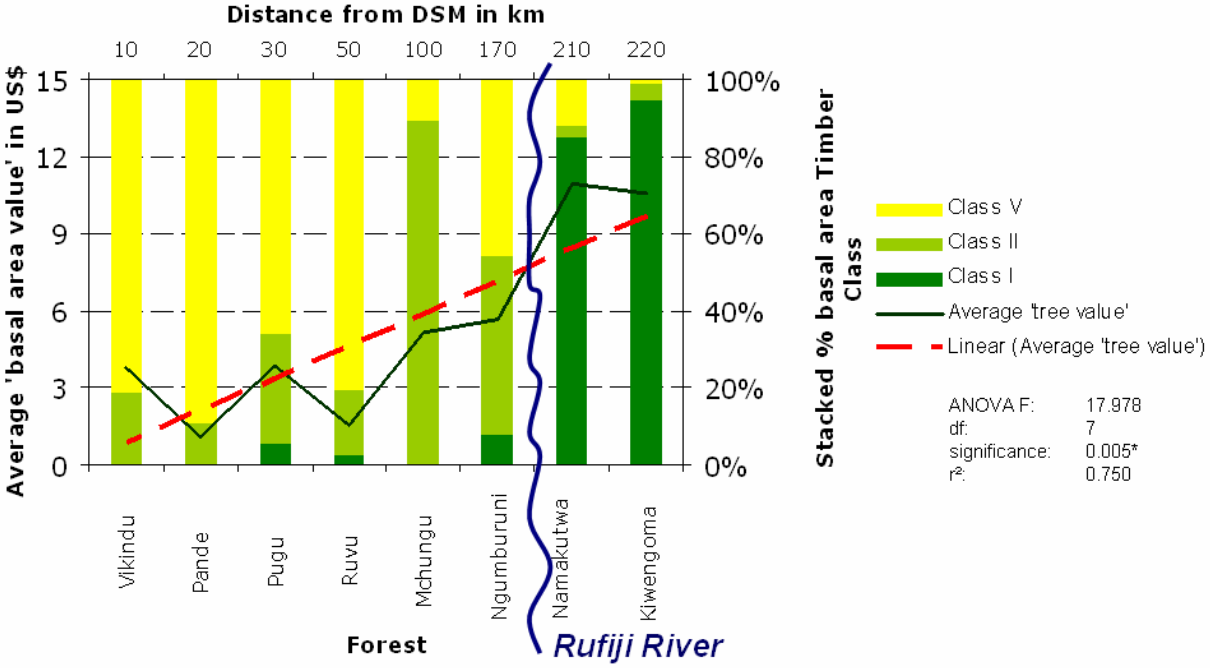


Figure 25

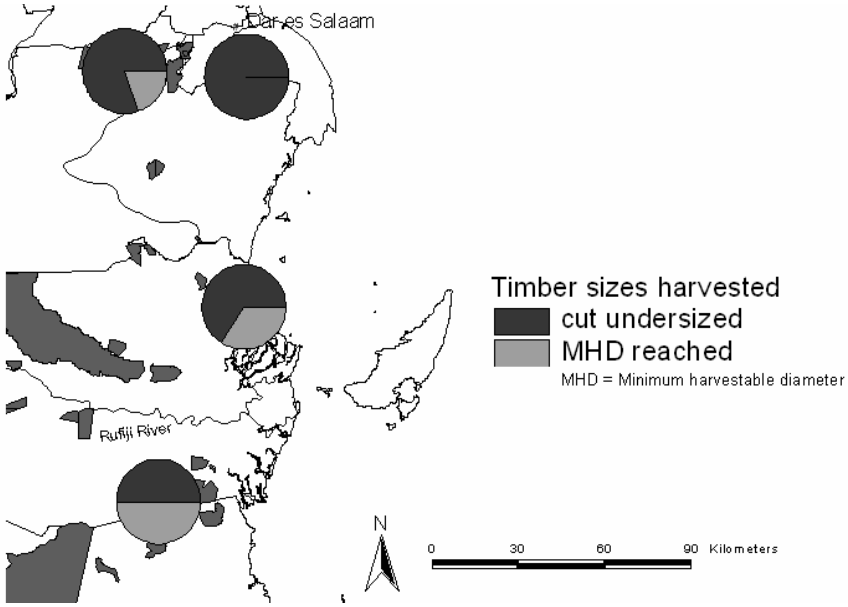
Composition of standing trees by timber Class and average 'basal area value' at increasing distance from Dar es Salaam



As one would expect from the changing timber class composition moving southwards described above, a higher proportion of undersize trees are cut nearer Dar es Salaam where historically higher harvest pressures north of Rufiji River have reduced numbers of valuable timber species (Figure 26).

Figure 26

Undersize cutting at increasing distance from Dar es Salaam



7.3 High profitability

High profit margins for trading logs and sawn wood have been possible in southern Tanzania due to various factors. Firstly, there was a ***relatively high abundance*** of those hardwood species targeted for export in recent years (e.g. *Baphia kirkii, Millettia stuhlmannii* and *Combretum imberbe*) since they were not previously traded in large quantities. This effectively prevented increases in purchase prices that normally transpire as a product becomes scarcer.

Secondly, the ***value of logs from Tanzania has continued to increase locally*** in addition to ***staying high compared to competitors in other African countries***. According to FBD, revenue from log exports between 2002/2003 and 2004/2005 saw average unit values steadily increase from USD 251 to USD 330 per m^3 (Table 21). FOB prices were as high as USD 590 per m^3 for *Swartzia madagascariensis*. Comparative prices for logs to the international market from West Africa were considerably lower (Table 22).

Table 21

FOB prices (USD) for selected timber products shipped from Tanzania

Product	FOB values	Product	FOB values
Hardwood round wood	USD 251-330 per m^3	Hardwood flooring strips	USD 600-1200 per m^3
Hardwood sawn timber	USD 275-570 per m^3	Softwood sawn timber	USD 130 per m^3

Table 22

Price comparison of different hardwood products sold from West Africa

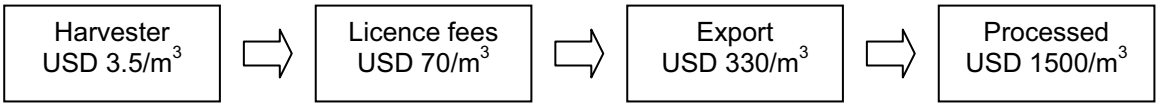
Product	Market	Lower value	Upper value
Hardwood round wood	Domestic	USD 31 /m^3	USD 175 /m^3
Hardwood round wood	International	USD 94 /m^3	USD 200 /m^3
Hardwood sawn timber	Domestic	USD 106 /m^3	USD 260 /m^3
Hardwood sawn timber	International	USD 180 /m^3	USD 855 /m^3
Hardwood plywood and veneer	International	USD 235 /m^3	USD 305 /m^3

Source: ITTO (2005a,b).

Other reasons for increased profit margins included the ***low levels of enforcement effort*** (minimizing risks of operating illegally) and ***low awareness of the true market value amongst rural communities***. This enabled many traders to secure low purchase prices at the outset and subsequently avoid paying government royalties later on. A quick calculation highlights the small percentage of profit from the hardwood timber trade that was retained at village level (Figure 27). For every cubic metre of Class I hardwood, village harvesters earned on average USD 3.50, equivalent to just five per cent of the value collected by central government from harvest fees (USD 70 per m^3). At the time of export, it was worth around USD 330 per m^3, almost 100 times the price at village level, yet ironically no value had been added to the product.

Figure 27

Diagram illustrating the value chain for hardwood lumber in Tanzania



7.4 Ownership and stewardship of resource

Ownership of any commodity is an essential ingredient for sustainable management. Unfortunately, the ***lack of clear ownership potentially acted as a perverse inventive***, let alone preventing optimal management. In the case of forests in southern Tanzania, the

majority lie on public land and therefore receive few management inputs from government. However, ***engaging local communities in forest management was plagued by popular (and polarised) public perceptions of forests*** – either as entirely owned by central government, or, at the other end of the spectrum, basically free-access resources with little or no stewardship status.

Whilst current policies call for the involvement of communities, villages visited throughout 2004-2006 were ***largely unaware*** of the new *Forest Act (2002)*, relevant procedures for participatory forest management, and what incentives truly exist. Relevant policy documents were not available in any of the villages visited. Lingering perceptions regarding forest ownership status and delays in getting the 'PFM message' out to rural areas have acted as perverse inventives driving unsustainable harvests.

At the same time, there have been considerable efforts by the Tanzanian government, development partners and NGOs to catalyse PFM in southern Tanzania. Efforts continue, but several important obstacles need to be noted. ***PFM has proven to be a very long process, with large investments in financial support and time***. Some villages involved for at least three to five years have still not completed the process. An extreme example is Mtanza-Msona village in Rufiji District, where revenue was not being received at village level up until mid-2005 despite a fully gazetted village forest reserve and operational management plan. The lack of perceived benefits ultimately led to deliberate timber harvesting contrary to the management plan. In all major PFM sites, interviewed stakeholders felt that donor-funded projects were too short in duration to empower communities to manage the forest effectively. In many cases, good progress made during the lifespan of a donor-funded project was damaged once the project phased out.

Another major limiting factor to PFM success, mentioned at almost every site, was the level of support from the LGA. ***Reluctance on the part of the LGA to support PFM initiatives has impacted on PFM progress***. LGAs are largely lacking capacity in community forest management, since most officers are traditional foresters who value forests mainly as a source of timber for commercial purposes only. Further, forests form a large proportion of revenue to district councils in the study area. Many stakeholders interviewed from LGAs perceived the involvement of communities in forest management as withdrawing revenue and management authority.

A key message regarding forest ownership, tenure and timber trade in southern Tanzania is that ***unless the perception of benefits which accrue to both communities and local government are greater than the investment costs (e.g. time, resources), the incentives to engage in sustainable and legal forestry will remain low***.

8 GOVERNANCE OF TIMBER TRADE IN SOUTHERN TANZANIA

"…the emergence of natural resource exploitation as a dynamic economic arena in Tanzania poses particular challenges to rent management systems."

Quote taken from Khan, M.H. and Gray, H. (2005)

8.1 Understanding governance and its importance

Many definitions of governance exist. Perhaps the most apt is an adaptation of the World Bank definition that captures the trustee and stewardship responsibilities of the state with respect to forests and those who depend upon them: *"Governance is the manner in which power in exercised in the management of a country's economic, social and natural resources for development"*. Another definition was provided by Cooksey (2005), *"the capacity of the state to turn taxes into equitable and social and economic services ("public goods") and the maintenance of law and order"*. The three generally recognized pillars for good governance include: (i) reduction of corruption; (ii) stable property rights; and (iii) rule of law[38].

An increasing body of literature shows that ***good governance is fundamental for growth, development and security*** (Kaufmann, 2004b). Specifically, there is a strong correlation between governance and competitiveness, with countries deriving a very large "*development dividend"* from better governance[39]. The Africa Commission stated "*Good governance is the key…Unless there are improvements in capacity, accountability, and reducing corruption…other reforms will have only limited impact*." A recent review of the likely forestry sector impacts of further trade liberalisation (as part of the WTO Doha Development Agenda) showed that developing countries may face considerable environmental and social costs, which could offset economic gains from trade liberalisation unless adequate safeguards are adopted to address forest governance (Katila *et al.,* 2005). Governance is also important to ensure effective delivery of foreign aid and thus remains a priority within the development community (Kaufmann, 2004b). In recognition of this correlation, ***governance and accountability is a central theme in the NSGRP*** (VPO, 2005; chapter 5.2.3).

In an ideal world, good governance in the forestry sector would ensure that positive policy contributions result from the implementation of sectoral action plans that are based on existing policies, legal framework and institutional structures (labelled ① in

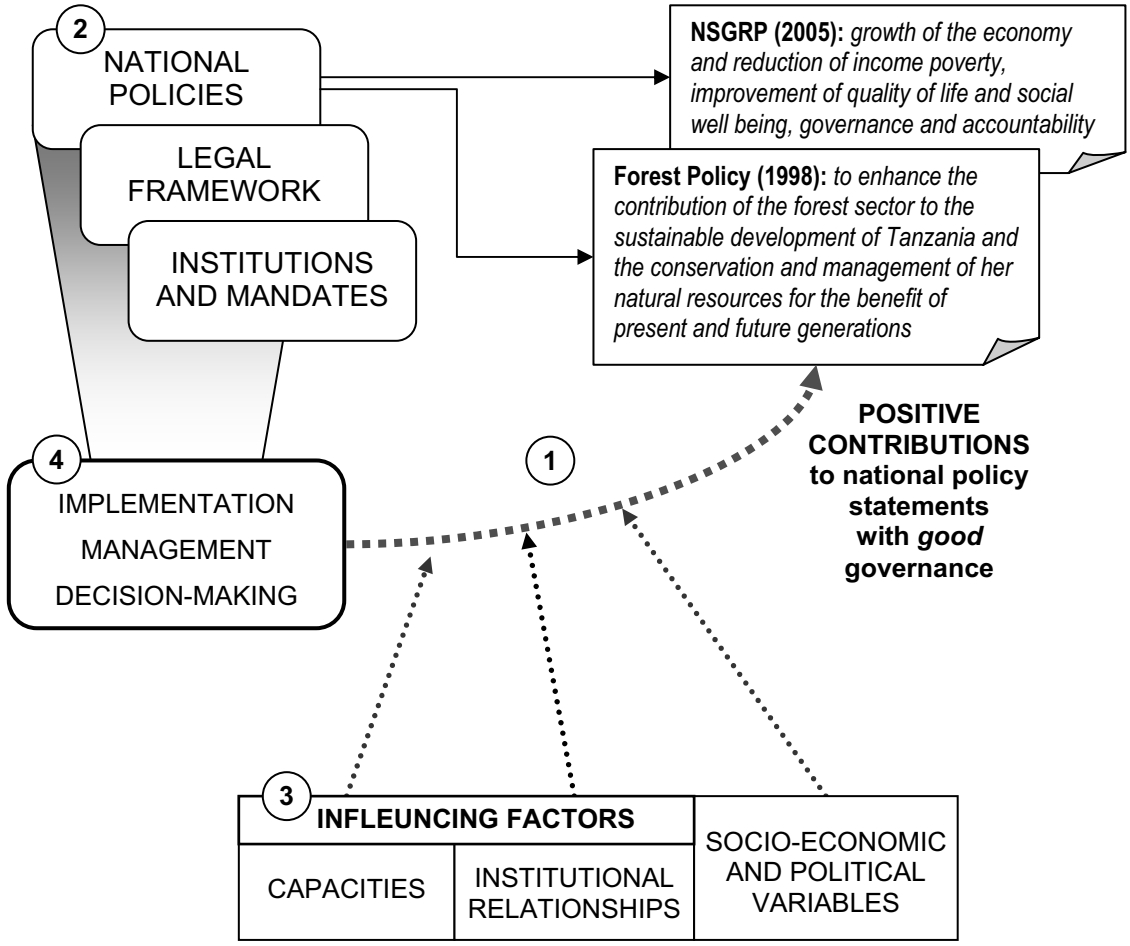
[38] Khan *et al.* (2005) also argue that *transformative capabilities* are required by the state to counteract challenges and costs of realizing markets and acquiring technologies.

[39] Further, surveys by the World Bank have shown how firms in emerging economies considered that bureaucracy and corruption were the greatest constraints to business development (Kaufmann, 2004b).

Figure 28). A prerequisite, naturally, is that existing policies have *relevance* to national development goals; an outline of relevant policies, legal frameworks and institutions was given in chapters 5.2.3 and 5.3.1 (labelled ② in Figure 28).

Figure 28

Forestry sector governance model



Mariki (2004) reviewed the key instruments and tools for forest governance, revealing a ***relatively well-developed policy and institutional framework*** (Table 23). Fully understanding the reasons[40] for governance shortfalls – and thus being able to come up with practical recommendations for reform – also requires insight into various influencing factors including ***institutional roles, relationships and capacities*** and other ***socio-economic and political variables*** (labelled ③ in Figure 28). Chapter 8.3 provides an overview of institutional factors, whilst the subsequent chapter 8.4 focuses on ***corruption***, the worst form of public-private sector institutional relationship.

[40] Governance is affected by both 'intentional' (e.g. corruption) and 'unintentional' (e.g. capacity constraints) reasons.

Table 23

Key instruments/tools for facilitative forest governance in Tanzania

Key instruments/tools	Market
Forest Policy (1998)	Quite elaborate and supportive of equitable access for otherwise marginalized groups.
Forest Act (2002)	Equitable benefit and cost (responsibility) sharing in forestry operations.
Land and Village Land Acts	Operational with clear and secure land tenure and ownership.
Participatory Land Use Planning Guidelines	Clear definition of land use. Tanzania has developed land use planning guidelines and distributed them to all districts.
Sustainable financing mechanisms	Some pilot initiatives ongoing: MTEF introduced, retention scheme in place, major efforts required in terms of SWAp and revenue sharing mechanisms.
Decentralization policy, reforms, Act and frameworks	Overall policy in place, institutionalisation ongoing at planning stage, weak linkages and coordination including accountability at local authority levels.
Clear forest administration system	Reforms ongoing including establishment of an autonomous executive agency. Operational modalities with the stakeholders.
Coordination and cross-sectoral policy and legislative linkage mechanisms	Definition of authority for the respective stakeholders at all levels clear and some facilitation in progress. Provision for Forest Advisory Committee in the Act. An upgrading of the Forest Advisory Group and NFP Steering Committee is important.
Cost and benefit sharing mechanisms	Provisions made in the *Forest Act* and the Participatory Forest Management Guidelines. Some pilot studies to establish frameworks ongoing.
Private sector involvement mechanisms	Weak involvement.

Source: Mariki (2004).

Some political and economic analysts argue that corruption can somehow be tolerated when the overall momentum towards meeting national development/policy goals is maintained. Indeed, there are countries that have demonstrated positive economic growth and social development despite relatively high perceived levels of corruption. Key requirements include the presence of shared goals and sufficient state control to limit damaging forms of corruption such as market-restricting and predatory activities (Khan *et al.*, 2005). Chapters 8.5 and 8.6 run through the main ***timber trade management interventions*** in the recent past (labelled ④ in Figure 27), providing examples of management decisions which could be interpreted as detrimental to higher level policy goals. These arguments serve to highlight how governance shortfalls are indeed a limiting factor affecting other management interventions.

Before embarking on this analysis of the different kinds of governance shortfalls, relationships and influencing factors, the following chapter 8.2 provides a measure of the ***scale of governance shortfalls*** affecting the timber trade sector in terms of illegality and associated lost revenue.

Accountability

Accountability is an important contributing factor for realising good governance, although definitions and understanding vary as widely as governance structures themselves. There is little doubt, however, that an understanding of the existing informal and formal accountability processes between different stakeholders is necessary to properly guide interventions. This study refers to four dimensions of accountability (OPM/CMI/REPOA, 2005):

i. ***Vertical*** accountability – relationships between citizens and their political representatives:
    a. ***Electoral*** accountability – political representatives held to account through elections;
    b. ***Societal*** accountability – non-state agents hold government to account through informal means such as media, civil society organisations, protests and associations;
ii. ***Horizontal*** accountability – intra-government relationships between the legislature, the executive, the judiciary and all sub-entities (e.g. Cabinet, line ministries, agencies and other organs); and
iii. ***External*** accountability – relationships between governments and international entities.

8.2 The scale of governance shortfalls

8.2.1 Measuring governance

The lack of clearly defined methods makes measuring governance a difficult task although recent efforts have analysed indicators at the national level[41]. Even with these indicators at hand, however, measuring governance within individual sectors (e.g. forestry sector) and specific geographic areas (e.g. southern Tanzania) is a challenge.

Leading on from the earlier definition of governance as *"the manner in which power is exercised in the management of a country's economic, social and natural resources for development"*, one potential measure is described as the ***fiduciary contract***[42]. The Fiduciary Risk Assessment conducted in Tanzania summarised that *"the overall problems however remain those of a weak fiduciary contract between citizens and the*

[41] For example, the *2005 Afrobarometer survey* revealed the Tanzanian public showing relatively negative attitudes towards economic reforms, but more positive opinions regarding democracy and good governance (Chaligha, 2005).

[42] The Fiduciary Risk Assessment conducted by DFID in 2004 on behalf of PRBS donors described the *"fiduciary contract"* as *"…a reciprocal relationship of accountability between citizens and the state in which services are provided by the state in exchange for financial contributions from citizens"* (Rutashobya, 2004).

state, inadequate domestic revenue collection, limited delivery of public goods, inadequate monitoring, inefficient capacity, non-compliance, lack of enforcement, and inadequate oversight" (Rutashobya, 2004).

Working on the Cooksey (2005) definition of governance as the *"capacity of the state to turn taxes into equitable and social and economic services and the maintenance of law and order"*, two feasible measures of governance include the level of ***tax compliance*** (revenue collected as timber royalties) and the level of ***legal compliance*** (legality of timber harvesting and trade). In reality, these two measures are closely linked, with illegal trade easily the largest cause of lost revenues in southern Tanzania (see chapter 8.2.3). The end result of lost revenues is a lower resource base to *"convert into equitable social and economic services"*. In addition, ***corruption ratings*** offer another useful indicator of governance in the forestry sector (see chapter 8.4).

8.2.2 Legal compliance in logging and timber trade

Defining illegality and its scope

A focus on illegal logging activities is warranted by not only the financial implications (e.g. lost government revenue, undercutting legal prices), but also damaging effects on peoples' livelihoods and governance structures. The definition of illegal logging used in this report is *"the contravention of national or international law at any point along the trade chain from source to consumer"*.

Analysis of the levels of illegality and infractions is hampered by the lack of standardised data and almost complete absence of information on influencing factors needed to interpret raw seizure data. For example, it is not possible to infer trends or causal relationships merely from increasing numbers of timber seizures without relating to the varying levels of law enforcement effort. Nevertheless, both *quantitative* and *qualitative* measures were used to investigate levels of legal compliance with timber trade in southern Tanzania.

Qualitative assessment of the scale of legal compliance

According to stakeholders' perceptions[43], ***infractions involving round wood occurred at the highest levels during harvesting and export*** (Table 24). The most serious instances of ***breaching authorisation*** (e.g. contravening the terms of a harvest permit, transit pass or export permit) occurred to enable the harvesting or trade in unauthorised species, quantities, product types or source areas (Table 24).

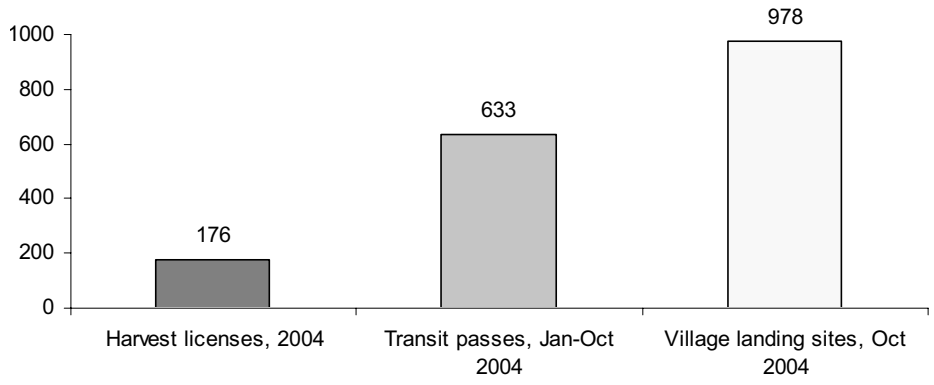
[43] Interviews were held with 87 stakeholders (45 traders, 38 government, and four non-governmental organisations).

Timber trade may also occur in the ***absence of all the required documentation*** (or using fake or modified documentation; Table 24). For example, very few traders operated with *all* the necessary documentation to prove legal harvest and ownership of timber (namely a Certificate of Registration, Trader's Licence, Tax Clearance Certificate, Timber Harvesting Licence, and associated government receipts). Instead, a large proportion of traders operated solely with a timber harvest licence. At the same time, there were many traders who harvested, transported and sold timber without *any* documentation at all. FBD statistics collected from checkpoints in Coast Region and Dar es Salaam showed a quarter lacking a licence, a figure considered an underestimate due to vehicles passing unrecorded at night and using unauthorised routes (Mbonde, 2005).

It is clear from Table 24 that ***exceeding authorised quantities is a type of infraction that occurred at high levels at all three stages of the hardwood round wood trade chain*** – harvesting, transfer and export. This phenomenon is aptly illustrated by a comparison of different data sources for *Swartzia madagascariensis* in Kilwa District during 2004 (Figure 29). It is clear that officially sanctioned harvest volumes during the whole of 2004 were barely a fifth of the volume actually harvested in just two-months[44]. A large discrepancy also existed between volumes officially sanctioned on harvest licences and on transit passes, implying the multiple uses of harvest licences. A similar situation existed in Rufiji District for three other popular hardwood species at that time – *Millettia stuhlmannii, Baphia kirkii* and *Pericopsis angolensis*.

Figure 29

Unauthorized harvest volumes (m^3) of *Swartzia madagascariensis* in Kilwa District, 2004



Source: MNRT landing site inspections and Kilwa District harvest licences and transit passes, 2004.

[44] It is particularly disturbing to find such high levels of discrepancy (illegality) for a species which up until 1st July 2004 was *legally* allowed to be exported as round wood. One would normally expect such high levels of illegality with banned species or products.

Of concern was the perceived ***increasing trend in illegal activity affecting several serious types of infraction***, including logging without documentation[45], logging in unauthorised areas, and the use of invalid export documentation (Table 24). Other infractions deemed to be increasing in severity were the use of fake hammers (used by forest officers to punch serial numbers onto legally harvested wood) and nocturnal transport. Indeed, many traders claimed that the deliberate, deceitful alteration[46] of timber goods was on the rise in response to the increased likelihood of detection of irregular, unaltered consignments and associated risks (e.g. fines, bribery payments).

On the other hand, the illicit transport of timber using unauthorised routes was perceived to be declining (Table 24). This is speculated to be due to a combination of logistical and economic factors: firstly, it was increasingly difficult for the largest logging trucks to bypass official checkpoints *en route* to Dar es Salaam because of longer sections of renovated and raised road, as well as poor off-road track conditions; and secondly, the larger log consignments often made it financially worthwhile for traders carrying unauthorised goods to pass through road checkpoints and risk the prospect of fines or bribery payments.

Credit: Simon Milledge/TRAFFIC

Arrow-shaped hammer mark indicating illegal timber

Quantitative assessment of legal compliance

One ***major problem in determining legality of timber trade in southern Tanzania was fraudulent legalisation***, also known as 'rubber stamping'. In these instances, illegally harvested timber products were issued official documentation somewhere along the trade chain that effectively rendered them legal on the market (Figure 30). As to be expected, these were also the instances of high levels of bribery (see chapter 8.4.3). The further one moved along the trade chain, the stronger the likelihood that fraudulent legalisation may have taken place. It was therefore better to measure or establish legality as *near* to the forest (source) as possible. Further challenges to defining a breach of the law included possible conflicts between customary and formal laws, and difficulty in differentiating between a significant and minor transgression.

[45] As an example, closer analysis of harvesters operating in 15 villages revealed 11% holding harvest licences.

[46] Deceitful alteration may involve the alteration of the timber product itself or accompanying documentation. Examples include debarking to disguise similar-looking species (common with *Millettia stuhlmannii* and *Pericopsis angolensis*), using fake hammers and removing 'illegal' hammer marks. Smuggling – including the use of unauthorised routes and concealment – may or may not occur in conjunction with deceitful alteration.

Table 24

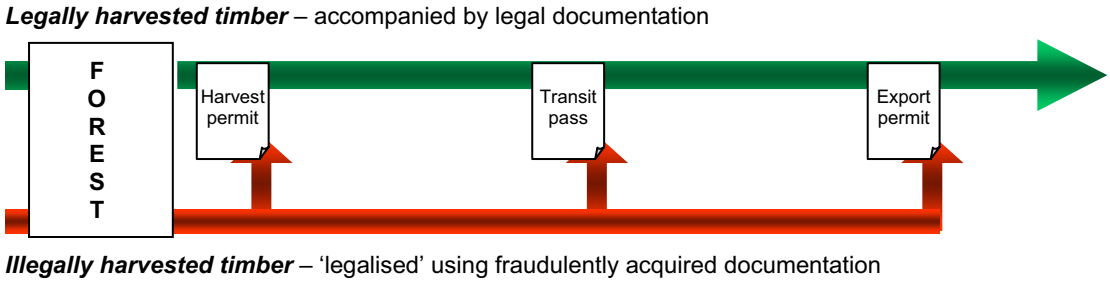
Perceived scale of infractions involving round wood harvests, transport and export

Stage of trade	Description of infraction	Perceived scale of illegal activity (Low → High)	Trend
Logging	Logging without documentation	1 2 3 4 5	⇧
	Use of invalid harvest licence	1 2	⇔
	Use of fake/tampered harvest licence	1 2 3	⇔
	Multiple use of harvest licence	1 2 3	⇔
	Logging in unauthorised area [α]	1 2 3 4 5	⇧
	Logging unauthorised species [β]	1 2 3 4 5	⇔
	Logging unauthorised product type	1 2	⇔
	Logging undersize trees	1 2 3 4	⇧
	Logging in excess of authorised quantities	1 2 3 4 5	⇔
Transfer	Transfer without hammer marks	1 2 3 4	⇔
	Use of fake hammer mark	1 2	⇧
	Transfer of timber marked as illegal	1	⇔
	Transfer without transit pass	1 2	⇔
	Use of invalid transit pass	1 2	⇔
	Use of fake/tampered transit pass	1	⇔
	Multiple use of transit pass	1 2 3	⇔
	Use of unauthorised route [γ]	1 2 3	⇩
	Transport of unauthorised species	1 2 3	⇔
	Transport of unauthorised products type	1 2	⇔
	Transport of unauthorised quantities	1 2 3 4 5	⇔
	Nocturnal transport	1 2 3	⇧
Export	Export without export documentation [δ]	1	⇔
	Use of invalid export documentation [δ]	1 2 3 4 5	⇧
	Use of fake/tampered export documents [δ]	1 2	⇔
	Multiple use of export documentation [δ]	1	⇔
	Export of unauthorised species	1 2 3 4 5	⇔
	Export of unauthorised product type	1 2 3 4 5	⇔
	Export above authorised quantities	1 2 3 4	⇔
	Undervaluation of timber goods	1 2 3 4	⇔

Notes: [α] Unauthorised area includes protected areas; [β] Unauthorised species includes protected species; [γ] Unauthorised route includes bypassing checkpoints; [δ] Export documentation includes FBD, customs, shipping and banking documentation. Several other types of infraction were not included in the analysis due to low sample sizes, including the transport of timber within locked containers and the transport of newly felled timber in place of old.

Figure 30

'Fraudulent legalisation' of illegally-harvested timber products



Quantification of the legality of timber trade in southern Tanzania therefore focussed near the point of harvesting to avoid the problems of fraudulent legalisation. The difference between *official* harvest volumes (i.e. derived from harvest licences and transit passes) and *actual* harvest volumes (i.e. independent physical counting of trade along different routes and involving different products) was one indication of illegal harvest levels (Table 25). During the period from July to August 2004, it was reliably estimated from village landing sites that 28 350 m^3 of logs were *actually* harvested from the entire study area (see chapter 6.1.2). Rufiji and Kilwa Districts accounted for two-thirds (66.5%) of all these logs, equivalent to some 18 200 m^3. However, during the same two-month period, the *official* harvest licence data totalled just 777.2 m^3 (Figure 31). In other words, **the *official* timber harvest volumes were equivalent to just four percent of the *actual* volumes.**

Table 25

Measures of estimated legality in timber trade, 2004

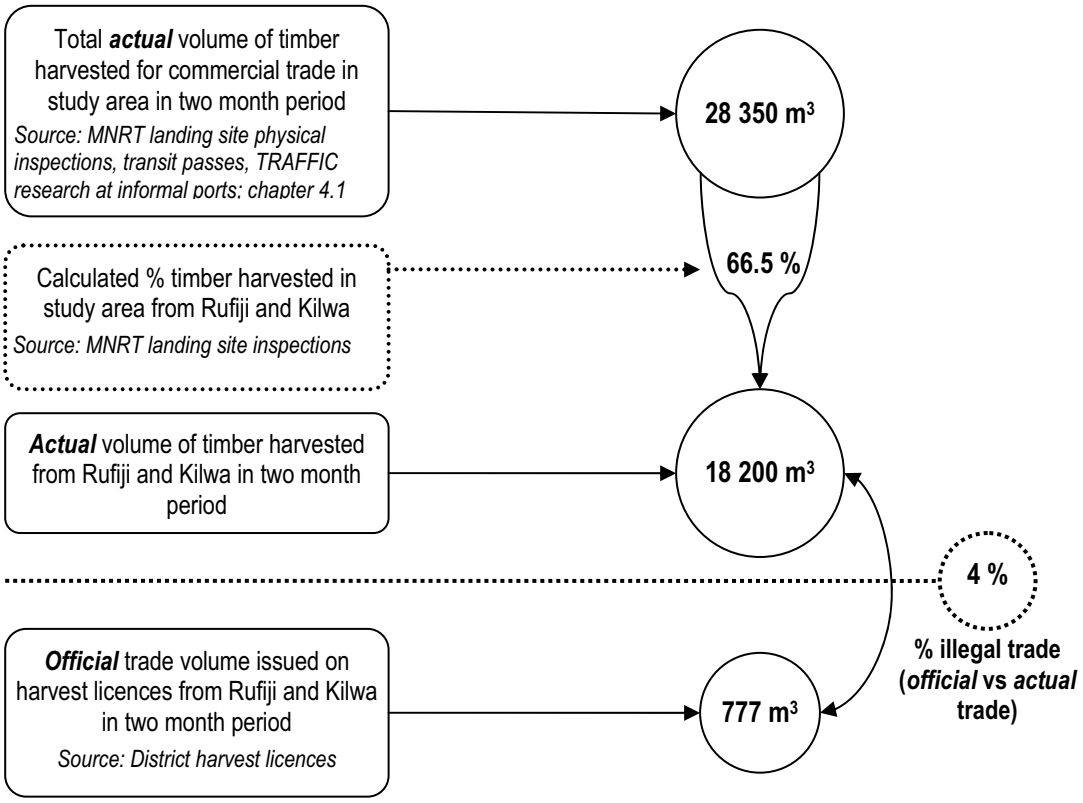
Method of measurement	Legality	Caveats
Comparing actual (i.e. observed trade) and official (i.e. licences) harvest volumes	4%	Estimate does not include sawn timber sold illegally at urban outlets in Mtwara or Lindi
Verification of legality (supporting documentation) of logs at village landing sites	<18%	Estimate does not include logs left in forest, sawn timber transported through informal ports or sawn timber sold illegally at urban outlets

Another measure of irregular harvest was estimated by analyzing the results of the landing site inspections conducted by the MNRT during July and August 2004 (Table 25). In Rufiji District, which accounted for the majority of logs inspected throughout southern Tanzania, only 18% of the 5838 m^3 logs inspected were accompanied by legal harvest licences. As to be expected, this figure of 18% was higher than the four percent calculated above, since the latter included consideration of pitsaw activities in the forest and transport of sawn wood by bicycle and dhow (Table 25). The figure of ***four per***

cent legality is deemed the most accurate assessment of timber harvesting in the study area during mid-2004, and closely matches estimates provided by many forest officials.

Figure 31

Estimating illegal harvest rates using *official* and *actual* harvest data



Temporal trends in legal compliance

Levels of illegal activity in the study area rose between 2001 and 2004, as reported by almost all stakeholders and supported by available trade data. As noted above, levels of legality were as low as four per cent in mid-2004. Prior to completion of the Mkapa Bridge in 2001, the volume of timber issued on harvest licences throughout the study area amounted to only 23% of all round and sawn wood moving northwards across the Rufiji River or shipped from major ports[47] (Milledge *et al.*, 2005c). Further, this figure of 23% was believed to be an over-estimate since it did not take into account construction timber sold in urban markets nor that shipped by dhow from informal ports (Table 26). At around the same time, the Rufiji District Forest Task Force estimated that official wood export statistics from Rufiji District reflected a maximum of 20-30% of the actual offtake (Hamerlynck, 2003).

[47] During 2001, licences were only issued for the harvest of 10 163 m3 of round wood from the study area. Over the same period, an estimated 42 000 m3 of timber was transported north over the Rufiji River, and 2420 m³ shipped from the ports of Mtwara, Lindi and Kilwa Masoko.

Table 26

Measures of estimated legality in timber trade, 2001-2002

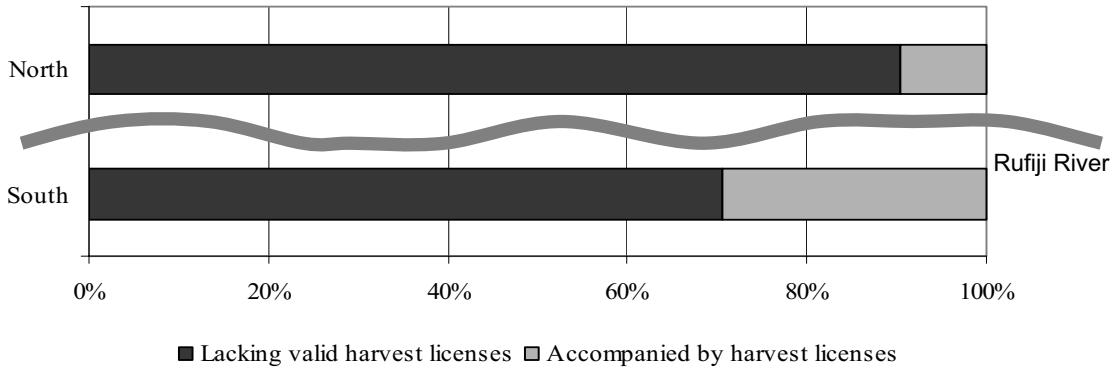
Method of measurement	Legality	Caveats
Comparing actual (i.e. observed trade) and official (i.e. licences) harvest volumes	<23%	Estimate does not include sawn timber sold illegally at urban outlets in Mtwara or Lindi
Estimation by Rufiji District Task Force – unknown methods	20-30%	Not known

Spatial trends in legal compliance

There was an apparent decline in irregular and illegal activity moving southwards. For example, out of the 16 landing sites where more than 100 m^3 logs were inspected in Rufiji District during mid-2004, sites south of Rufiji River (N=5) had a lower proportion[48] lacking harvest licences than those north of Rufiji River (N=11) (Figure 32). Moving further southwards, the level of irregular and illegal activity in Nachingwea District was lower than Rufiji District, with 70% of 545 m^3 of logs inspected at landing sites not hammered. Similarly, figures from Mtwara and Songea Districts, even further south, revealed that logs lacking harvest licences constituted 41% of the 2589 m^3 of logs recorded at landing sites.

Figure 32

Legality of logs inspected at landing sites north and south of Rufiji River, mid-2004



Source: Ministry of Natural Resources and Tourism landing site inspection data, 2004.

[48] Landing sites exhibiting the lowest proportion of logs lacking harvest licences included Kiwanga (39% logs illegal), Chumbi (53%), Nyamwage (60%) and Utete (72%).

Implications of illegal timber trade on tax compliance

The ***under-collection of royalties is a serious fiscal challenge*** to not only FBD, but all levels of government[49]. The 2004 Public Expenditure Review of the environment stated that a "big portion of revenue collections is lost through many illegal means" (VPO, 2004). Most estimates of revenue losses have focussed on the issue of under-collection of royalties. For example, the National Forest Programme estimated that 5-10% of revenue due from forest reserves and public lands was collected (FBD, 2001). A more recent estimate at the national level was 14-28% (SAVCOR, 2005). Previous studies conducted in different parts of the country have revealed similarly low figures for tax compliance for forestry products, ranging from 0.83% for timber, charcoal and fuel wood in Tabora, to 6% and 18% for charcoal in Mtwara and Tanga[50] respectively (Kobb, 1999; Kobb *et al*., 1999). ***Evidence from southern Tanzania in mid-2004 indicated a situation worse than the estimated national average***, with collected revenue representing as low as four per cent of the timber harvested.

The following calculations can be tentatively used to ***illustrate the scale of revenue losses at central and local government levels***. Whilst official revenue statistics showed the equivalent of some USD 217 335 derived from Kilwa and Rufiji Districts between July 2003 and June 2004, the value (based on government royalties) of timber actually harvested from both districts over a one-year period was estimated at around USD 10 million (Table 27). During 2003/2004, these two districts contributed 17% of the total district revenue to FBD from indigenous forests (i.e. not including plantations, mangroves and other projects). Assuming the same level of revenue under-collection applied across the country, it was therefore estimated that FBD lost USD 58 million nationwide[51] during 2003/2004.

Figure 33 provides data for Kilwa District to illustrate how unrealised forest revenues are equally significant at local government level. During 2002/2003, the actual forest revenue accounted for almost 16% of the Kilwa District Council budget. Since actual collected revenue represented (at worst) four per cent of the timber harvested and transported up until mid-2004, forest revenue would have constituted *four times the total budget* if *all* the potential forest royalties had indeed been realized (Figure 33).

---

[49] A review of 68 tax compliance studies gave an unweighted mean level of compliance of 27% (Kobb, 2001). The studies were limited to taxes levied by local governments and Ministries, and did not cover Central Government revenues (which account for 85% of total tax payments in Tanzania) or village taxes.

[50] Studies in Tanga Region in 1998 underlined the difference between actual annual revenue collections from charcoal (TZS 31 million) and potential royalties (TZS 177 million), and further argued that if the same levels of charcoal consumption existed in Dar es Salaam then charcoal royalties there would exceed the total national actual income from forest products at that time (TZS 1.1 billion from July 1997 to May 1998).

[51] This estimate is double the potential revenue collections (TZS 20-30 billion, equivalent to USD 24-36 million) of forest royalty claimed by NFP (FBD, 2001).

Table 27

Potential scale of revenue losses to FBD due to under-collection

Actual FBD revenue (USD equivalent) from Kilwa and Rufiji districts [α]	Total value of timber actually harvested and transported from Kilwa and Rufiji districts [β]	Estimated revenue lost due to under-collection from Kilwa and Rufiji districts	Estimated total annual revenue lost to FBD royalty under-collection nationwide [γ]
USD 217 335	USD 10 067 200	USD 9 849 865	**USD 57 940 382**

Notes: α Official revenue data (Forest and Beekeeping, 2006; TFCMP, 2005).

β The total annual volume of timber actually harvested and transported from Kilwa and Rufiji districts was estimated at 151 008 m3 (derived from two-month field observations and extrapolation during 2003/2004 (see chapter 6.1.2)). The USD value was derived using royalty rate of TZS 70 000 per m^3 and converted at exchange rate of TZS 1050 to USD 1.00.

γ Calculated using known proportion (17%) of FBD district revenue derived from Rufiji and Kilwa Districts during 2003/2004 and assuming that the same level of under-collection occurred nationwide.

Figure 33

Actual and potential contribution of forest revenue to Kilwa District Council, 2002/2003

Source: Field data; REPOA.

Revenue losses as a result of illegal timber trade were not restricted to the under-collection of harvest royalties. Further along the trade chain, significant differences between official export and import statistics to the main destination country, China, highlighted high levels of mismatch. During a three-year period, Tanzanian export statistics amounted to only 11% of the volume of timber imports reported by China, with a proportional loss in revenue from export fees expected (Table 28).

Table 28

Discrepancy between official Tanzania export and China import statistics

Tanzania official total timber exports to all destinations, 2002/2003 to 2004/2005	Estimated total exports to China, 2003 to 2005 [α]	Chinese official timber imports from Tanzania, 2003 to 2005	Proportion of Chinese reported imports recorded as Tanzania exports
19 316 m^3	11 590 m^3	108 505 m^3	10.7%

Note: [α] Some 60% of all timber exports from Tanzania were destined for China during 2003-2004 (chapter 6.2.3).

Source: Tanzania and China government statistics.

Illegal timber trade and corruption

By definition, any involvement of corrupt practices in timber trade means illegality. However, the degree of overlap between illegal timber trade practices and corruption may vary considerably between countries and specific localities. Popular perceptions in southern Tanzania generally indicate that the majority of illegal logging for commercial markets, especially exports, *did* involve corruption (i.e. the sizeable overlap depicted in Figure 34). Overall, 82% of stakeholders interviewed believed in this assertion.

Comparison between perceived levels of *illegality* and *bribery* at different stages of the trade chain show a particularly close connection during the transport and export of irregular products (compare Table 24, Figure 47 and Figure 48). It is apparent that the *movement* of illegal timber products (e.g. exceeding authorised volumes, unauthorised species or products) requires high levels of bribery. On the other hand, while illegal harvesting is very common, relatively low levels of bribery persist (see chapter 8.4).

Figure 34

Apparent high overlap between illegal activities and corruption in the forestry sector

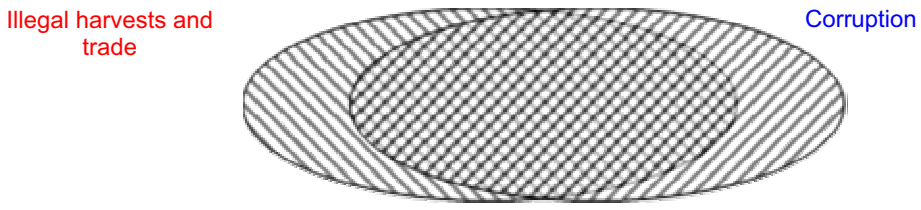


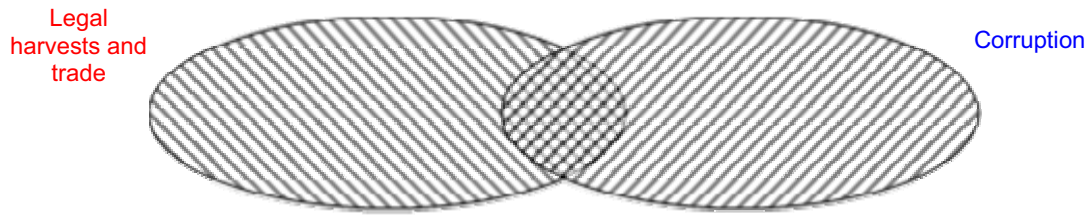
Figure 34 also helps to illustrate how some forms of illegal timber trade activity are *not* linked to corruption. The use of fake documentation without the knowledge of a checking officer is an example of an illegal activity not involving corruption.

Further, the right-hand side of Figure 34 depicts instances of corruption in the forestry sector which may *not* be directly linked to illegal timber harvests and trade *per se*. For example, the retirement of revenues and allocation of payments may be prone to corruption but not involve illegal timber trade.

Whilst seemingly a contradiction in terms, there are also incidences in southern Tanzania whereby *legal* timber trade is tainted with corruption whereby officials expect to be 'rewarded' for simply providing the basic services that they are employed to do (Figure 35). Thus, it is possible for corruption (by definition an illicit act) to affect an otherwise legal trade. For example, whilst the scale of bribery involving legal timber trade activities (e.g. demands for bribes by public officials) was only around one-quarter of illegal activities, it was nevertheless evident at *all* stages of the trade chain (Figure 49; chapter 8.4.3).

Figure 35

Apparent low overlap between legal activities and corruption in the forestry sector



8.2.3 Unintentional causes of royalty under-collection

Under-collection of royalties can also arise on unintentional grounds, such as underestimation of timber volumes or misclassification of species. This is caused by factors such as low motivation, inadequate staffing levels or insufficient skills. Direct quantification of the unintentional causes of royalty under-collection is generally not feasible. However, it may be deduced by comparing estimates of *intentional* causes (i.e. illegal trade and corruption) with estimates of the *combined* effects of intentional and unintentional causes.

Estimates of illegal trade have already been presented – increasing from 77% in 2001 to 96% in mid-2004. A measure of the combined effects of intentional and unintentional (i.e. capacity-related issues) factors can be measured at road checkpoints where both factors play a role in the under-collection of royalties. Such an analysis was conducted at Kibiti, the primary road checkpoint between southern Tanzania and Dar es Salaam, during a three-month period between October 2001 and January 2002 (Milledge *et al.*, 2005c). Comparison of the timber volumes *recorded* at the checkpoint and *actual* timber volumes counted during covert roadside observations allowed a measure of the combined effects of intentional (e.g. underdeclaration of goods, bypassing checkpoint, corruption) and unintentional (i.e. capacity-related issues). It was found that 77% of the timber moved northwards over the Rufiji River were not actually recorded at Kibiti checkpoint (Table 29). The majority of this discrepancy was due to unrecorded sawn wood.

It is notable how this estimate of the combined effects of intentional and unintentional factors (77%) was the *same* as the independent estimate of illegal harvests at the same time, implying a relatively low (if not negligible) contribution of capacity-related factors towards governance shortfalls. Whilst clear capacity shortages are evident in the study area (see chapter 8.3.2), it appeared that different types of ***illegal activity were accounting for almost all the unrecorded trade and revenue losses.***

Table 29

Round wood (m^3) passing through Kibiti, 15th October 2001 to 14th January 2002

Timber product	Official checkpoint records	Actual volume observed in transit	% recorded
Sawn wood	1 570	10 850	15
Round wood	1 300	1 370	95
Total	**2 870**	**12 220**	**23**

Source: Milledge *et al.* (2005c).

8.3 Institutional roles, relationships and capacity

8.3.1 A theoretical framework for mapping players involved in timber trade

One of the first steps towards understanding institutional relationships in any timber trade is to 'map' the different players involved, which requires insight in two important dimensions: the *stage* of trade and the *role* of the player. Further, institutional relationships may differ according to the precise *type* of trade. For example, the players involved in log exports (and their relationships) vary depending on whether the logs come from plantations or natural forests. Similarly, there are differences in institutional relationships between an export-orientated business and one targeting domestic markets.

Figure 36 provides an illustration of the main role players concerning *indigenous* (i.e. logs from natural forest) hardwood *exports* from Tanzania, who can be broadly divided into three categories according to their primary role, namely *'traders'*, *'service providers'* and *'regulators'*.

In this simplistic representation, it is possible to visualize the degree to which different players interact by observing the horizontal and vertical linkages. For example, the majority of harvesters will require the *services* (a 'vertical' relationship in Figure 36) of additional labour and transport to assist the movement of logs from the forest to a centralised point, a landing site. Where good governance prevails, the harvesters would also be subject to the *regulatory* functions of local government administration (e.g. village environmental committee or forest official). Of course, harvesters would be interacting with the next player in the timber trade chain such as a middleman (a 'horizontal' relationship in Figure 36) and sometimes there would again be reliance on government in the form of *regulators* to ensure legality during the exchange of timber.

In the same way, there is interaction and interdependence amongst all the other players although in reality many more exist than are depicted in Figure 36 (e.g. trader associations, auditors, other interest groups such as community-based/non-governmental organisations). Another complication lies in the fact that some traders *double up* as service providers, such as middlemen who also own trucks, or exporters who own and manage sawmills. Institutional relationships are convoluted by internal linkages –

formal and informal – between players who at first glance would appear to be competitors. For example, middlemen may collaborate to hire log transport, exporters may buy timber from each other to meet common goals, while clearing and forwarding agents may trade container space to ensure goods are shipped. The formation and membership of associations clearly increases the scope for internal linkages through common interests. An added layer of complexity in understanding institutional relationships arises from prominence and patronage. Players active at later stages of the trade chain (i.e. those on the right-hand side of Figure 36) are normally able to influence other players through their seniority, wealth and status. Similarly, patrons of larger investments tend to have influence extending throughout the trade chain.

Figure 36

Diagram representing the players involved in timber exports within Tanzania

CATEGORY OF ROLE PLAYER	STAGE OF TIMBER TRADE →				
	FOREST	ROUTE	SAWMILL	DEPOT	PORT
TRADER	LOGGER	MIDDLEMAN	MIDDLEMAN		EXPORTER
SERVICE PROVIDER	TRACTOR OPERATOR LOADERS	TRUCK OR BOAT OWNER	SAWMILL OWNER	DEPOT MANAGER FORWARDING AGENT	SHIPPING AGENCY CLEARING AGENT
REGULATOR	LGA-DFO VILLAGE LEADERSHIP	CHECKPOINTS (MNRT/LGA)	MNRT-FBD LGA-DFO	MNRT-FBD	MNRT-FBD CUSTOMS

Clearly, another type of trade scenario would invariably have different, or additional, players. For example, a mapping exercise for sawn wood sold on domestic markets would require the addition of retailers, whilst references to ports would become redundant.

This kind of institutional relationship mapping exercise is a useful basis for trying to understand governance in the timber sector and highlighting how ***good governance at any stage in the trade chain may require the collective inputs of several interacting players***. This is a departure from a common viewpoint whereby good governance is based around a simplistic public – private sector relationship.

8.3.2 Public sector capacity

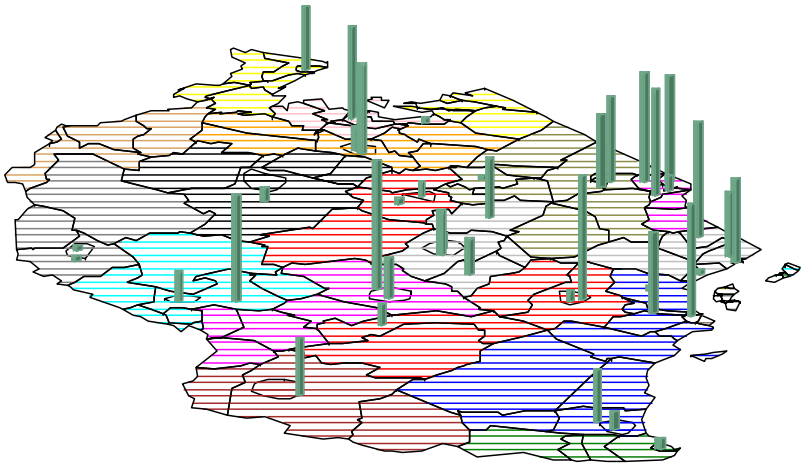
Human resources – central government

Low staffing capacity (and motivation) has frequently been cited as a critical factor affecting FBD performance (Dallu, 2006; DPG, 2006; FBD, 2001; Mbonde, 2005; Mkeya, 2004; Milledge *et al.*, 2005c; SAVCOR, 2005). Mid-term prospects for improvement remain bleak with the "*number of officers under age of 35 years still small*" (Ishengoma, 2004). There is limited recruitment and, in general, low incentives to attract new professional foresters.

A comprehensive overview of the existing human resource capacity was conducted by the Tanzania Forest Conservation and Management Project (TFCMP) in 2004 (Ishengoma, 2004). At that time, forestry staff[52] included 1758 under the FBD (not including support staff), 39 in Regional Secretariats and 969 employed by District Councils. In reality, the MNRT has justifiably allocated a much higher staffing priority to catchment forests. In comparison to the rest of the country, very few staff were operational in western and southern Tanzania (Figure 37; Table 30).

Figure 37

Geographical distribution of FBD human resources, 2003



Source: Rytkönen (2004).

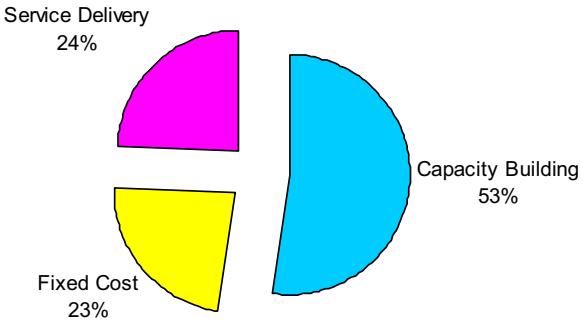
Within FBD, the 607 professional and technical forestry staff included 47 Senior Forest Officers, 62 Forest Officers, five Principal Assistant Forest Officers, 165 Senior Assistant Forest Officers and 300 Assistant Forest Officers. FBD forest officers and senior management were relatively well skilled, holding a total of 67 Bachelors, 49 Masters and six Doctorates, with all principal forest officers, assistant directors and the director holding at least a Bachelors degree. However, the majority of forest assistants

[52] Not including beekeeping staff.

were under qualified and according to two official sources[53] the FBD still had a staff deficit of some 1380 forestry degree, diploma and certificate holders (Ishengoma, 2004). More recently, the TFCMP noted that FBD had a shortfall of 17% and 57% of professional and support staff respectively (TFCMP, 2005). Over half of FBD expenditures during 2003/2004 were spent on capacity building (Figure 38).

Figure 38

FBD expenditures, July 2003 – June 2004



Source: World Bank (2005b).

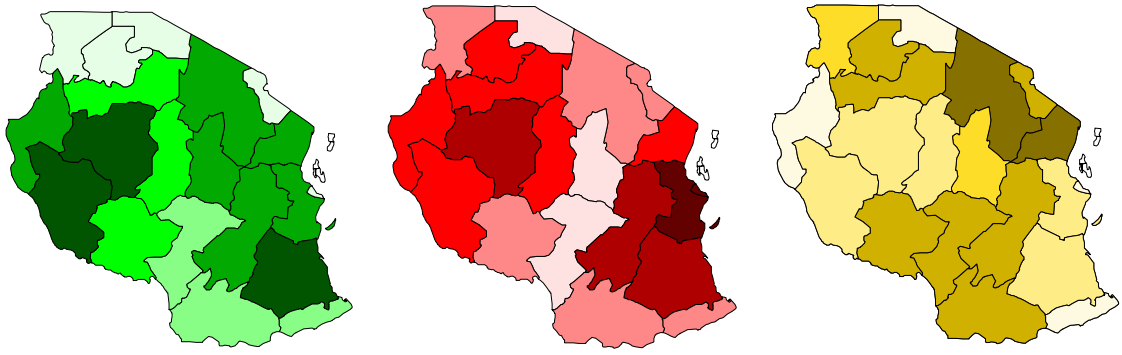
Human resources – local government

Whilst the spatial pattern of forest revenue targets closely matches forest area, there was an apparent mismatch in terms of local government forestry staffing levels (Figure 39).

Figure 39

Geographic variation in forest area, revenue targets and staffing capacity

(a) Total forest area **(b) Forestry revenue targets, FY04** **(c) Local government forestry staffing levels**



Note: Darker shading represent higher values.

[53] A TFS business analysis report and a FBD job list prepared by the President's Office, Public Sector Management.

There is a gradual devolution of responsibility and human resources to LGAs where the forests occur, with the MNRT playing stronger governance and national co-ordination roles. However, since the local authorities have a general administrative mandate, they often have a very limited professional capacity available on forestry matters. Out of a nationwide total of 969 staff employed by District Councils during 2004, more than half were assistants lacking formal training. At that time, District Councils had an overall deficit of 237 Senior Forest Officers, 1180 Forest Officers and 2114 Assistant Forest Officers (Ishengoma, 2004).

Despite recent efforts to employ additional staff, ***both central and local government structures throughout southern Tanzania may be characterised as having a very low staffing complement dedicated to forest management*** (Table 30). For example, as of December 2005, only one forest officer was employed in the whole of Liwale District, the largest district in the study area in terms of absolute area and forest cover. Indeed, ***Coast and Lindi Regions have particularly low staffing levels in terms of both forest coverage and anticipated forest product revenues*** (Figure 39; Table 30).

Table 30

Forestry staffing levels in selected Local Government Authorities, southern Tanzania

Region	Forest Reserve area (ha)	District Councils				Regional Secretariats	
		Actual number of staff (and required [α])		Area (ha) per person		Actual number of staff	
		FO	AFO	FO	AFO	FO	AFO
Coast	307 283	1 (31)	14 (61)	307 283	21 949	0	0
Lindi	591 433	2 (59)	14 (118)	295 717	42 245	1	0
Mtwara	57 248	1 (6)	11 (11)	57 248	5 204	1	1
Ruvuma	550 841	4 (55)	21 (110)	137 710	26 231	0	2

Notes: FO=Forest Officer; AFO=Assistant Forest Officer; SFO=Senior Forest Officer.
[α] Based on Forest Officer expected to manage 10 000 ha and Assistant Forest Officer 5000 ha.

Source: President's Office-Public Service Management, August 2003; Ishengoma, 2004.

The declining trend in staff capacity is well illustrated in Lindi Region, where up until 1998 a Regional Forest Officer (RFO) co-ordinated five districts, supported by five forest officers and three or four Assistant Forest Officers per district. During 1995/1996, Lindi Region contributed the most forest-related revenue in the country. Following restructuring, the RFO was disbanded and the MNRT essentially lost a lot of control over forest management at the district level. This situation occurred not only in Lindi Region, but nationwide.

Whilst some stakeholders argue that a higher level of oversight by MNRT is not in the spirit or interests of ongoing decentralisation, it is clear that greater devolution of

responsibilities to district level did not prevent the large-scale, uncontrolled timber harvesting and trade witnessed throughout 2003 and 2004.

Dual ministry mandates and linkages

The need for clearer mandates, rights, roles and responsibilities and institutional set-up between MNRT and PMO-RALG on the one hand and local governments on the other, to strengthen links between central and local government was raised during the *National Forest Programme* preparatory stages (FBD, 2001). Despite this recognition, the challenges of decentralisation and dual institutional arrangements continue to plague the forestry sector. A recent audit of FBD revenue collection performance again highlighted problems with the fragmented structure of forest administration, with *"dual reporting relationship at the district and regional levels leading to the loss of chain of command in the administration of forest resources"* (SAVCOR, 2005).

Specific challenges of dual ministry co-ordination and implementation of forestry sector activities include low awareness of the dual ministry structure, mixed objectives and priorities, differing capacities and separated reporting lines. Most interviewed stakeholders, including forest staff and district administrators, ***did not clearly understand the dual ministry administrative setup for forest management and utilization in the country***. Indeed, stakeholder consultations held in 2004 revealed that only one interviewee was able to clearly outline the entire dual ministry administration according to the form presented in the *National Forest Programme* (Milledge *et al.*, 2005a). As a result, stakeholders from both ministries may hold polarized, and often incorrect, opinions of one another. This situation is further believed to cause miscommunications.

Credit: Antje Ahrends

Insufficient staffing has resulted in low forest presence

One long-standing ***area of potential conflict of interest is the interpretation of annual targets***. At local government level, a very strong emphasis has been traditionally placed on reaching (and preferably exceeding) *minimum* annual revenue collection targets. Some local government authorities did not see any problem with surpassing these timber revenue collection targets; this view was also shared by some, but not all, FBD administrators. As a result, there was pressure placed on most forest officers in the study area to issue licences as a means to increase revenue to the district. However, the majority of foresters based at FBD did recognize the technical importance of maintaining *upper* limits to harvest volumes based on sustainable yield models.

Conflicts in understanding regarding this apparent dichotomy in revenue planning was exacerbated by the fact that despite urging revenue targets to be surpassed, many local government authorities did not reinvest heavily in the forestry sector in terms of development expenditures.

The differing priorities serve to highlight the ***importance of joint planning between both ministries to help ensure effective forest management***. This includes ensuring agreement on not only the same goals or targets that align with relevant national policies, but also ensuring the existence of a clear protocol sharing responsibilities between the two ministries[54]. Otherwise, decisions made by one institution may be in contravention to another's priorities. Importantly, reducing ambiguity regarding roles, responsibilities and priorities is a very important step to reducing corruption. A multi-displainary review of corruption stated that relationships between institutions "*can be corrupted because of overlapping and conflicting authority; political power-struggles over access to scarce resources; manipulated flows of information; and personal relationships of dependence and loyalty*" (Andvig *et al.*, 2000). Indeed, all such factors held relevance with regards to timber trade (see chapter 8.4).

Another challenge of the dual ministry set-up was ensuring discipline amongst forest officers from both institutions, MNRT and PMO-RALG, in particular to reprimand officers in another ministry. This particularly concerns DFOs who are mostly employed by local government and thus more directly responsible to the demands of the DED, although they theoretically report on a monthly basis to the MNRT. Due to existing communication lines, which route all FBD communications through PMO-RALG, it was not uncommon for FBD to receive information on critical forestry issues after relatively long delays, and were further only copied on such correspondence.

The need for adequate supervision, oversight and discipline has become uncomfortably apparent in the past few years. Unfortunately, this situation may become further complicated if and when the TFA becomes operational, with the addition of another administrative layer particularly in revenue collection. The Sector-Wide Approach (SWAp) that donors and the government have been pushing for the forestry sector since 2003 holds potential to address some capacity and management aspects.

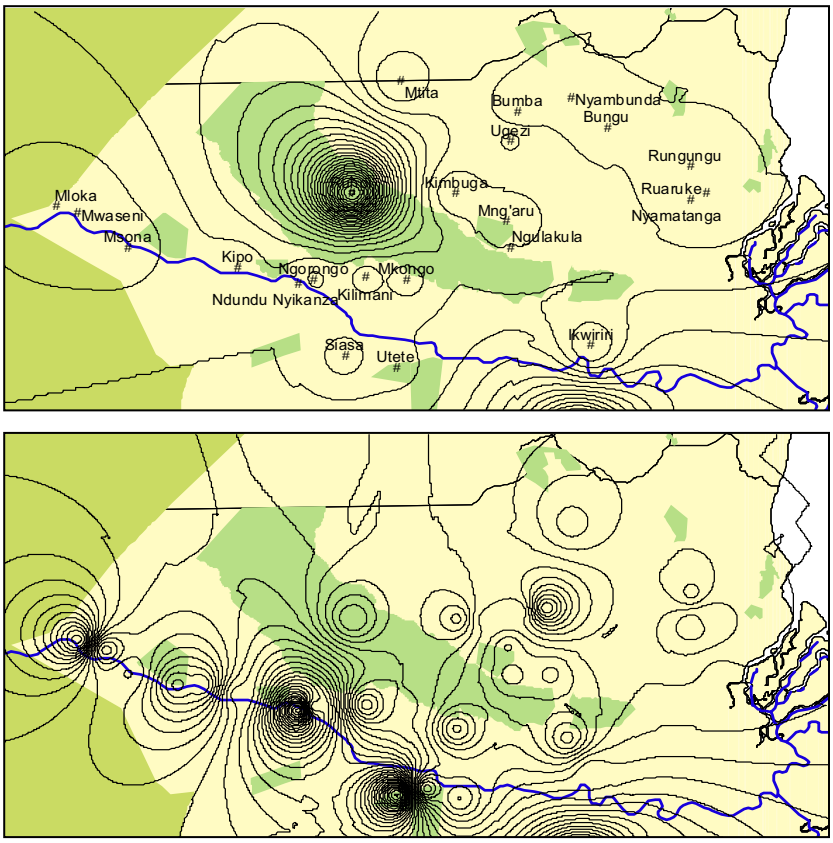
[54] Differences of opinion in key aspects of forest product trade management (e.g. the preparation of harvest plans, issuance of harvesting licences, establishment of sawmills, and revenue sharing) led to significant numbers of interviewed stakeholders arguing that increased oversight by MNRT is now justified.

Challenges of multi-tasking

One obvious ***consequence of limited human resource capacity in the forestry sector is that performance is suboptimal*** as limited numbers of staff are skilled in multi-tasking. However, another ***more serious consequence of multi-tasking in the forestry sector is the potential for large abuses of power***. For example, it was not uncommon for a single forest officer in southern Tanzania to perform the following duties: revenue target setting; issuance of harvest licences; verification of licences and consignments; revenue collection; revenue submission and reporting; tree, stump and log marking and hammering; checkpoint supervision; technical reporting and various other coordination and administrative tasks. This scenario continued even in places where millions of Tanzanian shillings were transferred daily. One such example was given in an earlier version of the Rufiji District timber harvesting plan (Anon., 2004).

Figure 40

Comparison of timber harvesting intensity (m^3) in part of study area, mid-2004



(a) according to issued harvest licences

(b) according to actual harvests

Source: Harvest licences; MNRT landing site inspection data.

To confuse matters, by ensuring 'capacity constraints' – often quoted as the primary reason for under-performance – some (but not all) local government authorities had guaranteed an environment whereby excessive multi-tasking and lack of oversight

continued hand-in-hand to the benefit of just a few individuals. In other words, ***multi-tasking was not always an artifact of capacity constraints, but could be one of corruption***. As an illustration of the difficulty in separating these two consequences of limited human resource capacity, Figure 40 highlights the difference in harvesting patterns according to issued harvest licences and actual trade patterns in an area of southern Tanzania. Was the difference a result of traders simply harvesting in unauthorized areas with incapacitated forest officials unable to enforce? Or did it illustrate DFOs deliberately mis-reporting harvest areas on issued licences to ensure a higher proportion of income to the LGA? Or perhaps there was collusion between the licencee and DFO during issuance of the harvest licence? In reality, *all* three scenarios actually occurred.

Many stakeholders promoted increased regional capacity, under the auspices of MNRT, to allow follow up with district officers to ensure implementation of harvest plans and proper conduct. For example, it was argued that this level of supervision could have prevented the scenario witnessed in June 2004 whereby forest officers in Kilwa and Masasi Districts issued large quantities of harvest licences at the end of June, a totally unrealistic expectation considering the proximity to the end of the financial year and enactment of the new *Forest Act (2002)*.

8.3.3 Rural community involvement

Participation of rural communities in forest management

The high percentage of unreserved forest and the high forest cover per capita in southern Tanzania are indicative of ***rural peoples' heavy dependence upon forest resources*** in the form of food, housing, fuel, medicines and income. For example, Lindi Region has the largest area of unreserved forest in the country (around 3.75 million hectares). Indeed, most forests are surrounded by villages that could therefore contribute to their sustainable management through participatory forest management (PFM).

The ***legal backing for PFM in Tanzania*** is provided through the *Forest Act of 2002* (enabling local communities to declare and gazette forest reserves), the *Village Land Act of 1999* (enabling registration of village land in recognition of customary tenure rights) and the *Local Government Act of 1982* (enabling establishment of village by-laws covering forest access and use). ***In addition to stronger ownership rights, a range of economic incentives encourage adoption of four possible management arrangements*** – Village Land Forest Reserves (managed by entire community), Community Forest Reserves (managed by a group), Private Forests (managed by an individual household) and Joint Forest Management Agreements (involving forest land owned by central or local government). Legal requirements for these four arrangements are summarised in recently drafted CBFM guidelines (MNRT, 2006).

By June 2006, over 3.6 million hectares of forest were under local management involving more than 1800 villages on mainland Tanzania (FBD, 2006). Compared to other parts of the country, ***PFM in southern Tanzania is relatively young*** and is envisaged to help the issue of low government capacity. By 2005, PFM areas included five gazetted Village Forest Reserves (Mtanza-Msona, Mbunju-Mvuleni, Tawi and Mbwara in Rufiji District, and Hangai in Liwale District) and four joint management areas (Kitope Forest Reserve in Kilwa District, involving MNRT and three village governments, Marendego, Kinjumbi and Somanga Simu; and Maposheni Forest Reserve in Songea District, involving one village government and Local Authority). In addition, two villages in Rufiji District and a further six in Kilwa District were managing mangrove forest jointly with MNRT. Several other areas were under JFM development. More details of PFM arrangements were given in Milledge *et al.* (2005a).

Participation of rural communities in timber trade management

Since February 2004, local communities have been further empowered in timber trade management, specifically in their ***involvement with licence application procedures and harvesting supervision***. Traders are required to submit timber harvest applications to village governments neighbouring the harvest area. Following approval, Village Executive Officers submit village government minutes to the relevant DFO. The forest officer may then issue a harvest licence according to the approval by the village governments, providing the customer has paid all necessary fees. The customer is subseqeuntly required to show this licence to the respective village governments who, together with forest officers, supervise the harvesting. Village governments therefore have the power to refuse any removal of forest produce where relevant documentation is lacking.

In addition to technical capacity constraints, three main issues limited the effectiveness of this relatively new arrangement. Firstly, ***agriculture consumed significant portions of villagers' time*** and often overrode the necessity to supervise harvesting. Secondly, there may have been ***competing interests with those village leaders*** (local government and/or political party representatives) who were inherently involved in timber trade itself, usually in the supervision of logging operations on behalf of a middleman trader (especially where trucks were allocated to a particular village). It is therefore important to empower villagers to demand for transparent processes regarding local and central government timber management. Thirdly, in the ***absence of effective communications between village and district levels***, the participation of local communities was seriously compromised, providing a loophole for illegal timber harvesters.

8.3.4 Forest industry involvement and investment

Rural participation in harvesting

The majority of loggers (and pitsawers) working in southern Tanzania originated from nearby rural areas, operating a large manual saw in pairs to fell up to ten trees per day. To date, there had been no assessment of either the absolute numbers of rural people involved in logging activities, or the proportion of village communities involved.

Absolute numbers of harvesters were obtained from 13 randomly selected villages (Table 31). Two other sources of information were used to make proper sense of these numbers - village demographic data and timber trader profiles. The profile of timber product traders operating in Rufiji District between October 2001 and January 2002 showed that ***men constituted 98% of log traders*** and 79% of plank traders. Further, it was revealed that ***almost all timber traders were aged between 19 and 45 years old*** (the oldest age was 80), with 84% in the range of 26 and 40 years old (Milledge *et al.*, 2005c). Whilst comparable data was not available for other parts of southern Tanzania, these figures were believed to be fairly representative for the entire area. The 2002 population and housing census provided a breakdown of village age and sex distribution (NBS, 2005a,b,c). It was therefore estimated that the ***percentage of men aged between 19 and 45 years old (the 'pool' of potential loggers) who were normally engaged in logging activities in these 13 villages ranged between six and 41%*** (Table 31).

Table 31

Demographics for 16 villages in southern Tanzania, and counted numbers of loggers

District	Village	Total population	Total male population	Male aged 19-45	Number of harvesters	% male aged 19-45
Rufiji	Mwaseni	1 397	666	172	35	20.3
Rufiji	Mtanza	1 850	953	254	20	7.9
Rufiji	Ndundunyikanza	1 901	908	231	60	26.0
Masasi	Makulani	2 584	1 234	386	28	7.3
Masasi	Mlingula	2 513	1 197	374	37	9.9
Nachingwea	Kilima Rondo	1 605	814	375	23	6.1
Nachingwea	Mbondo	2 181	1 064	326	33	10.1
Nachingwea	Chimbendenga	1 722	876	273	44	16.1
Nachingwea	Mandawa	997	458	152	30	19.7
Nachingwea	Nakolonji	1 013	502	150	23	15.3
Liwale	Ndapata	411	192	42	17	40.5
Lindi	Ntene	3 140	1 477	493	50	10.1
Lindi	Shuka	712	344	97	15	15.5

Source: TRAFFIC survey data; 2002 population and housing census (NBS, 2005a,b,c).

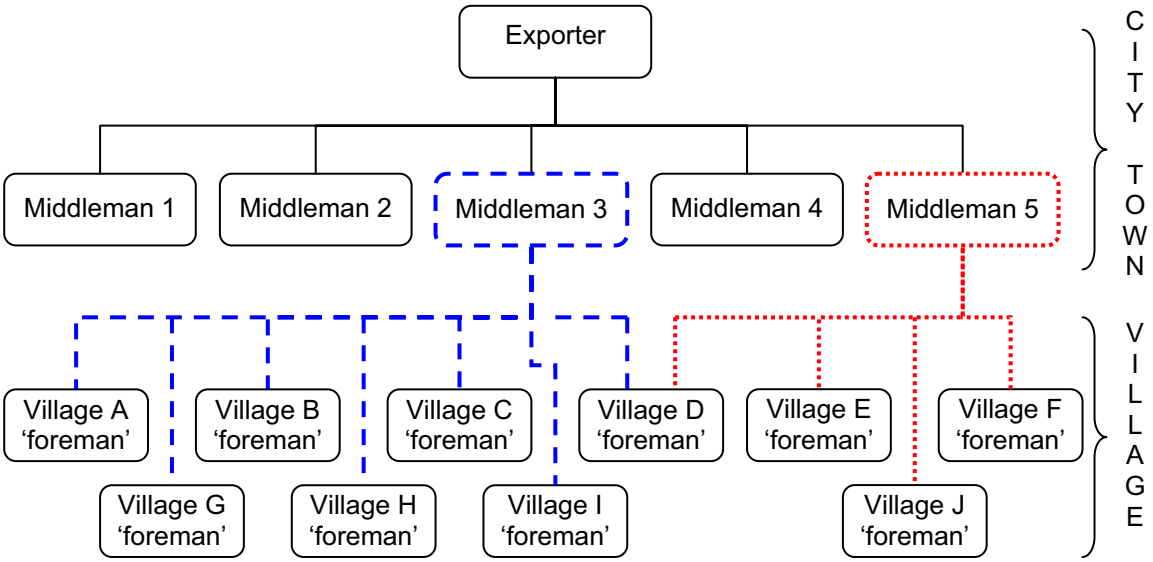
A cursory assessment of beneficiaries from timber trade was recently conducted in Migeregere village, Kilwa District, during 2006 by the Mpingo Conservation Project (MCP). Out of 52 respondents, eight (15.4%) reported their households having receiving money from logging, falling within the same range calculated in the above-mentioned villages (A. Gregory, pers. comm., 2006).

Taking an average of these 13 villages, and in the absence of more accurate data, ***around 16% of households from villages located near forests in southern Tanzania benefitted from logging and timber trade***. It should be remembered that most villages tended to experience 'boom and bust' cycles of timber trade activity, with this figure rising up to 60% during peak logging activity.

At village level, middlemen responsible for coordinating the collection and storage of sawn or round wood were normally prominent members of the local community. In addition to businessmen, it was not uncommon for middlemen to include senior village public officials or political party leaders. Two or three (rarely more) middleman were involved in any given trade route from forest to export, whilst any one exporter relied on five or more middlemen, with each working through up to ten more middlemen at village level (Figure 41). Following transport to urban centers, timber products were taken either to a saw mill, to retailers/wholesalers, or to an exporter's holding ground.

Figure 41

Diagram showing middlemen traders' linkages



During 2004 and 2005, it was common to find two or more companies operating in the same village, and up to twenty operating within any one district. In reality, however, ***relatively few companies maintained strong control over timber trade, either by their***

sheer size of operation or through influence[55]. The numbers of dominant companies who dealt in logs based within major towns in southern Tanzania are shown in Table 32.

Table 32

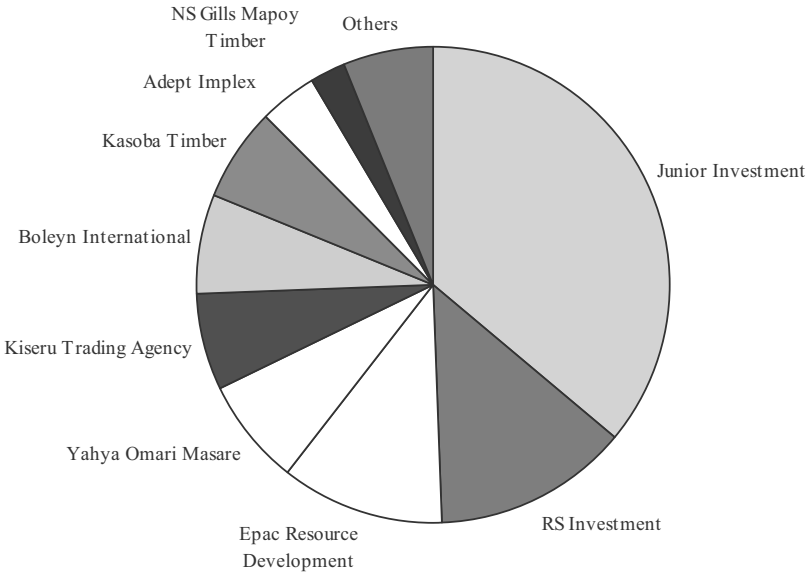
Number of dominant companies dealing in roundwood during 2004-2005

Locality	Companies	Locality	Companies	Locality	Companies
Ikwiriri	6	Kilwa	5	Masasi	4
Kibiti	3	Lindi	4	Mtwara	3
Utete	6	Liwale	3	Nachingwea	4

In Rufiji District, just five companies accounted for three-quarters of the timber whose ownership was established during inspection of landing sites in mid-2004, including two that accounted for almost half (Figure 42).

Figure 42

Proportion of logs inspected at Rufiji District landing sites under different known ownership



Source: Ministry of Natural Resources and Tourism, 2004.

Timber-based processing and investment

According to a 2005 MNRT review, a total of 87 primary hardwood industries occurred nationwide (and 367 softwood), with most found in the east and south of the country

[55] With the exception of UWAMBALI, an association of timber traders in Kilwa District, there was little organization of timber traders in southern Tanzania.

(MNRT, 2005b). The total installed capacity of these hardwood mills was estimated at 458 482 m^3 of logs annually. However, sawmill operators claimed very low utilisation levels (e.g. 17% of installed capacity in Lindi Region), and underlined both low openness and limited compliance to existing regulations (Table 33). Another issue facing the timber processing industry was the low levels of investment into the training of employees[56].

Table 33

Prominent hardwood industries operating in southern Tanzania and Dar es Salaam, 2005

Region	Number of industries	Installed capacity (m^3)	Employment
Dar es Salaam	19	77 986	673
Coast	8	38 964	267
Lindi	4	58 953	287
Mtwara	1	5 022	22

Source: MNRT nationwide evaluation of sawmills (MNRT, 2005b).

In late 2004, a total of ***15 permanent hardwood sawmills were present in southern Tanzania*** with processing capacity varying between 24 and 500 m^3 of logs per month. ***Investment in wood processing and exports within the study area has increased in recent years*** – seven sawmills have started operations since 2002, including five in 2004, causing many of the smaller sawmills to lose business. Rufiji District had the highest number of sawmills[57], situated mainly north of the Mkapa Bridge (Table 34).

Key issues facing almost all sawmills in southern Tanzania were the prevalence of obsolete machinery and lack of specialised training. ***Southern Tanzania was characterized as having a low capacity to significantly add value to hardwood products*** through the processing of veneer, flooring, furniture and other high value products. This situation, partly attributable to a previous policy that allowed raw log exports, has resulted in large losses of potential value-added revenue.

Credit: Simon Milledge/TRAFFIC

Little value-addition occurs in most sawmills

[56] Only 27 out of the 8206 workers nationwide (soft and hardwood industries) had attended formal training at FITI (MNRT, 2005b).

[57] An additional 31 mobile sawmills were stationed in Rondo plantation.

Table 34

Details of permanent sawmills targeting hardwoods within study area, October 2004

District	Name (date of commencement)	Lines and specialisation	Estimated capacity[58]
Rufiji	Badr East Africa Enterprises Ltd., Ikwiriri (1992)	3 lines - mostly *Millettia stuhlmannii* and *Pericopsis angolensis*	120 m^3/mth (2000 data)
	Portfolio Investment Co. Ltd., Ikwiriri (1996)	1 line - various hardwoods	203 m^3/mth (2002 data)
	Mahmood International Ltd., Ikwiriri (1995)	1 line - *Dalbergia melanoxylon*	36 m^3/mth
	Alvasis, Ikwiriri (2002)	1 line - various hardwoods	24 m^3/mth
	Boleyn International (T) Ltd., Utete (2004)	2 lines	350-500 m^3/mth (700-1000 logs)
	MICCO/EPAC, Mwaseni (2004)	1 line - mostly *Millettia stuhlmannii* and *Pericopsis angolensis*	
	Mhavile, Ikwiriri (2004)	1 line - various hardwoods	24 m^3/mth
Kilwa	Boleyn International, Nangurukuru (2004)	3 lines - mostly *Millettia stuhlmannii* and *Pericopsis angolensis*	500 m^3/mth (1000 logs/mth)
	Shand Rongwood Co. Ltd., Kilwa Masoko (1995)	2 lines - *Dalbergia melanoxylon, Millettia stuhlmannii* and *Swartzia madagascariensis*	
Lindi	Mingoyo, Mnazi Moja	2 lines - *Dalbergia melanoxylon*	
	Sameja, Lindi town (1989)	1 line - *Dalbergia melanoxylon*	
	Vara, Lindi town (1997)	1 line - various hardwoods	
Mtwara	Prime Timber (2004)	Mostly *Millettia stuhlmannii, Swartzia madagascariensis* and *Pericopsis angolensis*	
Nachingwea	Naseline		
	Mtua (2002)	1 line - various hardwoods, including *Dalbergia melanoxylon*	

Sources: Milledge *et al.,* 2005a; MNRT, 2005b.

Exporters

An assessment of the number of exporters was complicated by two main factors. Firstly, some companies were in fact *'branches'* of the same *'mother'* company, or at least highly inter-related. Secondly, company names may be changed after one or two years, whilst owners and senior employees regularly move in and out of the country and change positions. Analysis of official records from two relatively recent sources showed that a total of ***at least 28 companies exported hardwood timber products sourced from natural forests***, not including sandalwood (Table 35).

[58] MNRT survey reported sawmill recovery rates of 26-45%. Recovery rates were reported to vary between 5% for *Dalbergia melanoxylon* and around 35% for flooring strips. One sawmill in Nangurukuru reported around 25% of *Pericopsis angolensis* were unusable due to heart rot.

Table 35

Major exporting companies of hardwoods [α] sourced from natural forests [β] (m^3)

Company name [γ]	Granted [δ] export permission December 2005 - March 2006		Actual exports January - June 2005	
	Logs	Sleepers	Logs	Processed
ABG African Link		600.0		82.0
Adept Implex		100.0		145.7
African Blackwood				3.4
AGM International		120.0		
Aqeel Traders Ltd.				12.0
AR Sheikh		500.0		
Arizona Business Co. Ltd.				1 000.2
Bolelyn International				54.8
East African Hardwood				13.2
EPAC Resources		200.0		
FQI Resources Management		200.0		
Junior Investment		550.0		
Kenwood Enterprises	700.0			
Mahmood International				6.3
Mbagala Sawmills Ltd.		400.0		699.1
Merzario Tanzania Ltd.				87.1
MICCO		200.0		435.1
Natural Wood (T) Ltd.	1 500.0		846.7	
Rofal General Traders		200.0		
RS Investment	200.0	300.0		
Shandrong Wood				23.6
Share Trading Co.				46.5
Sige Select Suppliers				0.1
State Enter Trade		280.0		
TABECO Ltd.				8.0
VNS Commercial Company	200.0			
YGF Investment		150.0		
Z & H Holdings Co. Ltd.		450.0		285.2
Total	**2 600.0**	**4 250.0**	**846.7**	**2 902.3**

Notes: [α] Table does not include sandalwood.

[β] Table does not include teak from plantations.

[γ] Actual company names may vary slightly. Table does not include individuals.

[δ] Export permission was subsequently revoked in January 2006.

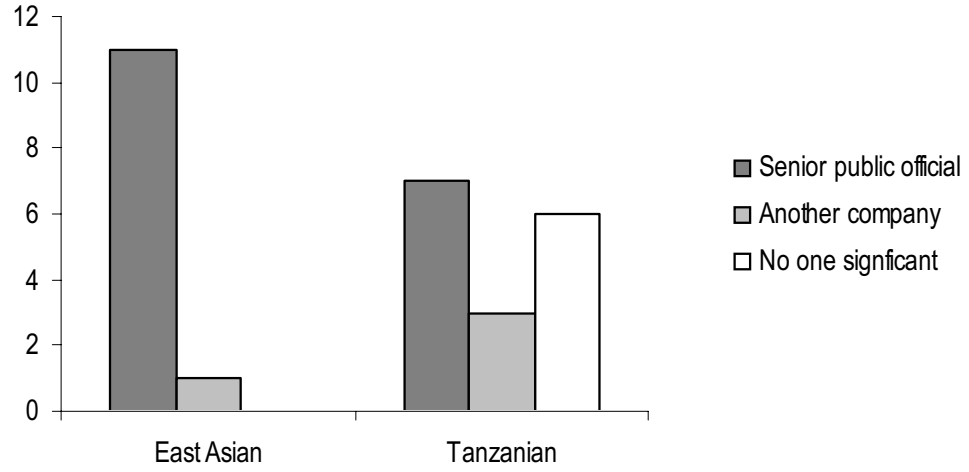
Source: Forestry and Beekeeping Division statistics.

Establishing the national provenance of timber exporting companies was not always straightforward using official FBD statistics, with local Tanzanian companies frequently used as a *'front'* for the actual financiers. Research into 28 companies indicated that ***57% (N=16) were owned by Tanzanians and the remaining 43% (N=12) owned by East Asians, mostly Chinese***.

The majority of timber exporters had some form of institutional relationship with senior government officials, both Tanzanian and foreign (Figure 43). Examples of institutional relationships included patronage (with the benefits to patrons based around financial returns and/or prestige), formal shareholding (either personally or on behalf of another individual or company) and board members. It was noticeable how eleven out of twelve foreign companies had institutional relationships with senior public officials. These institutional relationships mostly involved patronage and cronyism in some form or other (see chapter 8.4.4).

Figure 43

Institutional relationships of timber exporters by nationality of company ownership



Major shipping companies that transported timber products from Tanzania during 2003-2004 included Pacific International Line, Maersk Sealand, P&O Nedlloyd, Mediterranean Shipping Company, Mitsui Osk Line and DELMAS.

Credit: Andrew Perkin

Logs awaiting shipment at Pemba, Mozambique

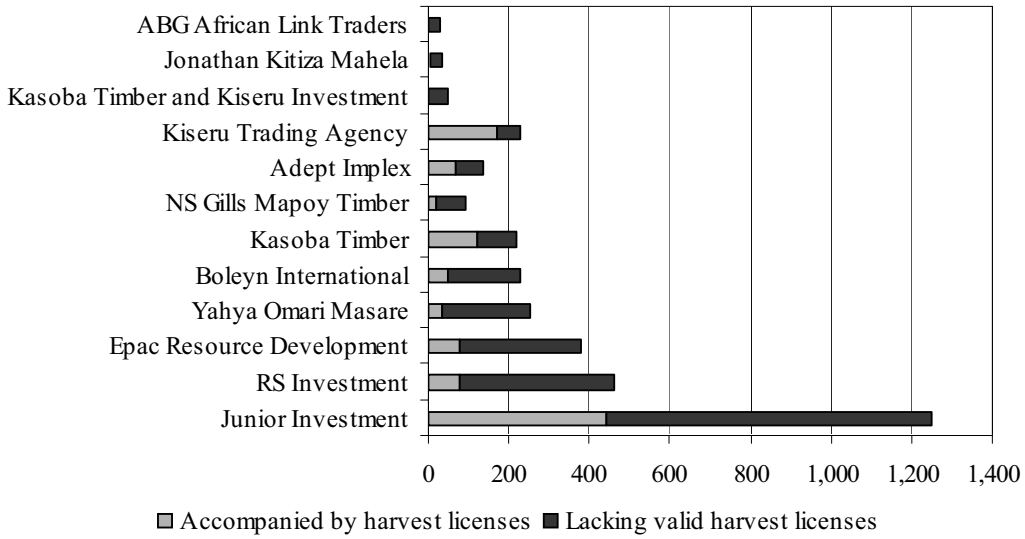
Challenges of operational realities and aspirations of private sector

There appears to be little doubt that one of the greatest perceived negative impacts of East Asian investment in the forestry sector was that of corruption. Stakeholders almost unanimously felt that East Asian traders, in particular Chinese, were *"uncompromising"*, *"pay larger bribes"* (with some claiming up to 50% higher payments) and had *"senior backing"*, making them a formidable force in the battle against corruption in the forestry sector[59,60].

Further details of the dynamics of bribery and favouritism are given in chapter 8.4, but it was ***apparent that perceived corruption in timber trade had increased, with a corresponding increase in illegal activity***. Moreover, it became startingly clear how ***very few traders (if any, in some areas) were dealing in legally-acquired timber during the timber rush of 2003 and 2004***. For example, close analysis of Rufiji District landing site data revealed that all *'owners'* without exception were in possession of logs lacking the necessary, supporting harvest licences (Figure 44). In Mtwara and Songea Districts, the quantity of logs belonging to six of the seven traders had also exceeded the quantities specified on the accompanying harvest licences.

Figure 44

Bar chart showing the status of logs (m^3) at Rufiji District landing sites



Source: Ministry of Natural Resources and Tourism landing site inspection data, 2004.

[59] Foreign-sponsored bribery tends to be held by many observers in developing countries as the most significant contributing factor to corruption (Andvig *et al.*, 2000).

[60] These concerns over corruption involving Chinese should not necessarily be linked to similar concerns over increasing quantities of illegally-sourced timber destined for China; on the contrary it is recognised that whilst the timber concerned is imported and processed within China, the end market/consumer for a large percentage of illegally-sourced timber is in fact the USA, Japan and EU.

As a result of the kind of information presented in Figure 44, popular perceptions of private sector involvement in the forestry sector, as evidenced by local media coverage, has become seriously tainted and suspect. This creates a dilemma as the reality is that there are some (at least a few) private companies in Tanzania, operating both in natural forests and within plantations, who do strive to meet high legal, environmental and ethical standards. Unfortunately, ***the scenario played out in southern Tanzania since 2002 has seriously clouded the judgement of many decision makers over the potential role of the private sector in forestry***.

The irony here is that these perceptions prevail despite high level messages to the contrary. For example, President Kikwete emphasized the need for changed attitudes towards the role of the private sector in market-led development in his inaugural speech, emphasizing that the *"private sector[is] now more able to influence government policy, especially in improving the investment and business climate"* (Kikwete, 2005). There is clearly ***a need to re-engage the private sector, adding sufficient incentives to attract reputable investors (not necessarily foreign), whilst ensuring that control mechanisms are used to curtail the activities of those companies failing to change***.

In addition, a 2005 World Bank study of the growth and the forestry sector concluded that the *"private sector, both national and foreign, provides the largest potential for future economic growth of the forestry sector"* (World Bank, 2005b). The study recommended a step-wise approach to engaging the private sector, with initial efforts aimed at reducing corruption and tackling policy (e.g. clarification and security of tenure rights to farmers) and market (e.g. good road infrastructure and market development) failures.

8.4 Intentional causes of governance shortfalls

8.4.1 Defining corruption and its scope

The majority of intentional causes for governance shortfalls can be attributed to corruption. Understanding 'corruption' is complicated by the huge range of definitions and interpretations of the term that exist largely as a result of the differing perspectives within political, economic and anthropological disciplines (Andvig *et al.*, 2000). A popularly-used definition for corruption is "*the abuse of public power for private benefit*", slight variants of which are quoted in the *Code of Ethics and Conduct for Public Servants (2005)* and in a recent review of corruption in Tanzania (Cooksey, 2005). However, many more descriptive definitions exist[61]. One useful example is corruption as a "*behaviour that deviates from the formal rules of conduct governing the*

[61] The lack of a legal definition of corruption was mentioned as one factor hampering anti-corruption efforts at a policy debate held in Dar es Salaam, July 2005.

actions of someone in a position of public authority because of private-regarding motives such as wealth, power, or status" (Khan, 1996). Interpretation of the above definitions should be understood to extend beyond the conventional definition of corruption as a predatory state to also include the importance of private firms. It is also taken to include embezzlement, the theft of resources by those put to administer it.

For the purpose of this study, corruption was accepted to include both *economic* (i.e. exchange of cash or material goods in a market-like situation) and *social* (i.e. clientelism, nepotism, ethnic and other favouritism) forms; involving anyone from high levels of the political leadership (*political* corruption) down through the hierarchy (*bureaucratic* corruption); and may also take place between the different branches of government and its many institutions (Andvig *et al.*, 2000).

Corruption in Tanzania

Corruption remains widespread in Tanzania and is indeed recognised at both national and international levels. Representing the beginning of a formal anti-corruption campaign, the 1996 Presidential Commission of Inquiry Against Corruption (Warioba Report) stated *"there is no doubt that corruption is rampant in all sectors of the economy, public services and politics in the country"*. President Kikwete, on inaugurating the Fourth Phase Parliament, emphasised various steps to address corruption. A comprehensive account of corruption cases reported in the literature was given by Cooksey (2005).

Mixed feelings persist regarding progress to eradicate corruption. Hoseah (2005) reported an almost 50% increase in corruption cases reported to the PCB between 1998 and 1999, partly attributed to the effects of the Warioba Report. However, Mwakagenda (2005) expressed concern that most progress to date in the fight against corruption in Tanzania has been directed towards bribery cases and petty forms of corruption.

A World Bank analysis did reveal Tanzania as one of countries whose control of corruption has significantly improved between 1998 and 2004, dispelling the myth that it takes generations for governance to improve (Kaufmann, 2004b; Kaufmann *et al*., 2005). In 2005, Tanzania was ranked 88th out of 158 countries on Transparency International's *Corruption Perception Index* (CPI). This represented an improvement since 1999 when the country was ranked 93rd out of just 99 countries, surpassing all other countries in the EAC and SADC except Botswana, South Africa, Lesotho and Namibia. However, the corporate corruption/ethics index used in the *2004/2005 Global Competitiveness Report* – extending the measurement of corruption to include forms not included in the CPI – ranked Tanzania lower than most east and southern African countries (Kaufmann, 2004a).

Following a literature review, Khan *et al.* (2005) summarized pervasive corruption as a major area of concern regarding institutions of governance in Tanzania (the others including a lack of transparency and accountability of government, weak democratic systems, inefficient market distortions and endemic rent seeking). On 2nd November 2004, the Daily Times ran a front page headline *"Corruption cause illegal logs trade"*, going on to report that *"corruption in the Ministry of Natural Resources and Tourism is cited as the cause of flourishing illegal log export business"*

8.4.2 Categorising corruption in timber trade

Examining and understanding corruption is not at all straight forward. A recent overview of different means to categorise corrupt practices in the forestry sector was provided by the World Bank, based largely on the framework developed by Transparency International (Rosenbaum, 2005). Four main forms of categorisation were presented: by *actor*, *motive*, *scale* and *type*.

1. ***By Actor*** (i.e. abuser of power):
    i. Involving the use of *public* authority – both political and bureaucratic actors; and
    ii. Involving the use of *private* authority.
2. ***By Motive*** (i.e. legality of outcome):
    i. According-to-rule or *legal* – provision of a benefit ordinarily required by law; and
    ii. Against-the-rule or *illegal* – provision of an unlawful benefit.
3. ***By Scale*** (i.e. size and scope):
    i. *Overarching* – overwhelming lawful controls;
    ii. *Grand*; and
    iii. *Petty* – small-scale, including motives both of greed and need.
4. ***By Type*** (i.e. form of corruption):
    i. *Bribery* – four different types according to cause and impact;
    ii. *Favouritism / patronage* – including self dealing, nepotism and cronyism;
    iii. *Kickbacks*; and
    iv. *Fraud* – lying for profit.

Examples of irregular and corrupt timber trade activities in Tanzania

Bribery to ensure harvesting, transport, possession, sale or export of illegally-sourced products
Bribery to speed up bureaucratic processes
Fraudulent behaviour to 'regularise' illegally-acquired products
Payments to avoid penalties or legal proceedings
Unfair restrictions placed on certain competitors
Extortion of payments for movement and possession of legally-acquired products
Personal involvement in illegal timber business by public officials, relatives or close associates
Undue influence applied to shape management interventions or legal/procedural change
Irregular siphoning of forest revenues, recurrent budgets and donor projects for personal enrichment

In the case of the Tanzania forestry sector, categorisation by *actor* has limited application since power and decision-making abilities largely remain in the domain of the public authority. Whilst all corruption by definition is illegal, categorisation by *motive* is both feasible in the Tanzanian context and useful to help determine the proportion of corrupt activities that produce *lawful* and *unlawful* benefits. Chapter 8.4.3 outlines a preliminary attempt to differentiate the two outcomes based on cases of bribery in timber trade.

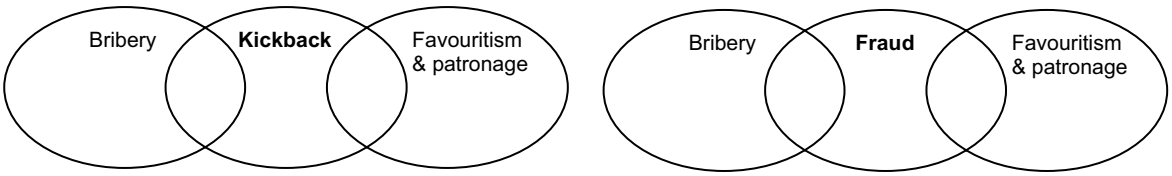
Categorisation of corruption by *scale* is also possible in Tanzania, although the lack of a clear distinction between *petty* and *grand* corruption can make analysis problematic. In a similar fashion to categorisation by *actor* (i.e. *bureaucratic* or *political* actor within public authority), categorisation by *scale* is both useful and important since it provides insight into the relative severity of corruption. For example, incidences of *grand* corruption involving *political* actors are generally perceived as seriously pervasive and damaging. A discussion of corrupt practices in the forestry sector by *scale* is given in this chapter.

Closer analysis of the realities existing within the forestry sector of southern Tanzania revealed that categorisation of corrupt practices by *type* was the most practical when trying to understand its extent. However, whilst four major *types* of corruption are presented by Transparency International – *bribery, favouritism, kickbacks* and *fraud* – their distinctions were again not always obvious.

Figure 45

Overlapping characteristics of different types of corruption – kickbacks and fraud

(a) Kickback **(b) Fraud**



For example, most examples of *kickbacks* in timber trade[62] were really a form of *bribery* where instead of making a 'down payment' in return for a corrupt service (as in the case of bribery) payment involved the sharing of a profit (usually after the corrupt event has taken place). Whilst differentiation between *kickback* and *bribery* by definition is thus theoretically possible, it was not always feasible to discriminate during practical research. In a similar fashion, the benefits accrued during *patronage* (a form of

[62] Reported examples in Tanzania include paying for childrens' school fees, donation of private vehicle, providing consultancy work and preferential issuing of construction contracts.

favouritism) often shared strong resemblances to *kickbacks* (Figure 45). For example, some patrons insist on a 10% share of profits.

Further, identifying and quantifying incidences of corruption involving *fraud* in the Tanzanian timber sector was problematic for two reasons. Firstly, *fraud* was normally one of several *actions* as a result of a corrupt relationship arising again from *bribery* or *favouritism*, as oppose to being an isolated corrupt incident itself. For example, a corrupt fraudulent action such as knowingly issuing a harvest licence for the wrong timber species in the wrong area was often a direct result of an act of *bribery* (Figure 45).

A second challenge in quantifying *fraud* as a *type* of corruption was simply because many non-corrupt, but illegal, timber trade activities also involved fraud (i.e. fraudulent timber traders acting without the knowing co-operation of civil servants or any public authority). In summary, whilst there is no doubt that fraud is illegal and undermines governance, it may not always be termed corrupt in the sense that it does not necessarily involve the knowing participation of public authority.

For these reasons, this study focussed on the two primary *types* of corruption presented by Transparency International where a clearer distinction was possible in the Tanzanian timber trade sector – ***bribery and favouritism***. It should be noted, however, that such a distinction did *not* preclude associations between the two *types*. For example, incidences of *bribery* may have continued to occur at various levels[63] within a specific timber trade chain despite the existence and strong influence of senior patronage.

Khan *et al.* (2005) presented a four-fold classification of corruption depending on two factors: the legality of the underling intervention and whether the intervention with which the corruption was associated was itself damaging or beneficial. This model was applied to help determine relative impacts of corruption in the forestry sector.

Table 36

Classification of corruption depending on 'interventions'

Nature of intervention	Legal Interventions	Illegal Interventions
Potentially Beneficial	State-Consuming Corruption	Political Corruption and Primitive Accumulation
Damaging	Market-Restricting Corruption	Predation / Theft

Source: Khan *et al.* (2005).

[63] Cases of *bribery* in trade chains demonstrating strong *patronage* tended to prevail near the timber source.

8.4.3 Bribery in logging and timber trade

Understanding bribery

A working definition of bribery used in this report is the *"offering, giving, receiving, or soliciting of any item of value to influence the actions as an official or other person in discharge of a public or legal duty."* In this context, bribery included *both* parties involved in giving, soliciting and/or accepting the bribe.

A recent World Bank review of forest sector corruption, based on the Transparency International framework, categorised bribery in four different forms according to the ultimate *intention*[64] (Rosenbaum, 2005). These included bribery to get a *scarce benefit*; to get a *discretionary favour*; to get an *incidental benefit*; and to *impose a cost* on others. Some examples of these different bribery forms in the Tanzanian context are shown in Table 37.

Table 37

Examples of different forms of bribery in Tanzania timber trade defined by *intention*

Intention of bribery	Examples from timber trade in southern Tanzania
To get a discretionary favour	Obtaining harvest licence, transit pass or export permit Securing clearance from village government to harvest
To get an incidental benefit	Facilitating rapid issuance of harvest licence Soliciting bribes for legal goods at checkpoints
To get a scarce benefit	Special permission to export timber products for limited period Access to purchase limited supplies of auctioned timber
To impose a cost on others	Ensuring greater scrutiny over competitors' export cargo Instigate higher security risks to logs in open storage

Source: Adapted from World Bank / Transparency International (Rosenbaum, 2005).

A noticeable reality in the timber sector in southern Tanzania was the apparent paucity of incidences involving the last two forms of *bribery* – to secure *scarce benefits* and to *impose a cost* on others. In the case of *scarce benefits*, these tended to be secured less through *bribery* and more through the influence of status and power gained from elements of *favouritism* and *patronage* (see chapter 8.4.4 below). It was believed that incidences of traders (or corrupt public officials) *imposing a cost* on others were rare

[64] This study also identified an alternative way to categorise bribery by *intention*, according to *financial*, *bureaucratic*, *legal* and *social* driving forces. First and foremost, bribery is driven when significant *financial* savings can be made, frequently achieved by reducing royalty or fine payments. Such financial losses to all levels of the government are the greatest economic impact of bribery. Secondly, bribery may arise for *bureaucratic* reasons, such as the need to reduce delays in various administrative steps. Thirdly, bribery commonly results from a desire to avoid the ramifications of *legal* proceedings. Lastly, *social* driving forces may stimulate bribery, for example, making payments to build status and influence.

due to the relatively low competition in this particular sector, minimising the need for retaliatory measures against both compatriot and foreign rivals.

The majority of bribery cases in the southern Tanzania timber sector were generally actions to secure discretionary favours and incidental benefits. However, in the same fashion that a lack of clarity existed between the different types of forest sector *corruption* (see chapter 8.4.2 above) there was also ambiguity between these two forms of *bribery* in the Tanzanian context. For example, the majority of *bribery* affecting timber trade in southern Tanzania since 2003 has involved facilitating some legal harvesting (i.e. bribery ensuring *discretionary favours*) which was subsequently used as a front to engage in larger-scale, illegal activities (i.e. bribery ensuring *incidental benefits*). Efforts to quantify bribery were thus restricted to these two forms.

Extent of bribery

Bribery in timber trade evidently occurred throughout the trade chain, although the players involved varied at different stages. Private sector players involved in bribery mostly included middlemen traders and exporters, together with service providers involved in the preparation of goods for export (Figure 46).

Figure 46

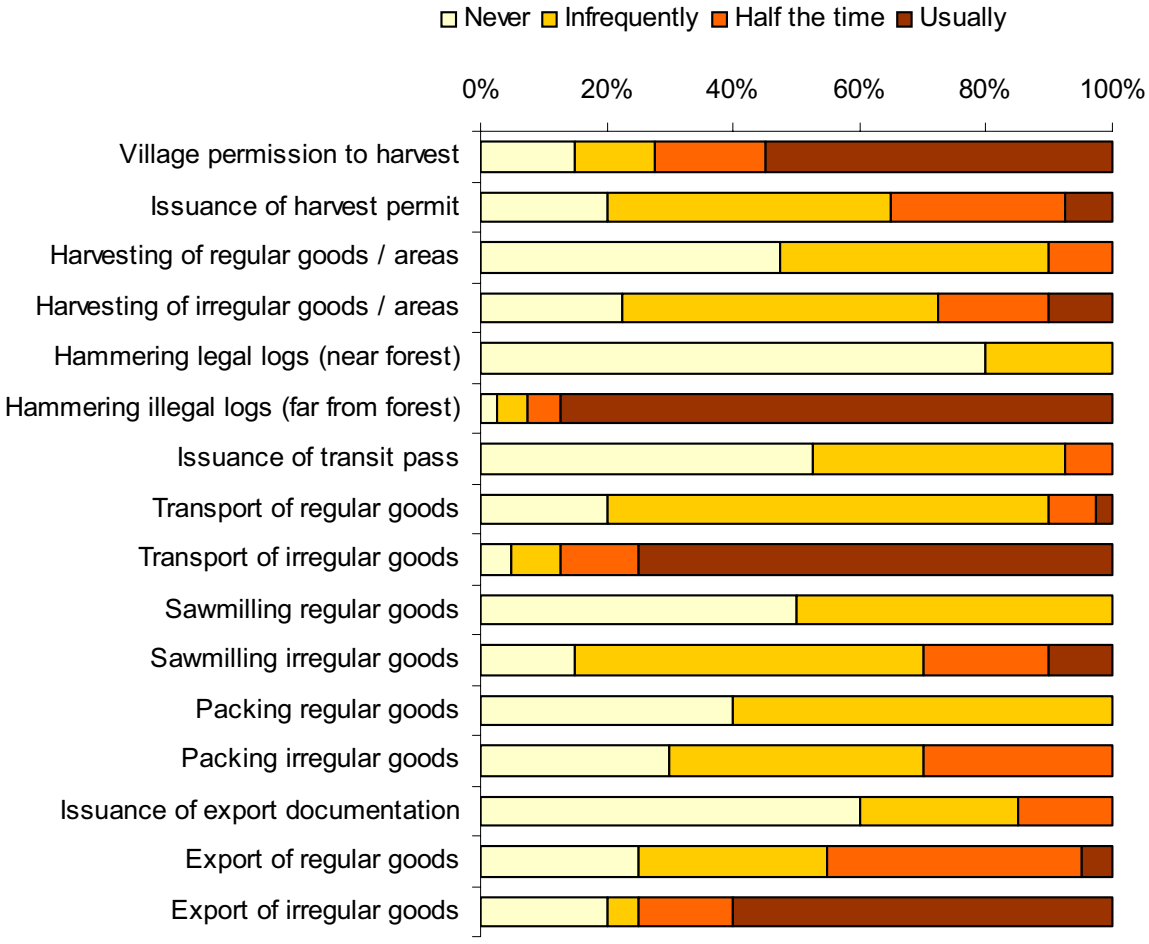
Diagram representing players mostly involved (circled) in bribery during timber trade

CATEGORY OF ROLE PLAYER	STAGE OF TIMBER TRADE				
	FOREST	ROUTE	SAWMILL	DEPOT	PORT
TRADER	LOGGER	MIDDLEMAN	MIDDLEMAN		EXPORTER
SERVICE PROVIDER	TRACTOR OPERATOR LOADERS	TRUCK OR BOAT OWNER	SAWMILL OWNER	DEPOT MANAGER FORWARDING AGENT	SHIPPING AGENCY CLEARING AGENT
REGULATOR	LGA-DFO VILLAGE LEADERSHIP	CHECKPOINTS (MNRT/LGA)	MNRT-FBD LGA-DFO	MNRT-FBD	MNRT-FBD CUSTOMS

A qualitative quantification of bribery covered both the perceived relative frequency and scale at different stages*[65] *of the timber trade chain. Relying on stakeholders' perceptions, emphasis during interpretation should be placed on the terms '*perceived*' and '*relative*'. In the case of *relative frequency***,** measurement did not assess the *absolute* number of incidences at different stages of the trade chain. Instead, it measured the *proportion* of occurrences at different stages of the timber trade chain where bribery could occur (Figure 47).

Figure 47

Relative *frequency* of acts of bribery during different stages of timber trade



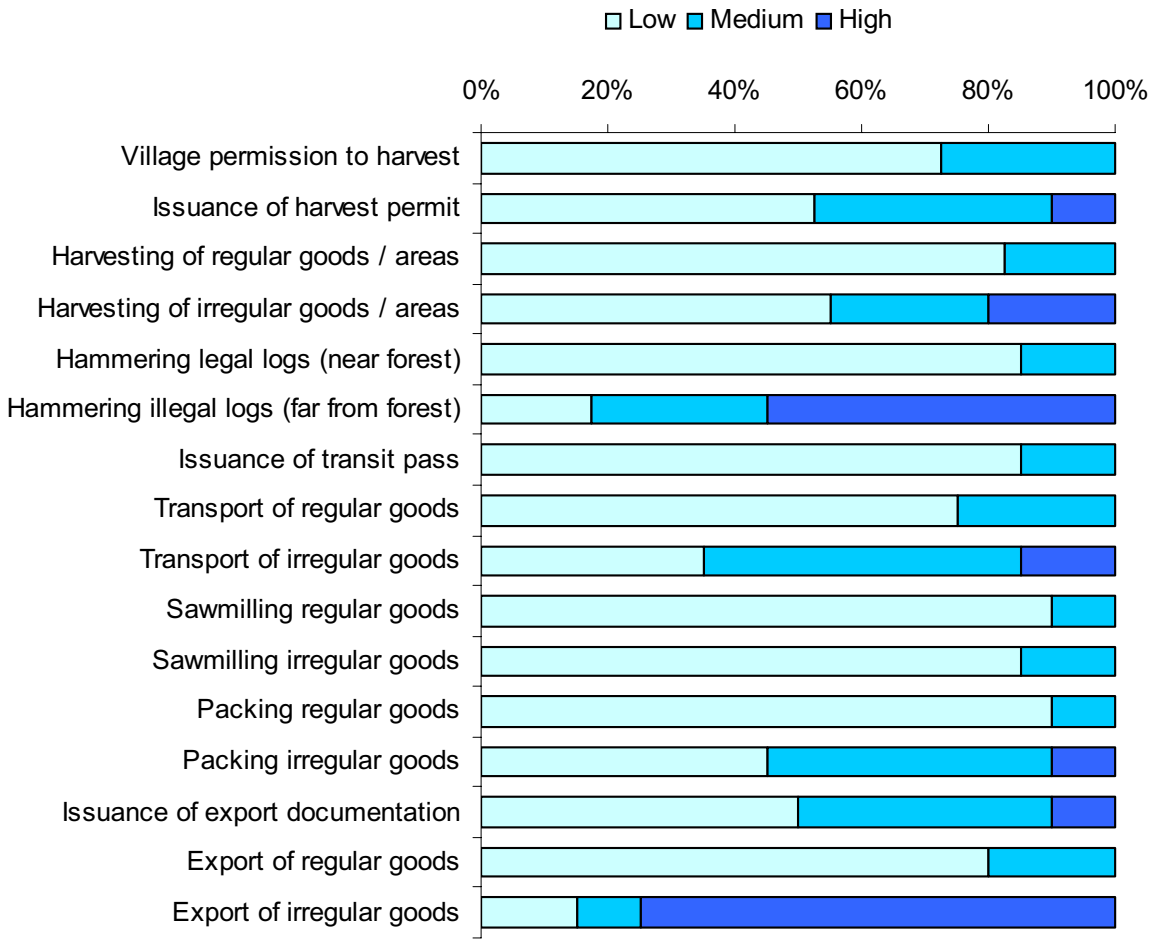
An alternative way to interpret this concept is the *likelihood* of paying a bribe at each stage according to the *perceptions* of different players themselves. For example, over half of the respondents claimed that bribery occurred in most instances when traders move to secure village government permission to harvest in village land. Similarly, approximately 80% of respondents maintained that a bribe was "never paid" when

[65] In this context, the different 'stages' of the timber trade chain included not only the successive documentation procedures (e.g. obtaining harvest licence, export permit, etc.) but also the distinct processes involved (e.g. physical harvesting of trees, transporting from locality to locality, etc.).

legally-harvested logs are hammered. Overall, the highest frequency of bribery existed at *village level* and during the *hammering, transport and export of illegal* products (Figure 47). It can also be seen how the high frequency of corruption at several stages of the trade chain supported many observers' views that petty corruption became almost institutionalized at all levels in recent years.

Figure 48

Relative *scale* of bribery during different stages of timber trade



In the case of *relative scale,* measurement again did not assess the *absolute* size of bribery incidents (i.e. amount of money paid) at different stages of the trade chain. Clearly, this would almost certainly show higher average bribery payments as one moved along the trade chain (i.e. average payment at export would inevitably be higher than payment at village level). At the same time, relative standards (costs) of living tend to increase as one moves along the trade chain, thus complicating attempts to directly compare average bribery payments. Instead, measurement of *relative scale* focussed on *comparatively* measuring the *perceived effects* of bribery payments on the different players, thereby reducing the effects of variation in income levels and other socio-economic factors. The relative scale of bribery was thus simply ranked as "low",

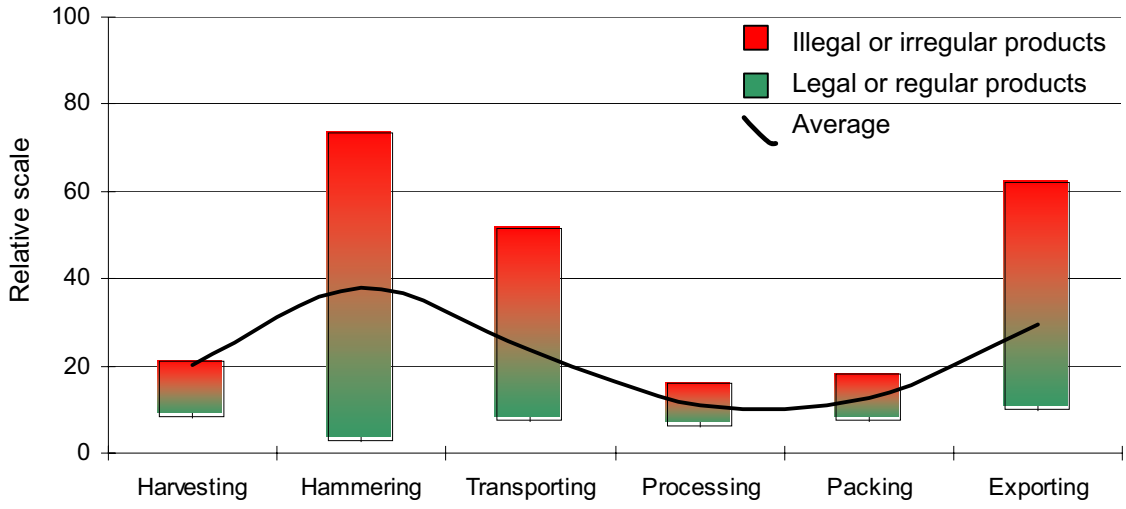
"medium" or "high" according to the perceived impacts on lifestyle. As an example, almost 60% of bribes paid to *hammer* ('*legalise*') *illegally-harvested timber* were perceived to be relatively "high" (from the perspective of the person paying), increasing to over 70% for bribes paid to *export illegally-harvested timber* (Figure 48).

Comparison of these relative frequency and scale graphs revealed several similarities, in particular the high levels reported during the hammering and export of illegally-harvested products. Similarly, relatively low levels for both variables were reported during the hammering of legally-harvested products, issuance of transit passes and sawmilling regular goods. However, there was not always a linear relationship between relative frequency and scale. For example, it was clear that whilst bribes are regularly paid in most incidents to obtain village permission to harvest (Figure 47), in relative terms the bribes paid were mostly small (Figure 48).

Greater utility, perhaps, than the two above graphics showing frequency and scale of bribery, is the presentation of a simple *'timber trade bribery index'*, which compared the two factors at each broad stage[66] of the timber trade chain (Figure 49). Since this index works on the *perceived* measures of *relative* frequency and scale of bribery, it is not an attempt to *quantify* bribery but merely a tool to better understand the *severity* (mostly from a trader's perspective).

Figure 49

'Timber trade bribery index' [67] (ranging 0-100) at each stage of the timber trade chain for both legal and illegal products



[66] In calculating the average index values, values for both "legal" and "illegal" products are grouped together at each stage of the trade chain due to large overlaps between the two in reality.

[67] "Relative scale" takes into account perceived *frequency* and *size* of bribery.

At the very minimum, this *timber trade bribery index* allowed a *ranking* of which stages of timber trade were most prone to bribery[68]. Thus, the average perceived levels of bribery were highest at the stages of ***hammering*** and ***exporting*** (see average trend line in Figure 49). This was to be expected since bribery frequently occurred at steps where government royalties are paid; corrupt relationships developed to avoid such royalties[69]. From a management perspective, it could therefore be argued that the ***processes of hammering logs and exporting timber products are the two stages of the timber trade chain where efforts to reduce incidences of bribery should be focussed.***

A *quantitative* assessment of bribery in the forestry sector was not really possible since it was rarely possible to obtain accurate data on the amounts paid in corrupt transactions. Estimates varied that bribery accounts for between 5% and 20% of gross profits, with the exception of bribes paid to avoid legal proceedings which could be considerably more. The examples given in Table 38 serve to illustrate the severity of some bribery cases.

Table 38

Some examples of bribery involving timber trade in southern Tanzania

Stage	Examples of severity
Export	Up to TZS 50 million (USD 44 000) allegedly paid to officer for issuance of documentation during export ban. Reports of TZS three million (USD 2600) paid to senior officer connected with export of four containers.
Transport	Payments at checkpoints commonly range between TZS 20 000 (USD 18) and 300 000 (USD 263) depending on the size of consignment and level of irregularity.
Harvesting	Payments of TZS 50 000 (USD 44) paid to Ward Secretary, TZS 20 000 (USD 18) to Village Executive Officer, and around TZS 2000 (USD 2) to up to 20 village committee members, to ensure a harvesting agreement is signed. In addition, DFO may be paid considerably more to facilitate harvesting of excess volumes - upwards of TZS 200 000 (USD 175) to get an additional TZS one million (USD 880) worth of timber.

Key issues with bribery

These results showed some other important findings. ***Even trade activities involving legally-harvested timber products were unfortunately susceptible to, and affected by, corruption involving bribery*** (see green-shaded, lower end of bars in Figure 49, none of which hit the x-axis). This implied that even traders with the most open and honest intentions could hardly operate without some level of bribery (normally to hasten

[68] The occurrence of bribery can, however, sometimes be 'masked' by favouritism or patronage, although this has been assumed to affect all stages of the trade chain in a fairly equal manner.

[69] In support, Kobb *et al.* (1999) claimed: *"Of all forms of corruption, perhaps the most prominent is tax evasion"*. A recent survey of citizens' views on taxation in local authorities concluded widespread tax evasion was largely as a result of perceived little in return (Fjeldstad, 2004).

bureaucratic processes). This appeared to indicate that ***timber trade in southern Tanzania had fallen prey to more chronic forms of bribery (petty corruption).***

Further, Figure 49 illustrates how there was a high *variability* in the difference between bribery levels involving legally-sourced (green-shaded, lower end) and illegally-sourced products (red-shaded, upper end) at different stages of the trade chain. In other words, ***the costs (and risks) of operating illegally (and thus engaging in bribery) were much higher during hammering, internal transport and export stages.***

Another finding was that levels of bribery during harvesting at village level appeared to be relatively low[70], largely due to low awareness of relevant policies, forest-related rights and timber product values at rural level (Figure 49). In many villages, the majority of the village community were not even aware of what constituted illegal or corrupt practices and, therefore, did not drive further demand for corrupt relationships. Further, relatively small sums of money (when compared to general standards of living) were used to bribe at village level, again indicative of low awareness regarding the real value of timber products in demand. This all goes to support the ongoing need to raise awareness and increase transparency at rural levels.

A further concern was the ***predicted susceptibility of timber trade to increased bribery following any trade restrictions***. Trade restrictions are a common reaction to concerns over issues of legality. However, the same two stages of the timber trade chain that would normally be targeted to introduce restrictions to trade (i.e. harvesting/hammering and export) had the highest relative levels of bribery. ***Without additional measures of scrutiny, corruption at these 'trade bottlenecks' could easily undermine the success of such interventions*** that effectively turn a *discretionary favour* into a *scarce benefit*. Another potential issue is that if measures to reduce bribery at *'trade bottlenecks'* are successful, it may simply stimulate a shift towards more damaging forms of corruption (e.g. favouritism) where such measures are ineffective.

Lastly, it was worrying to note that the same stages of the trade chain exhibiting highest relative frequency of bribery were also experiencing increasing trends in bribery (Figure 47; Table 39). It was also apparent that exports in general (i.e. involving both legally and illegally-sourced products) were subject to increasing levels of bribery, as increased opportunities have arisen to engage in corrupt activities at the point of export. On the other hand, the levels of bribery have declined at sawmills (Table 39).

[70] Some cases of bribery during harvesting and transport may have been under-reported since a corrupt arrangement may in some cases stretch from harvesting through to the issuance of a transit pass with the actual bribery payment paid at the time of hammering. However, such cases are unlikely to greatly change interpretation of results.

Table 39

Perceived trends in bribery at different stages of the timber trade chain

Decreasing bribery	Little or no change in bribery	Increasing bribery
Hammering legally-harvested logs Sawmilling legally and illegally sourced products	Issuance of harvest permit Harvesting of legal and illegal products Issuance of transit pass Transport of legally-sourced products Packing legally and illegally-sourced products Issuance of export documentation	Gaining village permission to harvest Hammering illegally-harvested logs Transport of illegally-sourced products Export of legally and illegally-sourced products

8.4.4 Favouritism and patronage in logging and timber trade

Understanding favouritism

A potentially more damaging form of corruption than bribery is ***favouritism*** since it may involve *senior* public officials, hold the ability to *undermine* democratic and equitable processes, and operate in a highly *clandestine* manner[71]. Favouritism may be generally defined as *"showing an inclination to favour some person or group"*. In its most damaging form, favouritism constitutes "*unfair treatment of a person or group on the basis of prejudice"*.

Logs en route to Dar es Salaam

Labourers waiting during logging ban

Credits: Simon Milledge/TRAFFIC

At the extreme, favouritism can be a root cause of illegal forest activities with linkages to political structures. A recent review of rural livelihoods and forest law enforcement in five countries stated that *"Where the rule of law is ineffective, elaborate and deeply entrenched patronage systems facilitate illegal forest use and are often closely linked to political networks that control and protect these lucrative activities"* (Colchester *et al.,* 2005). Examples of favouritism in logging and timber trade exist from tropical forests all over the world (Table 40).

[71] As noted earlier, there are also associations between bribery and favouritism. For example, bribery may be required as a precursor to secure patronage. As another example, bribery may indeed continue in the timber trade chain despite the influence of senior patronage.

Table 40

References to favouritism and patronage in logging and timber trade in other countries

Country	Logging and timber trade
Indonesia	*"Small-scale logging operations have been structured around power networks based on patronage since the earliest records, and over time have become an ingrained element in the country's economic and political life. Local government leaders have sought both to secure revenue for the administration and to position themselves personally at the centre of lucrative patronage networks."*
Cameroon	*"Successive studies have revealed the very close links that exist between senior politicians, members of the armed forces and forestry concessionaires that are known to be operating illegally."*
Mozambique	*"Direct conflict of interest between the public responsibilities and private interests of public officials, notably the national forestry management authority and ruling political party."*
Nicaragua and Honduras	*"Illegal trade is deeply enmeshed in the local political economy … and involves a wide range of state actors. Forestry related corruption occurs at both political and bureaucratic levels, whereby payments are made to speed up regulatory and bureaucratic processes and to encourage officials to step outside their mandate."*

Sources: Colchester *et al.,* 2005; ORAM, 2005.

Favouritism takes a number of different forms, depending on the *nature* of person or group that is being favoured. A convenient categorisation of favouritism was provided by the World Bank, based on the Transparency International framework (Rosenbaum, 2005):

1. ***Self-dealing*** generally involves the "*direct, personal involvement"* in a business activity. Examples from the timber sector may include ownership, joint-ownership or shares in a harvesting, processing, transport, clearing or exporting company.

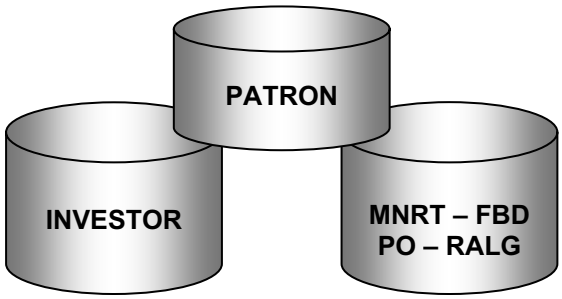
2. ***Nepotism*** is the *"favouring of relatives"* because of the family relationship rather than their abilities or qualifications.

3. ***Cronyism*** is "*partiality to long-standing, loyal friends"*, again more due to their relationship than qualifications.

Patronage, the "*act of supporting or favouring some person, group, or institution"*, is also a form of favouritism. Patronage in timber trade existed with many exporters. It was distinguished from other forms of favouritism by the *seniority* of the patron; normally patronage involved distinguished individuals who could exert an influence on other branches of government if necessary (Figure 50). Further, it commonly demanded *reciprocity* in the form of some kind of support or kickback (Figure 45). In reality, it was difficult to separate patronage from the other three forms mentioned above – in the timber sector, for example, it was invariably associated with elements of self-dealing and cronyism.

Figure 50

Patronage as the link between investors and government in timber trade



Favouritism remains the least documented form of corruption due to obvious sensitivities and potential repercussions in conducting research. It should be stressed that discussion of favouritism in this report is merely aimed to highlight its existence and vindicate the need for measures other than those used to address other types of corruption, rather than an exercise to implicate certain individuals.

The nature of favouritism makes it a difficult form of corruption to quantify, since most instances are undocumented and conducted in a highly covert manner. This is part of the reason why so few cases reach court. Whilst not possible to fully quantify, the *scope* of favouritism in the forestry sector can be illustrated. This section therefore aims to highlight the *extent* of this form of corruption in the timber trade sector within different government institutions and bodies, as well as emphasising key areas of influence.

Extent of favouritism and patronage in timber trade

One fairly reliable measure of favouritism is to simply assess the explicit involvement of public officials in timber trade, either directly (self-dealing) or by relatives (nepotism). A total of ***25 cases of nepotism and self-dealing were reported in southern Tanzania***, although this list was by no means exhaustive[72]. Around three-quarters of the cases could be termed as self-dealing[73]. The two main benefits for direct involvement (self-dealing) included ***reducing the costs of doing business*** (time and money through influence and status) and ***preferential access to scarce benefits***.

As an indication of the extent of self-dealing and nepotism, examples were found in *every* district covered in additional to Dar es Salaam, namely Rufiji, Kilwa, Lindi, Liwale, Nachingwea, Ruangwa, Masasi, Mtwara and Tunduru (Table 41).

[72] These results were obtained following interviews with wide-ranging stakeholders; a case was counted when reported independently by at least two stakeholders.

[73] It is possible that more cases were in fact nepotism, since the distinction between nepotism and self-dealing was not always clear during field research.

Table 41

Instances of favouritism recorded in timber trade

Location	Nepotism	Self dealing	Location	Nepotism	Self dealing
Dar es Salaam	1	2	Nachingwea	1	4
Rufiji		3	Ruangwa		2
Kilwa	1	1	Masasi	1	1
Lindi	1	1	Mtwara		1
Liwale	1	3	Tunduru		1

Cronyism was most prevalent in Dar es Salaam where larger numbers of people of higher status reside. Examples of cronyism were wide-ranging and difficult to rank in terms of scale. However, of interest was the apparent dichotomy of actions as a result of cronyism, which were either willing or unwilling in nature (Table 42). The main driving force behind cronyism appeared to be ***maintenance of relationships with both peers and superiors***. However, also significant was ***unwillingly acting in a corrupt manner in fear of reprimand by superiors***. This related to social factors influencing corruption in the forestry sector (see chapter 8.4.5).

Table 42

Percevied occurrence of non-financial involvement associated with cronyism

Voluntary/willing actions	Occurrence	Non-voluntary/unwilling actions	Occurrence
Favours granted to superiors in the hope of future promotion or recognition	Low	Knowingly implementing a corrupt action, and doing so in fear of reprimand for any inaction	Medium
Maintaining status quo and relationships with peers and superiors	High	Payback for historical favour, even if no current association, with possibility of threats for inaction	Low

Differentiating between formal patronage and informal ties involving senior public officials was another challenging task in practice. However, ***over half of 28 exporting companies studied (16 out of 28) reportedly had institutional linkages with senior Tanzanian or foreign government officials*** (e.g. ambassador, Cabinet Minister, District Commissioner).

The *benefits* of patronage included the following (in order of importance): speeding up issuance of necessary official documentation (especially trader's licence and harvest permits); timely access to information; reduction of petty corruption (bribery) at different stages of the trade chain; avoidance of legal proceedings; and enabling co-operation of law enforcement agencies.

Key issues with favouritism and patronage

Perhaps the most significant finding of recent work was the ***high levels of direct senior government involvement in timber harvesting and trade from southern Tanzania***. Numerous reports from stakeholders and observations indicated the involvement of senior public officials at village, district and central government levels.

It should be noted, however, that a relation between illegal timber trade/corruption and senior government involvement was *not necessarily implied.* There were likely to be many examples of direct involvement of senior public officials in timber trade in a non-detrimental manner. For example, some senior public officials may have indeed owned, co-owned or assisted relatives and friends with timber trade businesses in a legal and non-detrimental manner. Further, it was recognised that many senior public officials once involved in timber trade have changed positions since this research was conducted and are no longer in positions to exert direct influence.

Governance concerns with senior government official involvement were two-fold. Firstly, even in the absence of illegal and corrupt behaviour (e.g. bribery, upaid royalties), ***senior influence can often affect decision-making processes and general fairness through undue interference and bias***. Secondly, it was clear that the majority of timber harvested from southern Tanzania in recent years had been in contravention of relevant forest laws, including that harvested and traded by companies with known linkages with senior public officials (see chapter 8.2.2). In other words, ***illegal logging and trade may go largely unnoticed on the pretext of well connected people***.

At central and district government level, many examples of self-dealing, nepotism and cronyism involving timber trade were evident during 2003-2005, operational throughout southern Tanzania as well as in Dar es Salaam (Table 43). The ***presence of direct interests in timber trade within some levels of the Executive and at ministerial level*** (including senior ranks within the Ministry of Natural Resources and Tourism) ***arguably presented the greatest concern with respect to ensuring integrity in decision-making, fairness, impartiality, transparency and justice***. A significant portion of stakeholders viewed such senior level involvement as a form of sanctioning for illegal activities. It will be important that the leadership in the fouth phase government address this higher level of corruption, and not just focus on bribery[74].

[74] On the 10th May 2006, The Guardian newspaper ran a headline *"Illegal logging: Minister admits staff involvement"* which quoted the Minister of NRT, Anthony Diallo, *"It is not easy to control the illegal business because corruption is involved. Bribery runs all the way from the source to the end of log exports chain". "Even worse, our staff has been sucked in the chain of bribery to protect the people behind illegal exports of logs".*

Table 43

Some reported examples of self-dealing, nepotism and cronyism in timber trade

Level of Government	Examples of positions with personal involvement in timber trade
Executive	Cabinet Minister, Regional Commissioner, District Commissioner
Parliament	Member of Parliament
Central government	Minister, Assistant Director, Principal/Senior Forest Officer
Local administration	District Executive Director, Forest/Game Officer, Village Executive Officer
Security	Army officer, Police officer

At village level, ***the personal involvement of village leaders in timber trade has led to an unfair distribution of profits***. Corruption within village leadership, in particular amongst relevant village committees, was claimed to have become a major problem throughout southern Tanzania. For example, village chairmen or committee members were reported to receive personal payments as a result of entering into an agreement with a timber trader, whilst minutes were often completed in the absence of many committee members.

Credit: Simon Milledge/TRAFFIC

Tractor used to bring logs from forests to village

Of greater impact, however, was the level of control placed on the selection and payment terms of loggers, storage and collection points for logs coming from surrounding forests, and terms of revenue distribution when the logs were ultimately collected and purchased. A graphic example of such control is shown in Figure 51 where the bulk of logs lay immediately adjacent to the village chaiman's house (who accumulated significant personal wealth and was indeed the only building with a new iron roof[75]).

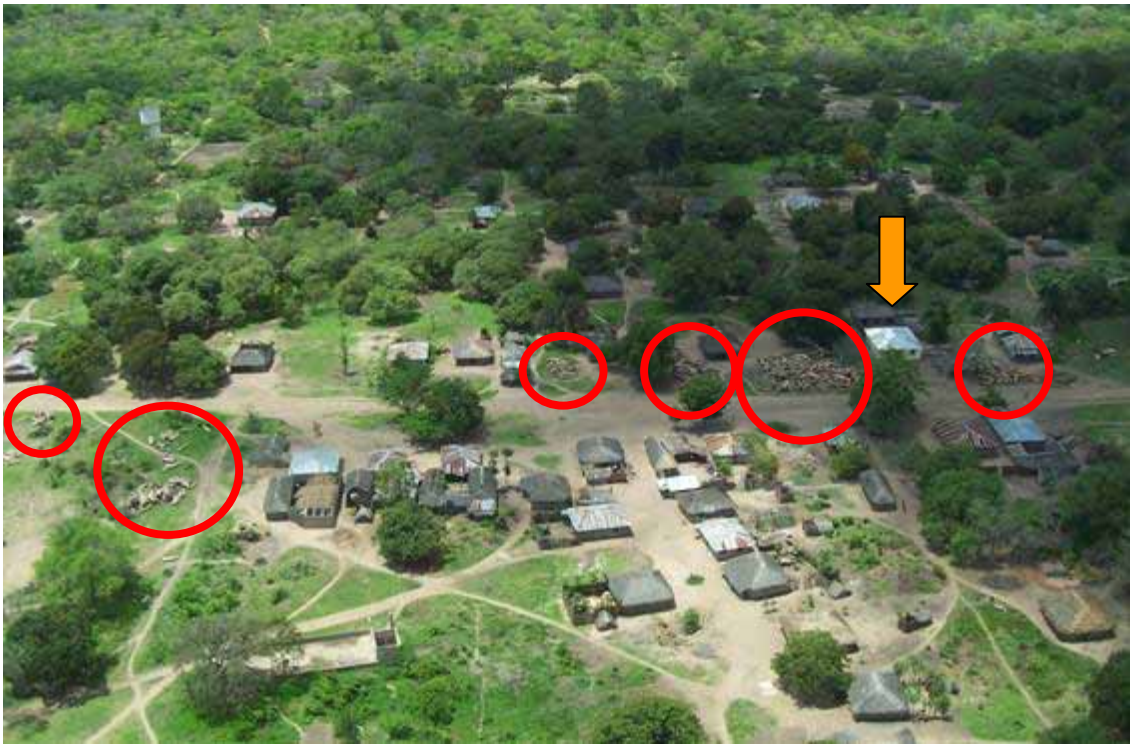
Somewhat connected to the presence of senior government involvement in timber trade was the ***high degree of collusion, organisation and protection.*** This was largely due to the high profits involved and the drive to protect assets from potential competitors (especially in the private sector), but also due to the increasing risks of getting caught. Collusion between forest officials and traders (with specific reference to checkpoints) was not a new phenomenon; regional catchment forestry officials in Tanga were reported to undermine exercises to assess timber revenue collection performance by

[75] It is acknowledged, however, that the existence of a new metal roof is not necessarily a good indicator of wealth or development; the purpose of its reference here is illustrative only.

colluding with traders (Kobb, 1999). A recent MNRT audit of revenue collection performance also witnessed the use of mobile phones by forest officers in an organised communications network (TFCMP, 2005). However, what has been largely overlooked is precisely how extensive this organisation can become across different levels of government and between different sectors (Figure 52). Indeed, ***the level of organised forest trade crime was sufficient at times to maintain a cover up against the most senior levels of FBD*** with collusive elements covering all stages of licensing, grading, port, and yard inspections. Collusion was further reported to provide protection for junior public officials to engage in bribery.

Figure 51

Village in southern Tanzania showing log piles and village chairman's house

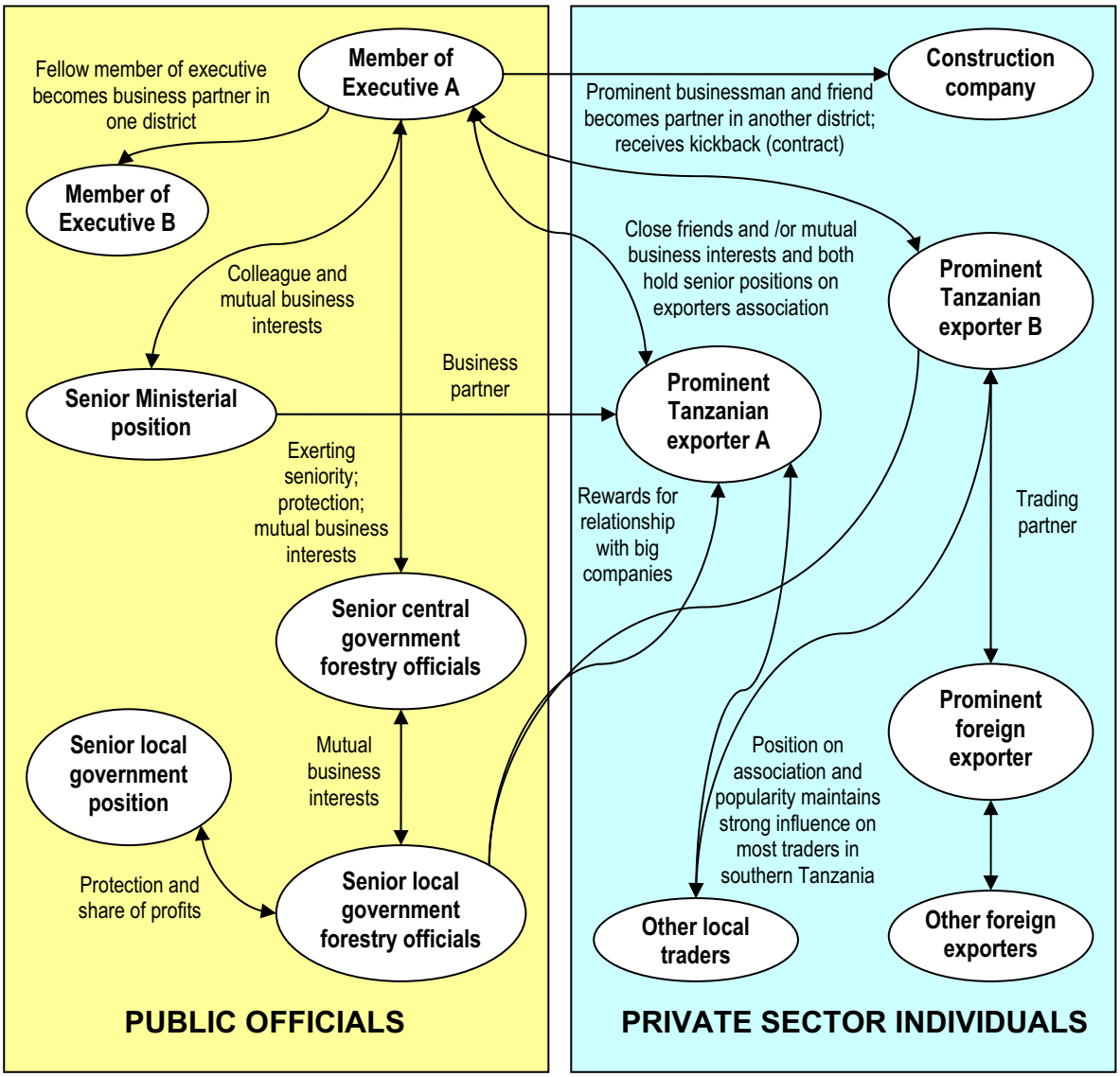


Credit: Simon Milledge/TRAFFIC

The level of collusive organisation between different government institutions and private sector ensured the ***harnessing of critical positions of authority*** within both the MNRT, and the main timber traders and exporters association. In addition, the 'tentacles of influence' also reached down to the level of District Harvest Committees and local political representatives (Figure 52). As an example of the speed of collaboration, within hours of a harvest ban being announced on 24th January 2006, some 20 trucks stationed at Nangurukuru and containing approximately 2000 logs were offloaded to avoid confiscation.

Figure 52

Example of linkages between stakeholders involved in timber trade, 2004/2005



The example illustrated in Figure 52 underlines another concern with senior government official involvement - how ***close, mutual interests with the business community can result in overwhelming influence by the private sector*** (especially with regards to influencing management decisions, covered in chapter 8.5).

The combination of direct involvement in timber trade by senior public officials, overwhelming control by the private sector, and shortfalls in management decision-making – all of which are somehow related – are seen as the worst forms of timber trade-related corruption from a long-term development perspective.

Lastly, an issue to address is that the ***observed scenario of organised, senior involvement of public officials in timber trade, much of it involving illegal activities, is susceptible to traditional anti-corruption efforts***. Caution should be taken when

implementing strategies to counteract the most obvious form of corruption – bribery – since not only will it remain ineffective against other forms (such as favouritism), but it may even stimulate growth in the more damaging forms of corruption. Clearly, anti-corruption strategies in the field of timber trade need to cover all forms of corruption in a holistic manner.

8.4.5 Factors influencing corruption and governance shortfalls

A recent review of governance structures in developing countries highlighted the importance of understanding the social, economic and political circumstances in which current institutional models were conceived (IDS, 2005). The following sections outline some general social, political and economic factors that need to be taken into account when trying to understand governance shortfalls. In particular, such considerations need to be remembered when formulating recommendations to improve governance in the forestry sector.

Social factors

Some of the ***strongest influencing forces affecting corruption in the forestry sector are social in nature***, many woven in the fabric of Tanzanian society. In this way, they are the influences that are least affected by technically-orientated management interventions that tend to concentrate on environmental, administrative and economic reasoning. It should be noted that some social drivers are unique to southern Tanzania; as social settings vary across the country.

Knowledge and experience play a role in shaping social attitudes and perceptions. Thus, social influences may vary considerably within different communities, especially between young and old people, and where there are differing levels of education and literacy. However, one prevailing perception which has affected recent outcomes in the forestry sector is that the ***harvesting and trade in timber products in contravention to the forest legislation was not always considered an illegal activity***. Some of the justification for this strong perception in southern Tanzania is historical. For centuries, rural lifestyles (and customary rules) have revolved around *open access* policies to forest resources. For many rural Tanzanians, harvesting timber without a permit, or farming inside a forest reserve, as two examples, were simply not considered as illegal (and even more so when timber is turned to fuel wood). For this type of mindset, illegal activities were restricted to serious crimes such as violence, adultery and livestock theft.

Ignorance of the law also has a large influence on illegal and corrupt activities. The majority of rural communities were unaware of recently revised procedures for licensing, harvesting and trading timber products, in particular the specific steps that should be followed and respective roles of different levels of government. Some were

also unaware of the potential opportunities and benefits from participatory forest management under the new forest policy and legislation. As a result, there is a tendancy to continue 'business as normal' – clandestinely harvesting and trading timber products.

Persistent perceptions regarding forest legislation was another factor contributing towards corruption, including both ignorance of the current legal framework and long-standing experience with colonial forest legislation. There were many stakeholders, from both public and private sectors, who understood forest ownership, use and access to be an overtly top-down structure[76]. This situation is particularly susceptible to petty corruption and historical attitudes require considerable time for change. However, the need for attitudinal change was emphasised in President Kikwete's inaugural speech, "*All these government initiatives will succeed only if Tanzanians change their attitude towards their own role, and the role of government, in a private sector economy.*"

In addition to the above points specific to forestry, there are various social aspects of Tanzanian culture in general that also influence the likelihood of corruption taking place as well as perceptions about corruption itself. Tanzanian society is very respectful, especially with regards to seniority in age, rank and/or status. Respect can be a very positive quality in terms of building cohesive social structures. On the other hand, ***over-respect can also act as a hindrance towards preventing corrupt practices*** under some circumstances. For example, it was found to be extremely difficult for a junior colleague (in age or rank) not to carry out directives from a superior, even if it was known to be improper. The issue at stake was rarely one of job security alone; it was often linked to the wider social standing within and outside the working environment. Unfortunately, this dynamic is so strong that it was relatively easy for a senior official, if so inclined, to take advantage of their superior rank to abuse rules, procedures and general conformity. Indeed, many examples of forestry corruption repeatedly go unchallenged, especially at village level, partly as a result of this predicament.

There are other types of corruption that were not necessarily considered corrupt in a serious way. Respect of social standing was so strong that ***many Tanzanians did not regard patronage as a form of corruption***, even when there could be clear conflicts of interest between the private patronage and official duties. This perception tended to predominate more at rural levels, however.

Another ***widely held belief is that nepotism was natural***, and thus deemed acceptable by many members of Tanzanian society (especially if the case was somehow justifiable,

[76] Colonial forest legislation, which remained in place some time after independence, led to an apparent marginalisation of rural communities - forest rights were largely restricted to subsistence use and decisions regarding timber trade in the domain of the government. Despite changes in forest policy and legislation, many forest officers still exert authority in a top-down fashion, and many rural communities continue to regard forests as a government-controlled resource.

such as employment of a relative who held the necessary qualifications, even if competitive, equal opportunity recruitment did not take place).

Further, there were some specific actions that were not regarded as corrupt, such as many instances of small-scale bribery. For example, the ***distinction between a tip and a bribe was not clear*** for some, especially since the giving of tips had become almost a customary behaviour for a range of interactions. Such so-called illegal and corrupt practices were ***almost institutionalized, deemed normal and created peer pressure***. Somewhat linked to the culture of respect was that of fear with surprisingly many stakeholders (from all sectors) fearful of retribution.

In light of the above, it is difficult to make a judgement on the moral standings regarding corruption and illegal behaviour[77]. However, there did appear to be a growing voice of Tanzanians who believed that ***morals have been eroded in recent years***. Within the forestry sector, it was apparent that most stakeholders shared the belief that actually ***no stakeholder group totally lacked blame*** with regards to illegal and unsustainable logging and timber trade. For example, it was not possible for MNRT to apportion total blame regarding irregular licensing procedures on LGA forest officers since irregularity has also raised its ugly head within the MNRT. Similarly, blame on irregular harvesting could not be placed squarely on rural people since they were profoundly aware of wrongdoings by village and district government officials. Meanwhile, timber traders observed irregularities from forest to port, choosing to collude or keep quiet at will. The general realisation that appeared to be gaining resonance was a general drop in moral standards, as indicated by the fact that many stakeholder groups shared the blame for the recent negative spiral of events.

Power and political factors

An examination of political (power) factors helps to understand reasons for governance shortfalls. In particular, the links between key events in Tanzania's political past helps to comprehend the relevance of various political and economic developments to governance. A useful overview to economic and political changes in Tanzania was provided by Khan *et al.* (2005) in their study on state weaknesses in developing countries (adapted in Table 44).

[77] Morality is very much linked to a society's culture, and to question morality can then imply questioning culture, which is inappropriate and unproductive.

Focusing on the most recent political period of economic and political reforms since 1985, ***decentralisation has had a profound influence on timber trade governance***. Decentralisation and market-led development in Tanzania have been relatively recent events – taking place since the mid-1980s – considering the required time normally needed to achieve accompanying institutional reforms. If left unchecked, forces from both central government (top-down) and local levels (bottom-up) can contribute towards abuse of good governance. On the one hand, the ***devolution of power to local government without sufficient extension services and capacity to supervise can lead to corruption*** at local government level. The same applies to the transfer of administrative power to village level. On the other hand, ***the rising demand from local constituents for service delivery by Members of Parliament often increases the need for rent seeking by local level power networks for political representatives*** (Khan *et al.*, 2005).

Miombo woodland, Kilwa District

Carpenters' workshop, Ikwiriri, Rufiji District

Credits: Simon Milledge/TRAFFIC

In southern Tanzania, there was an apparent ***linkage between the timber trade and involvement of public officials and individuals with political ambitions***. For example, it was evident that significant numbers of local political representatives (or hopeful politicians) were able to gain recognition and power through timber trade, as a means to gain personal financial gain, elevation in status and possibly promotion. This scenario predominated at lower levels of government, including village and ward leadership, and was a ***challenge facing participatory forest management initiatives whereby local elites could be inadvertently created in the name of community forestry.***

Table 44

Summary of Tanzania's political history and relevance to governance

Notable developments	Political and economic ramifications	Relevance to governance
1917-1961: Post - World War I colonial era		
- Following WWI a British protectorate under a League of Nations Mandate in 1917. - Indirect rule[78] started in 1924. - African Association[79] established 1929.	- Emphasis on maintaining political stability, with limited industrial development but prominent peasant agriculture through the consolidation of settled small-holdings. - Indirect rule aimed to increase tax collection. - Nationalist movement emerged due to inadequate economic transformation.	- Prominence of peasant agriculture made it difficult for the state to have effective power over the bulk of society (traditional agriculture had a low dependence on the state). - Local chiefs helped to reduce threats to colonial authorities. - Nationalist movement weak since most leaders were poor smallholders.
1961-1984: Post - independence 'socialist' era		
- Independence gained for Tanganyika in 1961 - Became one party state in 1965, Arusha Declaration in 1967, and Union with Zanzibar in 1977.	- Path of economic development during 1961-65 remained similar to colonial rule although indirect rule abolished. - Committed to *ujamaa* based on state-led 'socialist' economic transformation, with strict limits on private sector accumulation and social differentiation. State took control of accumulation and distribution of rents, and villagization scheme[80] initiated. Productive capacity of the economy and GDP improved, but limited rural transformation.	- Ruling party had limited factional competition and also held precedence over the institutions of the state. - Gradual fragmentation of power within the state and an absence of constituencies reduced ability to impose discipline. Central party leadership was strong enough to keep relatively weak factions together in one party, but too weak to impose discipline on state-owned industries, leading to their poor performance.
1985 – present: Economic and political reform era		
- Economic reform including liberalization and privatization started in 1985. - First multiparty elections held in 1995.	- Shift towards market-led development model, followed by decentralization programme to push service delivery and political power to the local level. Resulted in good rates of growth, but much of the country has not benefited since new growth sectors of mining, minerals and tourism do not offer widespread linkages and employment opportunities generated by the manufacturing sector.	- Ruling CCM party domination prevails, able to contain the relatively weak factional competition, but central power unable to override internal factions that emerge when big rents at stake. - Increased importance of local level power networks for political representatives and requirements for service delivery by MPs to local constituents. Political corruption descended to districts. - Continued political stability but not necessarily a higher level of state effectiveness, and some evidence of social fragmentation on the increase.

Source: Adapted from Khan *et al.* (2005).

[78] 'Indirect rule' involved the co-option of local elites into the colonial structure as a means towards greater stability.

[79] The African Association was the foundation of the Tanganyika Africa National Union (TANU), which became the Chama Cha Mapinduzi (CCM), the current ruling political party.

[80] The Villagization scheme consolidated some 80% of the rural population into co-operative villages, an attempt to encourage sedentary agriculture with cooperative landholdings.

At a higher political level, there was little evidence obtained during field research to suggest that timber trade is intricately linked to maintaining political party stability. Whilst there have been several examples of senior political involvement in timber trade (e.g. Regional and District Commissioners, Members of Parliament and Ambassadors), these appeared to more associated with personal enrichment than maintaining political structures. However, this could shift in the future, especially if central power within CCM becomes unable to contain internal factional competition. Indeed, the ***likelihood of forestry rents (and other natural resources) adding strength to developing factions at local levels in many areas of southern Tanzania is higher than many other rent sources due to the relative abundance of forestry resources and their increasing value***. It is apparent that many countries with a longer history of timber trading do have higher level political connections, as revealed in a recent review of several countries, *"Profits from illegal forest use are woven into the fabric of society and keep existing political parties and processes in operation"* (Colchester *et al.,* 2005).

Another important factor to consider when understanding Tanzanian government responses to governance shortfalls is the ***over-riding priority of maintaining peace and harmony***. Indeed, the first core issue to be addressed by the fourth phase government was to ensure *"peace, stability and unity*" (Kikwete, 2005). Political stability is one such important aspect, which has been successfully maintained since the early 1900s (Table 44). In light of the challenges faced by a dominant ruling party in maintaining control over internal party factions (especially at local levels), and the likelihood of forestry rents adding strength to developing factions (at local levels), ***efforts to strengthen governance need consider the possibility of further fracturing political structures***.

A separate element of governance worth considering is the ***potential long-lasting impacts of the dismantling of local authority structures*** (e.g. chieftancies) following independence. These authority structures were present long before colonial rule, and largely followed the settlement patterns of different groups including agriculturalists, pastoralists, semi-pastoralists and hunter-gatherers. It is likely that these authority structures governed land use, tenure and access, possibly also including forests. Since these structures were largely left intact during colonial rule (Table 44), it may be postulated that their dismantling after independence has possibly left a vacuum in local-level forest governance.

Credit: Antje Ahrends

Roadside sale of charcoal

Bureaucratic factors

A discussion on the degree of bureaucracy faced by businesses in Tanzania was presented in Kobb (2001). Whilst somewhat dated, in 1998 an investor would take an average of 14 months to follow up to 72 steps (involving 22 institutions) in initiating a business, including the completion of some 280 pages of forms for specialised sectors such as forestry (not to mention at least 69 annual return requirements). Whilst the number of steps has almost certainly declined, the ***sheer number of steps and persons involved increases the opportunities for corrupt behaviour from both sides***; an investor may pursue corrupt means to avoid the lengthy bureaucratic procedures, and public officials may otherwise take advantage of their decision-making powers in stalling the process. It is apparent from the data presented in chapter 8.4.3 that incidences of bribery did indeed prevail at key bureaucratic stages such as obtaining documentation or hammering logs.

Bureaucratic factors do not just affect public-private interactions. For example, in the case of the dual ministry administrative arrangement for forestry management, the lack of clarity over procedures, timelines and roles makes it difficult to assign responsibility and therefore opens the possibility for corrupt practices.

Economic factors

From the perspective of public officials, the well-known expressions of *need* and *greed* have influenced corruption in logging and timber trade. Low salaries and motivation has contributed to incidences of petty corruption (bribery) involving public officials at lower levels of government. When the value of a single tree at export easily outstrips monthly wages of a forest officer, the temptation to engage in corruption surely grows. For those public officials who become aware of the potential profits from timber exports, however, greed becomes the driving factor to engaging in grander forms of corruption (favouritism and patronage).

From a trader's perspective, avoidance of royalty and fee payments was one of the major motivations for illegal timber harvesting and stimulating corrupt practices. Many traders claimed that the total cost of trading timber legally was very high, taking into account licence fees, business licence, income tax, levy to the village and district, transport costs, and investment in time. Indeed, some traders reported that the high cost of trading legally often precluded middlemen making a profit, leading to increased smuggling, fraudulent behaviour, corruption and other illegal activities.

At the same time, it was also clear that illegal logging and timber trade to avoid royalty payments was also conducted in an ***opportunistic manner merely to increase profits in a relative vacuum of enforcement***; the only enforcement-related costs for such traders were those of bribery.

A number of factors have contributed to ensuring sufficient financial benefits from illegal logging and timber trade. Firstly, ***relatively few competitors existed in prime harvesting areas, allowing a monopoly of purchases and price fixing***. Purchase prices were kept low (down to USD 0.50 for a 0.5 m^3 log in Rufiji District) and in the absence of better market knowledge, village harvesters unwittingly underpriced logs. In fact, fixed price ranges were applied across the board to not only species of differing values but also legally and illegally-harvested logs. Overall, this helped to increase profits to middlemen traders in particular.

Secondly, during 2002 and 2003, there was a subtle change in overseas demand with increased orders for hardwood species that had previously been traded in negligible quantities (e.g. *Baphia kirkii*). In reality, these species were relatively abundant when compared to traditionally-used species that were gradually becoming scarcer. In turn, this ***perceived resource abundance ensured low purchase prices***.

Thirdly, the rapid increase in timber trade in general throughout southern Tanzania since 2000 has resulted in more and more direct rural involvement in logging and transport. ***Competition for employment (few income alternatives) within individual villages ensured labour costs remained low*** (but still plentiful).

Credit: Antje Ahrends

Pit sawn planks transported by bicycle

At a higher level, there has been an added ***influence of foreign trading***. The globalisation of markets and transactions in general has been noted as providing a distinct opportunity to expand collusive and concealed transactions (Andvig *et al.*, 2000). Foreign investors in the timber export industry (in particular East Asian companies) reportedly paid larger bribes and generally operated in a less open manner than Tanzanian firms had traditionally functioned. Due to the strong mutual interests between many of these investors and influential Tanzanian patrons, illegal activities and associated profits undoubtedly strengthened the integrity of syndicates operating at different levels. It is known, however, that some of the smaller syndicates subsequently broke up since the January 2006 ban on indigenous hardwood log exports.

On the consumer side, there has been ***little pressure from domestic and many overseas timber markets to discern between legal and illegal products***. This has therefore allowed, and even forced where bargaining power was low, timber producers and traders to acquire and market the cheapest products – those derived from illegal timber.

8.5 Management responses to escalating timber trade

A number of policy and legislative developments to strengthen forest management occurred in the late 1990s (chapter 5.3.1). With respect to forest product trade, they included the following:

i. *Forest Policy (1998):* aims to ensure adequate management and sustainable trade in forest products, and involvement of all stakeholders especially local communities;

ii. *Government Notice No.18 (2000):* increased fines on average by 100%;

iii. *Government Notice No.68 (2000):* prohibited the transport of timber products from 18:00 pm to 06:00 am;

iv. *National Forest Programme (2001):* implements policy in collaboration with stakeholders, aiming to increase development, collaboration, investment and production of sawmills, thus increasing revenue and contributing to poverty alleviation; and

v. *Forest Act (2002):* allows communities and other stakeholders to own forest resources, and management of sustainable forest product trade.

At around the same time, there was investment to gain greater stakeholder participation in forest maangement and implementation of these timber trade provisions. For example, FBD employed 84 new staff, whilst a further 127 graduated from forest training institutes, between 2000 and 2003. Law enforcement capacity was enhanced through the initiation of seven zonal inspection teams[81], and transport capacity boosted by the purchase of ten vehicles between 2000 and 2002 (Mkeya, 2004; Mbonde, 2005).

As a result of these initiatives, there has been several tangible benefits. From an economic perspective, revenue collection doubled between 2002/2003 and 2004/2005. On the social side, greater community involvement facilitated the establishment of over 3.6 million hectares of forest under local management (FBD, 2006). However, environmental outcomes have been generally negative, with rapid forest degradation (between 91 000 and 98 000 hectares lost annually) threatening to undermine short-term gains, and illegal activity limiting economic returns.

Credit: Richard Elibariki

Inspecting logs

[81] Zonal Inspection Teams: East Zone (DSM, Coast, Morogoro), West Zone (Tabora, Rukwa, Kigoma), North Zone (Arusha, Kilimanjaro, Tanga), South Zone (Lindi, Mtwara), Lake Zone (Mwanza, Shinyanga, Kagera, Mara), Central Zone (Dodoma, Singida) and Southern Highlands Zone (Mbeya, Iringa, Ruvuma).

8.5.1 An overview of management interventions since 2003

2003

Serious concern regarding the high levels of uncontrolled timber harvesting, trade and export activities in southern Tanzania started in earnest during 2003, following the opening of the Mkapa Bridge and coinciding with increased overseas demand. Specific transgressions related to alarming levels of lost revenues, forest degradation, governance shortfalls and disenfranchised local communities. It was only a matter of months before various spatial and temporal restrictions were applied, at local[82] and national levels (Milledge *et al.,* 2005b).

Partly in anticipation of the tasks ahead, ***FBD received a substantial increase in budget for 2003/2004***. During that year, the FBD budget was equivalent to 29% (TZS 7.6 billion, equivalent to USD 7.2 million) of the total MNRT budget for recurrent expenditures, as compared to 24% of the MNRT budget in the previous financial year (World Bank, 2005b).

During 2003, only two hardwood species were permitted for export as roundwood: *Swartzia madagascariensis* and *Tectona grandis*. However, increasing numbers of traders were mixing logs of banned hardwood species. ***A directive from the Forestry and Beekeeping Division in September 2003 prevented the issuance of licences to harvest trees and export logs other than Swartzia madagascariensis and Tectona grandis,*** except for those sawmills permitted to process specific wood products. Following heavy targeting by exporters, a ***nationwide order to stop issuing licences for Combretum imberbe was announced at the same time***, following a similar ban placed on Rufiji District one month earlier.

By December 2003, it was observed that increasing timber harvesting around the country had continued unabated, but in particular within Coast, Lindi and Mtwara Regions, causing further forest degradation and losses of revenue (FBD, 2004). ***On 24th December 2003, the government responded with a national order to stop issuing new timber harvest licences from natural forest*** until further notice, following a review by the government (Figure 53). This order did not affect firewood or charcoal.

2004

The review, as relayed back to relevant forest officials and stakeholders at a meeting held on the 29th January 2004, recommended that the ***issuance of harvest licences from natural forests be permitted from 1st February 2004***. The decision to lift the nationwide ban was in recognition of the contribution of forest product sawmills make in terms of employment and income to the

[82] For example, harvesting in the areas of Mkongo, Ngonrongo, Utete, Mwaseni and Nyumburuni Forest Reserve was temporarily halted in May 2003.

nation, as well as the responsibility of the government to ensure the availability of basic raw materials on a sustainable basis[83].

At the same stakeholder meeting, timber traders and exporters were informed of the impending enactment of the new regulations under the *Forest Act (2002)* on 1st July 2004, which would effectively prohibit all exports of hardwood logs from natural forests. Planks and processed logs would, however, be permitted beyond 1st July, and the MNRT requested traders to process all hardwood logs from natural forests within the country after this date, making the export of unprocessed logs illegal.

Meanwhile, ***a strategy was endorsed to look after the environment as well as the generation of government revenue, and also to reduce illegal harvesting, enhance supervision, and promote greater involvement of village communities.*** Firstly, the Ministry moved to strengthen forest product checkpoints and patrols, and to educate forest industry businessmen about the laws, rules and procedures for harvesting and trading in forest products. Secondly, all districts were ordered to prepare forest harvest plans and to inform village governments of the allowable harvest specifications. Thirdly, additional procedures were introduced for all harvesters requesting a licence, which specifically aimed to ensure more involvement of village governments in the process (Annex 3).

Credit: Simon Milledge/TRAFFIC

Swartzia madagascariensis roundwood exports were permitted up until 1st July 2004

By the time this temporary ban was lifted at the beginning of February 2004, timber traders and exporters were well aware of the impending ban on all exports of hardwood logs from natural forests effective on 1st July 2004. Facilitated by the newly completed Mkapa Bridge, the short-term result was a massive assault on the forests and woodlands of southern Tanzania before this deadline[84].

In the meantime, additional measures were taken to prevent excessive uncontrolled harvesting. Strategies to address key challenges were formalised in March 2004 (FBD, 2004). These strategies were similar to those followed in the early 2000s, including the purchase of equipment such as vehicles, employing more staff, increasing personnel

[83] Lindi District, however, opted to maintain a separate ban on further issuance of harvest licences.

[84] Even some remote villages were loading up to three trucks per day, each carrying approximately twenty logs.

training and motivation, encouraging stakeholder participation, restricting certain aspects of trade, and promoting tree planting and public awareness.

In early June 2004, additional strategies were discussed at another FBD meeting to review the management of timber harvesting and revenue collection (Mkeya, 2004). These focussed on a series of 'key issues' workshops designed to improve: revenue collection and administration; law enforcement against dishonest traders; community involvement in the prevention of illegal logging and transport of forest products; the location of checkpoints, including the potential introduction of new facilities; preparation of district level timber harvest plans; the employment of more forest officers by district councils; and communications and collaboration at district level.

For a second year, the ***FBD budget for 2004/2005 was increased by almost TZS 100 million to TZS 4.9 billion*** (USD 4.6 million) to strengthen patrols at trading places, harvesting areas and transport checkpoints. Actual expenditure during 2004/2005 was over TZS 7.6 billion (USD 7.2 million). Despite these various measures, illegal harvesting and exports continued unabated in the absence of effective enforcement measures. ***During an inspection at Dar es Salaam harbour on the 2nd July 2004 (involving the then Minister of Natural Resources and Tourism), a total of 85 containers, many containing logs from banned species, were discovered ready for export***. Other consignments lacked or differed from supporting documentation.

Operating within a relative vacuum of effective controls, timber traders had continued to harvest and export many more logs than legally allowed and with minimum payment of revenues at all levels. By 8th July 2004, within a week of the Minister's inspection, some 179 containers had been impounded by the MNRT at Dar es Salaam harbour.

According to official FBD records, an inspection carried out on 157 containers revealed that they collectively contained 6992 logs (2683 m^3) and 2254 planks (52 m^3). ***Closer examination revealed 151 containers holding illegal[85] products with unpaid royalties totalling TZS 198 million (almost USD 190 000)*** (Table 45). This event, and subsequent follow-up actions, was given constant front-page coverage in the national media for over one month.

Credit: WWF TPO

Logs confiscated at Dar es Salaam port

[85] Issues included consignments which exceeded the volumes specified on permits, contained unprocessed, roundwood logs or logs that lacked hammer marks, and comprised different species from those specified on permits.

On the part of FBD, perhaps the greatest irregularity was the fact that containers apprehended at Dar es Salaam port during July 2004 were accompanied by export permits whose validity period extended beyond the period of the export ban[86]. As a result of ***investigations by both a MNRT committee and a team comprising PCB, FBD and police that commenced in July 2004, legal action was initiated against many exporters while, internally, four FBD officers were suspended***. Ultimately, one FBD officer, the Assistant Director (Forest Utilization) was terminated (in May 2005), whilst the three other individuals were reinstated, albeit transferred to different positions.

Strict enforcement of the indigenous timber export ban on 1st July 2004 at Dar es Salaam port did have a profound knock-on effect on harvesting in forest areas. Not only did the volume of timber issued on harvest licences decline immediately, but so did levels of uncontrolled, illegal harvesting. Indeed, ***field observations during this period confirmed that within two months tree felling for export had halted completely***. During this two-month period, there was some delay in the news of the ban reaching villages in southern Tanzania, and such news was greeted, in some cases, with disbelief or blatant flouting of the law. In the meantime, many trucks supplied by middlemen and exporters to carry logs from the forest to village landing sites either ran out of petrol or became grounded.

Credits: Simon Milledge/TRAFFIC

Logs stored temporarily at landing sites within villages and nearby forests, southern Tanzania

As a result of the transport shortage, many logs piled up at villages and other specified landing sites throughout southern Tanzania. ***Dedicated patrols were undertaken in Coast, Lindi and Mtwara regions by a multi-stakeholder task force starting on 17th July 2004 and continuing through August***, as part of an assignment to confirm the location, volume and legality of all felled logs remaining in landing sites throughout Coast, Lindi and Mtwara Regions. During this assignment, around 25 000 logs were

[86] Normally, export permits have a validity period of one month. Export certificates accompanying the containers impounded at Dar es Salaam port during July 2004 were issued between 2nd and 28th June, whilst expiry dates extended up to 17th July.

inspected (approximately 10 000 m^3, but not including possibly an equivalent volume remaining in the forests).

In the process, FBD records show that ***over 17 800 logs were confiscated (approximately 7000 m^3)*** and their owners were asked to present relevant documentation to prove their legality during a two-week period between 20th September and 4th October. At that stage, it was planned to either auction any logs that were not proven to be legally owned, or for the owners to pay excess dues and other relevant charges. In the event, ***unpaid royalties from logs held at village landing sites throughout southern Tanzania amounted to TZS 382.7 million (USD 366 200)*** (Table 45).

In addition to the logs discovered at Dar es Salaam port and in numerous village landing sites, other stocks also piled up in various storage and container yards in Dar es Salaam (Table 45).

Table 45

Amounts of money owed by timber companies following inspections

Location	No. companies	Amount owed (TZS)	Percentage
Lindi, Coast and Mtwara	23	382 651 539	44
Dar es Salaam yards	16	63 657 637	7
Dar es Salaam port	3	198 079 797	23
Public auction		[β] 227 116 000	26
Total	**[α] 41**	**[γ] 871 504 973**	**100**

Notes: [α] Two companies owed money for logs located both at Dar es Salaam port and in villages.

[β] An earlier assessment of logs to be auctioned during December 2004 (Annex 6) valued them at TZS 298 million (USD 285 200); it is presumed the figure dropped following further clarification of ownership.

[γ] By the end of Feburary 2005, just over half of the TZS 871.5 million (USD 834 000) owed by traders in Dar es Salaam, Coast, Lindi and Mtwara Regions had been paid, rising to 91% by the end of June 2005.

Source: Forestry and Beekeeping Division.

However, WAWAMATA (Tanzania Forest Products Transport and Export Dealers Union) claimed that FBD had made errors in the determination of legality (claiming legal, hammered logs were counted as illegal, unhammered logs) and requested a reinspection. The Minister of Natural Resources and Tourism agreed with this request, following which the traders would pay outstanding fees.

Following this extensive exercise to inspect logs held throughout southern Tanzania and Dar es Salaam, both at the port and other holding yards, ***FBD ascertained that a total of 41 companies owed TZS 871.5 million, equivalent to around USD 834 000*** (Table 45).

The severity of the situation in southern Tanzania and Dar es Salaam resulted in an ***order given on the 13th September 2004 to halt the issuance of harvest licences effective from 1st October 2004 to 31st January 2005*** (Figure 53). Similar to the first order in December 2003, charcoal licences were not affected. The Regional Natural Resource Advisors were further requested to collect all central and local government hammers by 27th September 2004. During a meeting between MNRT and traders held on 29th September 2004, it was agreed that exporters would pay the excess dues and then be allowed to export their products within a set time frame. It was also on this understanding that no further legal action would be taken.

Other measures included the banning of debarking, stopping all timber exports from Mtwara port, and halting the clearance of new timber processing investments by the Tanzania Investment Centre.

Credit: Simon Milledge/TRAFFIC

Logs stockpiled in Dar es Salaam

Figure 53

Nationwide harvest and trade restrictions on hardwoods from natural forests since 2003

2005

On the 19th January 2005, FBD announced an ***extension of the harvesting ban up until 31st March, which was later extended to 30th June and again to 15th August 2005***, to allow more time to conduct various assessments, including the status of the resource base, processing capacity and general timber trade management in the country (Figure 53).

Resource inventories in eleven of the most important forested districts, including ocular estimates, revealed an estimated total of 55.8 million m3 standing trees (Table 46). Following completion of these inventories, it was determined which forest areas could allow harvesting and which areas should be set aside for protection purposes only.

During the period of the ban, the government also ***conducted an assessment of the timber processing capacity*** throughout the country, to enable some kind of comparison between standing timber stock, production and timber processing capacity. The nationwide assessment estimated the ***actual hardwood processing capacity at 54 994 m^3 annually, whilst installed capacity was 454 482 m^3***, indicating available capacity to process many of the logs held in various parts of the country (MNRT, 2005b).

Table 46

Results of forest inventories in eleven priority districts

District	Forest are (ha)	Volume (m^3)	m^3 per ha
Mpanda	3 196 744.0	11 690 042	3.66
Ulanga	2 497 309.5	2 637 254	1.06
Liwale	2 455 050.0	13 460 373	5.48
Tunduru	1 051 143.0	12 838 956	12.21
Mvomero	897 554.3	2 941 136	3.28
Handeni/Kilindi	848 567.3	392 692	0.46
Kilwa	725 553.0	7 615 588	10.50
Kilombero	655 464.5	917 473	1.40
Rufiji	608 794.0	2 305 499	3.79
Mkuranga/Kisarawe	381 021.0	387 219	1.02
Nachingwea	190 159.0	662 656	3.48
Total	**13 507 359.6**	**55 848 888**	

Source: Forestry and Beekeeping Division.

Credit: Simon Milledge/TRAFFIC

Sawmill, Ikwiriri

Credit: Simon Milledge/TRAFFIC

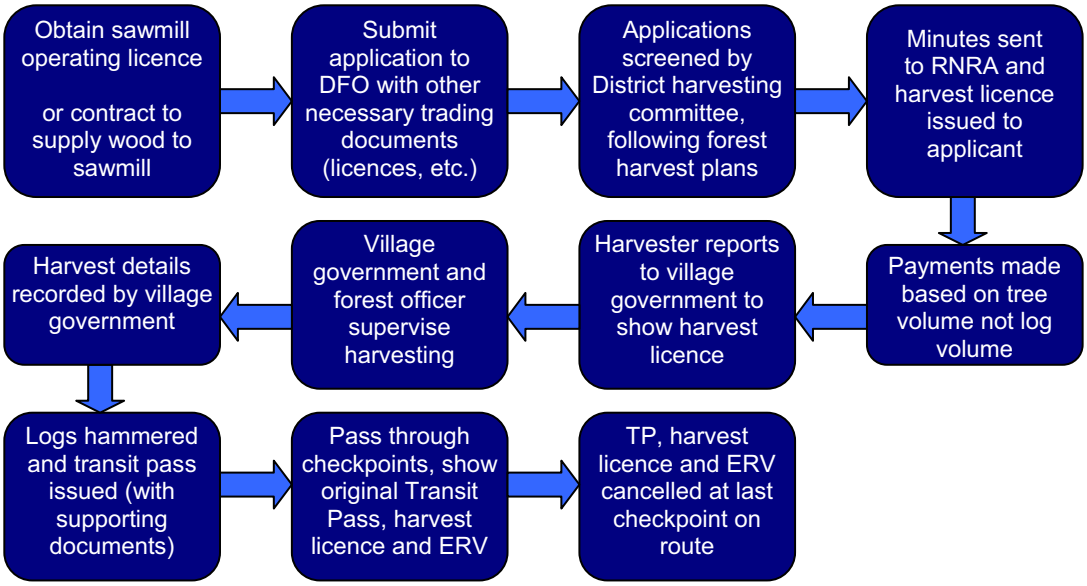
Throughout 2005, various efforts were made to improve procedures for supervising timber harvesting and trade in general. On the 28th January 2005, exactly one year after a similar event, ***a stakeholders meeting was held to discuss measures for improving forest management***, attended by the Minister of Natural Resources and Tourism, FBD officers and traders. In summary, very similar issues were again covered: insufficient staffing, budget and operational equipment; inadequate involvement of stakeholders; poverty; presence of some dishonest traders; and the issue of dual Ministry reporting for DFOs.

The ***MNRT subsequently produced Guidelines on sustainable forest product harvesting*** (FBD, 2005a). These guidelines were distributed to Regional Secretariats, District Forest Officers and District Administrative Secretaries nationwide. They outline the requirements of management plans for each forest harvested, which should be based on assessments of both the forest resource and processing capacity, and specify

annual allowable cuts and felling coupes[87]. Further, the guidelines detail the most important stages of trade regulation as per the *Forest Act No. 14 of 2002* (Figure 54; Annex 3).

Figure 54

Important regulatory steps in timber harvest and internal transport



Source: Guidelines for improving harvesting of forest products (FBD, 2005a).

One important modification to harvesting procedures was the inclusion of the Village Executive Officer from the nearest harvesting area at both the village and district meetings, helping to increase transparency and information flow. It was also agreed that in future, traders would *not* be permitted to pay for *excess* volumes since it would contravene the harvesting plan. Instead, the timber would be confiscated and a fine charged (or further legal action taken). Another change was to only allow implementation of harvest plans after passing the scrutiny of the Director of FBD.

At the same time, ***District Harvest Committees were formed*** (FDB, 2005a). Provided with clear Terms of Reference, a total of TZS 42.2 million (USD 40 000) was sent to facilitate meetings of district harvest committees in 28 districts, with an additional TZS 107 million (USD 101 200) sent to assist cover costs of patrols, supervising harvesting and compliance in general.

A workshop to improve FBD revenue collection was held in August 2005 in light of ongoing concerns over not only the low rates of collection but also insufficient contributions towards forest development and protective services. Numerous options

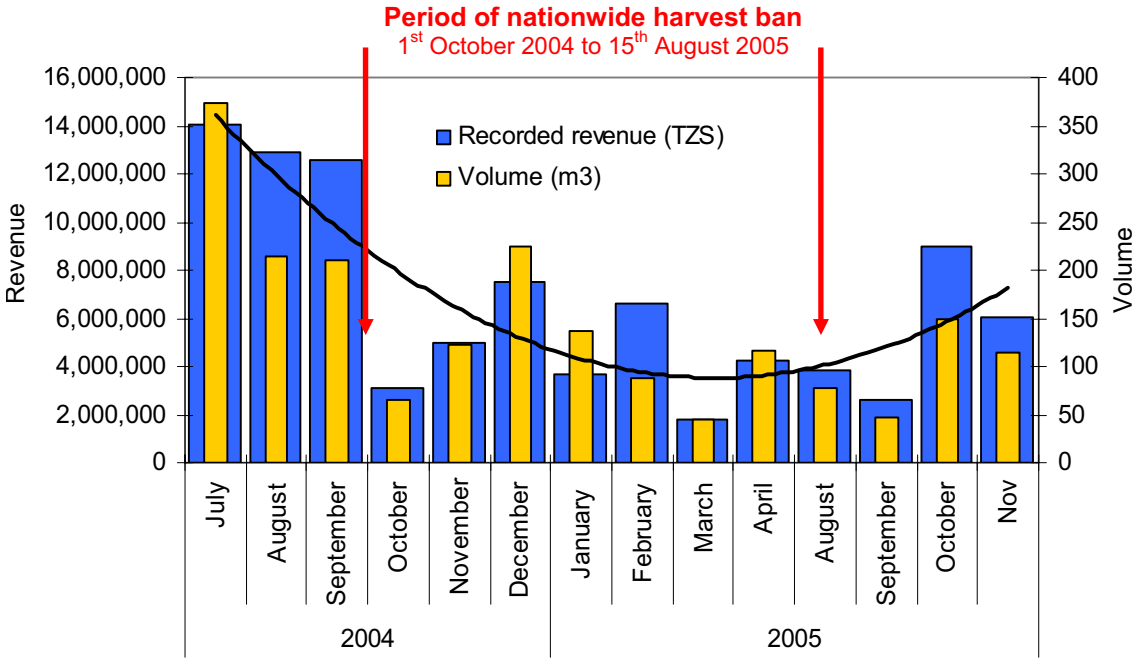
[87] Various workshops conducted training in the *Guidelines on sustainable forest product harvesting*, producing *occular estimates* and implementation of *District Harvesting Plans* (FBD, 2005b).

were presented to improve revenue collection, including the outsourcing of revenue collection, reducing the number of charges, introducing transport-based fees for charcoal and fuel wood, strengthening internal audit functions, introducing market-based forest product pricing system, developing a national forest certification scheme and introducing a log tracking system (SAVCOR, 2005).

On ***15th August 2005, MNRT lifted the ban to allow harvesting in three districts - Rufiji, Kilwa and Handeni***. It should be noted that some companies had already been granted special permission to continue logging and timber trade activities. Figure 55 shows how harvesting continued in Rufiji District during the ban period, albeit at a lower level than normal.

Figure 55

Licenced harvest volumes and revenues around period of ban, Rufiji District



Source: Rufiji District monthly revenue reports.

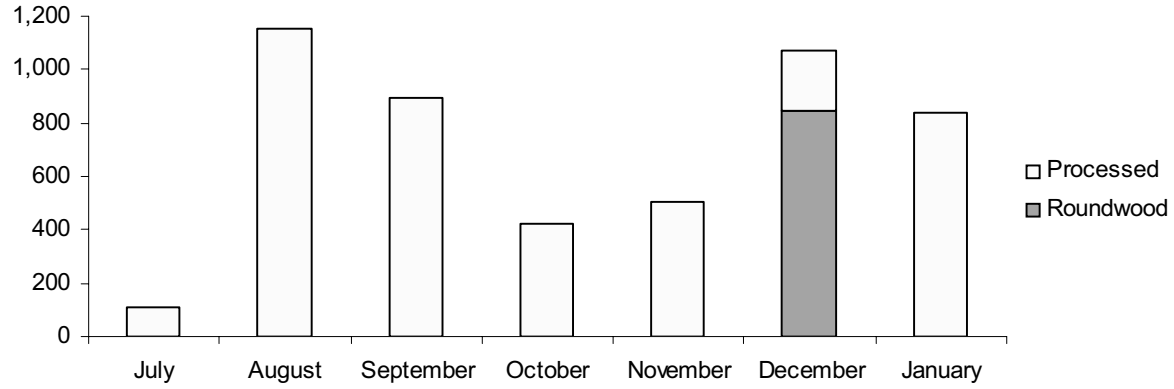
Thereafter, ***harvesting was reopened nationwide on the 1st September 2005***, with all expectations that the *Guidelines on sustainable forest product harvesting* would be followed. Assessments were carried out in many areas, including Rufiji and Kilwa, to ascertain progress with the work of district harvest committees (Senya, 2006).

According to FBD statistics, a total of 9777 m^3 of hardwood logs (91% Teak *Tectona grandis*, nine per cent Paurosa *Swartzia madagascariensis*) and a further 4282 m^3 hardwood sawn timber (ten species) was exported from Tanzania between July 2005 and January 2006. In addition, 116.5 t of sandalwood, 19 671 m^3 soft wood sawn

timber (mostly pine) and large quantities of African Blackwood *Dalbergia melanoxylon* products were also shipped (see chapter 6.2). Official statistics show processed timber dominating indigenous hardwood exports during the second half of 2005 (Figure 56), although it was later apparent that some companies continued to smuggle raw logs (see below).

Figure 56

Indigenous hardwood (not including *Tectona grandis*) exports, July 2004 to January 2005



Source: Forestry and Beekeeping Division.

An assessment was again made regarding the status of logs in southern Tanzania and coastal areas. On the 18th October 2005, the MNRT held a meeting to discuss the issue of logs, where it was clarified that over 4000 m^3 were found in southern Tanzania and over 1000 m^3 in other districts (Table 47). It was not possible to differentiate between logs left lying in villages after the 2004 inspection exercise, logs left in the forest since before 1st July 2004, logs felled during early 2005, and newly felled logs since the ban was lifted 15th August.

A further 8044 m^3 of logs and 817 t of sandalwood were counted during inspections in Dar es Salaam (Table 48). Three species constituted 86% of all logs counted - *Baphia kirkii, Millettia stuhlmannii* and *Combretum imberbe*. For comparison, the same three species dominated exports (87%) between July 2005 and January 2006 (Figure 13).

In summary, there was a constant build-up of logs in Dar es Salaam and throughout southern Tanzania during 2005, with harvesting intensity clearly exceeding processing and export levels. In addition, continued reports of illegal logging were again being voiced. Indeed, a cursory look at the volumes of timber officially allowed for harvest (e.g. 1439 m^3 in the whole of Lindi Region between 15th August 2005 and 26th January 2006) showed them barely significant when compared to kind of log volumes counted in

villages (4083 m^3), Dar es Salaam (8044 m^3) and exported (4282 m^3 hardwood sawn timber between July 2005 and January 2006).

Table 47

Quantities of logs distributed around coastal and southern Tanzania, late 2005

District	No. logs	Volume (m^3)	District	No. logs	Volume (m^3)
Southern Tanzania:			Other districts:		
Rufiji	4 258	1 250.39	Kisarawe	434	213.20
Kilwa	3 355	739.44	Bagamoyo	243	107.20
Liwale	585	234.00	Kilindi	356	142.40
Lindi	4 000	1 600.00	Handeni	36	14.40
Nachingwea	521	259.12			
Subtotal	**12 719**	**4 082.95**	**Subtotal**	**1 069**	**477.20**

Source: Forestry and Beekeeping Division.

Table 48

Results of log inspection in Dar es Salaam, late 2005

Species	Volume	Species	Volume
Baphia kirkii	3161.2 m^3	Kiswahili 'Mkarambati'	87.2 m^3
Millettia stuhlmannii	2661.5 m^3	Kiswahili 'Mgama'	62.9 m^3
Combretum imberbe	1100.0 m^3	*Swartzia madagascariensis*	18.9 m^3
Pericopsis angolensis	443.6 m^3	*Erythrophleum africanum*	18.4 m^3
Tectona grandis	380.4 m^3	*Brachystegia dicolor*	10.0 m^3
Kiswahili 'Muhuhu'	100.0 m^3	Sandalwood	816.5 t

Source: Forestry and Beekeeping Division.

Throughout 2005, and in line with continued log accumulation in Dar es Salaam, timber exporters maintained considerable pressure on FBD to allow the exports of limited quantities of indigenous hardwood products. Ultimately, ***a total of 25 companies were given permission to export 32 660 m^3 and 220 tonnes of various species between 1st December 2005 and 30th March 2006*** (25 390 m^3 teak logs, 2 700 m^3 other hardwood logs, 4 350 m^3 processed wood, 220 m^3 and 220 tonnes of sandalwood). Permitted exports of indigenous hardwoods (not including sandalwood) totalled 7250 m^3.

Credit: Antje Ahrends

Logs awaiting permissiont for transport to Dar es Salaam

2006

During January 2006, another review of timber harvest and transport procedures was conducted by FBD forest officers, Regional Natural Resource Advisors and TANAPA officers in several regions, which focussed on assessing implementation of the *Guidelines* (including the performance of District harvest committees and adequacy of current procedures and general supervision).

Unfortunately, despite the numerous measures over the past few years (e.g. periodic bans, inventories, sawmill assessment, revised guidelines, district harvest committees), the correct harvesting and trade procedures were still not being undertaken and supervised in the mandated manner. Accordingly, the ***harvesting and export of hardwood products from natural forests was again banned on 27th January 2006*** (Figure 53). Out of the 25 companies previously given permission to export timber products before 31st March, only one (restricted to teak), Fibreboards (2000) Ltd., was allowed to continue (Table 51). All other export permits were cancelled[88]. A report of the principle findings of the review team in early February included the following:

i. Whilst some districts had formed harvest committees, others had not (e.g. all districts in Coast Region) and in general there were poor procedures in the issuance and management of harvest licences;

ii. There was a huge`shortage of staff, transport and finances at district and regional level, which affected key management needs such as conducting forest inventories and making follow up of the numbers of trees and areas harvested;

iii. Many village communities lacked awareness regarding forest conservation,` the environment in general and sustainable use;

iv. Communication gaps were apparent, including making sure that LGAs are informed of their responsibilities in managing timber harvesting; and

v. Weak supervision of the law (especially at village, district and regional levels) and dishonesty amongst local public officials.

Amongst the main internal FBD recommendations emerging during January and February 2006 were the following:

i. DFOs to report directly to Director FBD (or to PS MNRT) instead of DED;

ii. Regional Secretariat to include forestry expertise;

iii. Licence fees to increase and system of issuing licences to improve;

iv. Permanent zonal inspection teams to ensure compliance;

v. Salaries and benefits for public officials to increase.

[88] Government Notice No. 12 of 27th January 2006.

vi. Harvesting of the relatively abundant *Brachystegia* spp. to help reduce pressure on other more threatened species to be encouraged;

vii. Involvement of village and district government in ensuring compliance to be strengthened;

viii. Forests to be resurveyed and mapped to facilitate their protection and preparation of harvest plans;

ix. Forest encroachers to be evicted; and

x. Priority attention to be given towards developing mechanisms to compensate local communities and reinforce their commitment to participatory forest management.

Results from patrols during the same period served to highlight compliance challenges and enforcement results during this period. For example, 42 people were arrested in a two-week period between 16th February and 8th March in Coast and Tanga Regions due to irregular harvesting and transport of 244 logs (40 m^3), 103.57 m^3 of planks, 193 bags of charcoal bags and 26 poles. Seizures of varied timber products also continued within Dar es Salaam (Table 49). In May, the Minister of Natural Resources and Tourism, Anthony Diallo, was quoted in local media as saying, *"we have established that between 15 and 20 containers of logs are smuggled out of the country every week"* (The Guardian, 10th May).

Table 49

Timber products confiscated during patrols in Dar es Salaam, January and February 2006

Week	Details of confiscations	Fines [α]
6-13 Jan	1 m^3 logs; 3107 planks; 2 containers and 5 m^3 sandalwood [β]	TZS 3 570 565
14-19 Jan	1m^3 logs; 120.7 m^3 planks	TZS 660 000
20-26 Jan	14.26 m^3 frames; 300 planks; 150 posts	TZS 1 087 311
27 Jan – 1 Feb	18.7 m^3 planks; 8 containers of logs	
2-9 Feb	5 m^3 sandalwood [β]; 137.3 m^3 timber; 90 bags charcoal	TZS 12 576 680
10-16 Feb	12.5 m^3 logs; 47.7 m3 planks; 28 window frames	TZS 4 919 975
17-23 Feb	340 bags charcoal	TZS 3 865 000

Note: [α] Some cases remain outstanding police cases.

[β] Sandalwood smuggling appears to have surged in recent times; seven seizures were made between the last week of November and end of February totalling 98 t, four containers and 35 m^3.

Surprise visits to six holding yards in Dar es Salaam in March by the Minister of Natural Resources and Tourism again highlighted compliance problems, revealing piles of logs (some rotting) without proper documentation, whilst at the same time some sawmills were suffering from a lack of timber materials since the ban. Some containers

contained sawn wood exceeding six inches, whilst others contained unprocessed logs, both in contravention to current regulations. The presence of newly harvested logs further defied the government ban on exporting unprocessed timber.

As a result of these observations, ***all logs owners in Dar es Salaam were to be advised to sell logs in Tanzania within a time period to be announced*** (and FBD was instructed to pursue those companies who were not abiding existing instructions). The MNRT was also tasked to pursue options for outsourcing revenue collection and to continue investigating other holding yards in Dar es Salaam. In early ***April 2006, FBD produced new guidelines on the development and harvesting of indigenous forest products***. These lead to ***further revisions to forest legislation***, including the *Forest Amendment Regulations, 2006* and the *Forest (Charcoal Preparation, Transportation and Selling) Regulations, 2006.*

The salaries and expenses of forestry and beekeeping for 2006/2007 was estimated at TZS 9.5 billion (USD 7.7 million), the highest of all subvotes (units) within MNRT.

8.5.2 Governance concerns with management interventions

In addition to widespread existence of bribery in timber trade (chapter 8.4.3) and the organised collusive networks of favouritism, patronage and cronyism (chapter 8.4.4), perhaps the most serious concerns from a governance perspective arise when management decisions themselves are influenced in the interests of relatively few. This section provides some examples.

Exceptions to nationwide bans and relaxation of trade restrictions

While three nationwide bans on harvesting have been introduced since December 2003, in each case there have been exceptions with some companies given apparently preferential treatment. For example, within four days of the eleven-month harvest ban that started on 1st October 2004, a company specialising in *Dalbergia melanoxylon* was allowed by FBD to continue harvesting in Kilwa District. This company carried strong political connections. By March 2005, some 14 companies had been granted permission to continue logging, transporting and/or exports. The issue at stake here is the ***basis for allowing certain companies to continue harvesting and trading, whilst denying others, when the absence of clear knowledge over the status of the resource at that time should have applied to all companies***.

Further, it was ironic that the first company to be allowed to harvest in southern Tanzania during this 'ban' specialised in *Dalbergia melanoxylon*, the one hardwood species for which there was more evidence of systematic clearance of export-quailty trees than any other hardwood tree species, demonstrating that such depletion is driving

harvesting progressively southwards (De Waal, 2001; Jenkins *et al.,* 2001, 2002; Milledge *et al.*, 2005c).

It was also evident that traders initially denied harvesting rights during the ban used the fact that other companies had been given exceptions to gain the same 'scarce benefits'. However, timber traders ultimately given permission to harvest and trade during bans were larger companies with influence, as oppose to smaller, local companies (e.g. members of UWAMBALI in Kilwa District). During the harvest ban imposed in the first half of 2006, some traders continued to lobby those companies previously granted preferential treatment to again apply their influence.

The ramifications of making these exceptions would perhaps not be particularly serious if it had not lead to further confusion over the legality of officially-mandated harvesting and trade by these selected companies. In reality, logs located in village or forest landing sites during the second half of 2005 may have actually originated from a range of different sources (Figure 57). For example, they included:

i. logs verified as *legally* harvested during inspections carried out during mid-2004, but ultimately not removed;
ii. logs verified as *illegally* harvested during the same inspections, subsequently auctioned but also not removed;
iii. logs harvested *legally and illegally* during 2004 but left out in the forest, later to be brought to landing sites;
iv. logs harvested *legally and illegally* by companies given special permission to harvest during the October 2004 – September 2005 ban;
v. logs harvested *illegally* by other companies/individuals during the ban period;
vi. logs harvested *legally* and *illegally* by licenced companies following the lifting of the ban in September 2005; and
vii. logs harvested *illegally* by other companies following lifting of the ban.

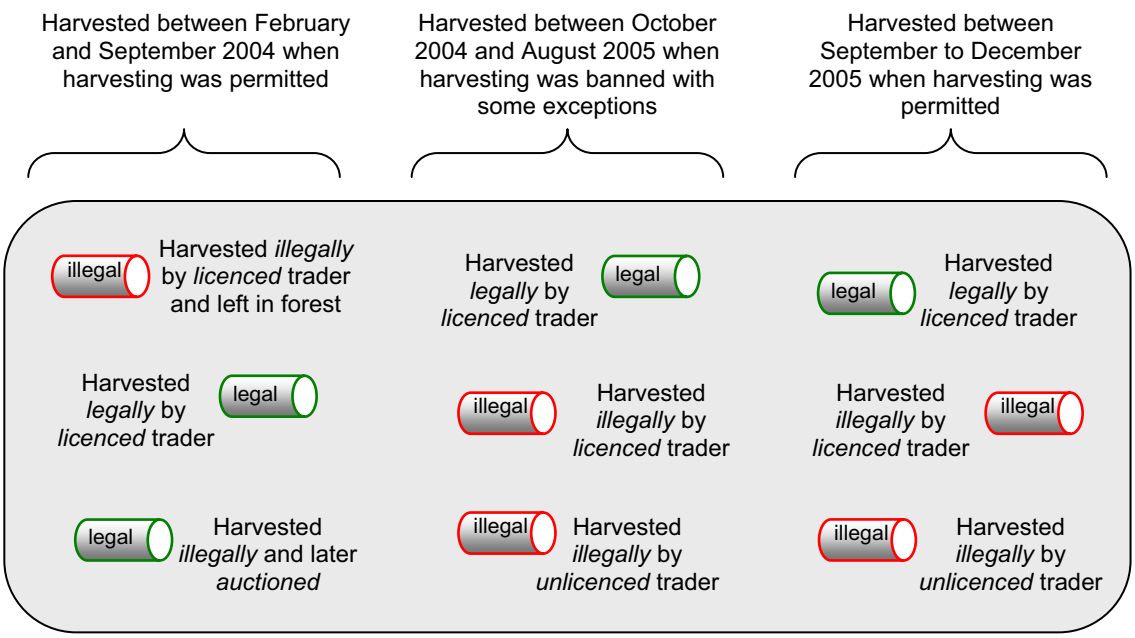
Since some companies were allowed to harvest whilst others were restricted to collecting logs lying in the forests, and because the hammering of logs usually occurred in transit or during loading for transport to Dar es Salaam, it was remarkably ***easy to mix logs from different sources, different periods and different legality in the absence of reliable means to identify individual logs***.

Credit: Simon Milledge/TRAFFIC

Felled Sclerecarya birrea tree

Figure 57

Diagram of a landing site at end of 2005 showing likely diversity in the origin of logs



By the time the ban was lifted in the three districts, there were still many logs left uncollected in various villages in southern Tanzania. For example, following a directive from FBD on 22nd July 2005, an assessment was made of the logs remaining in Rufiji District. By mid-August, a total of 769 logs with a volume of 471 m^3 were still lying in eleven villages, including both logs that had been verified as legal during 2004 and others that were subsequently auctioned (Table 50).

Table 50

Quantities of logs remaining at villages in Rufiji District, mid-August 2005

Species	No. logs	Volume m^3	Av m^3/log
Kiswahili 'Mgama'	646	408.0	0.63
Acacia nigrescens	123	62.9	0.51
Total	**769**	**470.9**	**0.61**

Source: Letter to Director FBD from Zonal Mangrove Manager, Central Zone, dated 15th August 2005.

Questionable preferential treatment has not only been limited to the harvest side of the trade chain, but also at the point of export. For example, the Minister of NRT granted permission for some 25 companies to export their 'back log' of 32 660 m^3 and 220 t of various timber products between 1st December 2005 and 30th March 2006 (Table 51).

Table 51

Companies given permission to export timber products between 1st December 2005 and 31st March 2006, and subsequently prohibited

Company	Sleepers (m^3)					Logs (m^3)			Subtotals (m^3)	Sandalwood (t)
	Combretum imberbe	Erythrophleum africanum	Mkulungu	Baphia kirkii	Millettia stuhlmannii	Swartzia madagascariensis	Sandalwood	Tectona grandis		
ABG African Link				300	300				600	
Adept Implex					100			200	300	
AGM International	50			70					120	
AR Sheikh					500				500	
BDK & Sons							20		20	
Cielmac								100	100	
EPAC Resources				200					200	
Equator Natural Essential										70
Eva Enterprises							200		200	
Fibreboards (2000) Ltd								25 000	25 000	
FQI Resources Management			100	100					200	
Junior Investment	250			300					550	
Kenwood Enterprises						700			700	
Mbagala Sawmills Ltd	200				200				400	
MICCO		200							200	
Natural Wood (T) Ltd						1500			1500	
Paula Inter Business						100		90	190	
Rofal General Traders		100			100				200	
RS Investment			100	100	100	200			500	
Sierra Ltd										70
State Enter Trade	130				150				280	
TABECO										80
VNS Commercial Company			100			200			300	
YGF Investment	100				50				150	
Z & H Holdings Co. Ltd	250			200					450	
Total	**980**	**300**	**300**	**1270**	**1500**	**2700**	**220**	**25 390**	**32 660**	**220**

Source: Forestry and Beekeeping Division.

This permission included significant quantities of round wood, in contravention to the *Forest Act of 2002*. According to FBD sources, not only was the original list of companies to be given this permission extended from less than four companies to 25 without clear justification, but also the timing was questionable, occurring just before

the fourth phase government was inaugurated (and before modified harvesting procedures had been completed). It is apparent that the organised and influential network of timber traders and senior public officials played a major part in this governance shortfall. For example, analysis of 19 of these companies showed only four appeared to lack the patronage, direct involvement or other personal connections with senior public officials (Tanzanian or foreign).

In recognition of these deficiencies, the revocation of this permission on 24th January 2006 was a positive step taken by FBD to enforce the provisions of the *Forest Act of 2002*, to encourage in-country processing and to allow time to reassess internal FBD procedures.

Reducing the effectiveness of enforcement

Overall, the *Forest Act of 2002* provides a comprehensive legal framework with large components devoted to the regulation of timber product utilisation and community-based forest management. However, many stakeholders shared the perception that in terms of enforcing the provisions relating to timber trade, smaller-scale traders disproportionately bore the brunt of targeted enforcement exercises. On the other hand, ***larger and well-connected companies appeared to bear remarkably low risks in operating illegally***. Not only were they more likely to receive early warning of enforcement exercises before they began[89] (e.g. one trader offloading logs from some 20 log trucks within an hour of the harvest ban being announced in January 2006) but also the relatively small size of penalties did not provide much of a deterrent.

For many timber traders, the long-term risks of transporting irregular timber products had been low since enforcement efficiency was so low, while under the worst scenario of receiving punitive action, probably only outstanding dues and a relatively small fine would have been paid. Confiscation was rare – usually involving payment defaulters – whilst legal action and/or the revocation of licences were almost unheard of. As a result, some traders with influence continued to operate despite being repeat offenders. For example, one individual found with 30 containers of planks instead of the allowed five at the end of September 2005 was again intercepted with irregularities involving over 1200 raw logs (336.3 m^3) in 25 containers just six weeks later. Another trader was found in possession of 25 m^3 of sandalwood after having ten containers containing raw logs discovered at Dar es Salaam port in November 2005.

The well publicized investigations of logs during 2004 (at Dar es Salaam port, container yards and village landing sites throughout southern Tanzania) highlighted further

[89] A review of forest law enforcement impacts on rural livelihoods in five countries also found that *"enforcement is ineffective where … those charged with enforcement may be complicit in illegalities"* (Colchester *et al*., 2006).

concerns over the effectiveness of enforcement. For many observers, there was a notable ***absence of serious legal action taken against offending companies, despite the scale of infractions***. Whilst defaulters ultimately paid fines calculated according to the excess volume of log in their possession, amounting to some TZS 640 million (USD 612 400) overall, no futher legal action was taken, and these same traders were subequently given the chance to purchase other confiscated logs by auction.

Prior to enactment of the *Forest Act of 2002* in July 2004 and subsequent inspections, the majority of traders had some form of linkage with senior public officials. This almost certainly influenced the likelihood of legal action being taken. Indeed, a similar pattern has been witnessed in other countries - *"there is a tendency for crackdowns to target poor people and small-scale operators and avoid those who are well connected and politically protected"* (Colchester *et al*., 2006). Further evidence of the strong influence gained through personal connections is shown in Figure 58, highlighting how similarly high proportions of companies ultimately allowed to export forest products between July and December 2005 had linkages with senior public officials, as was the case in 2004. The same pattern was evident amongst the limited number of companies permitted to export forest products between December 2005 and March 2006 (but subsequently revoked in January 2006).

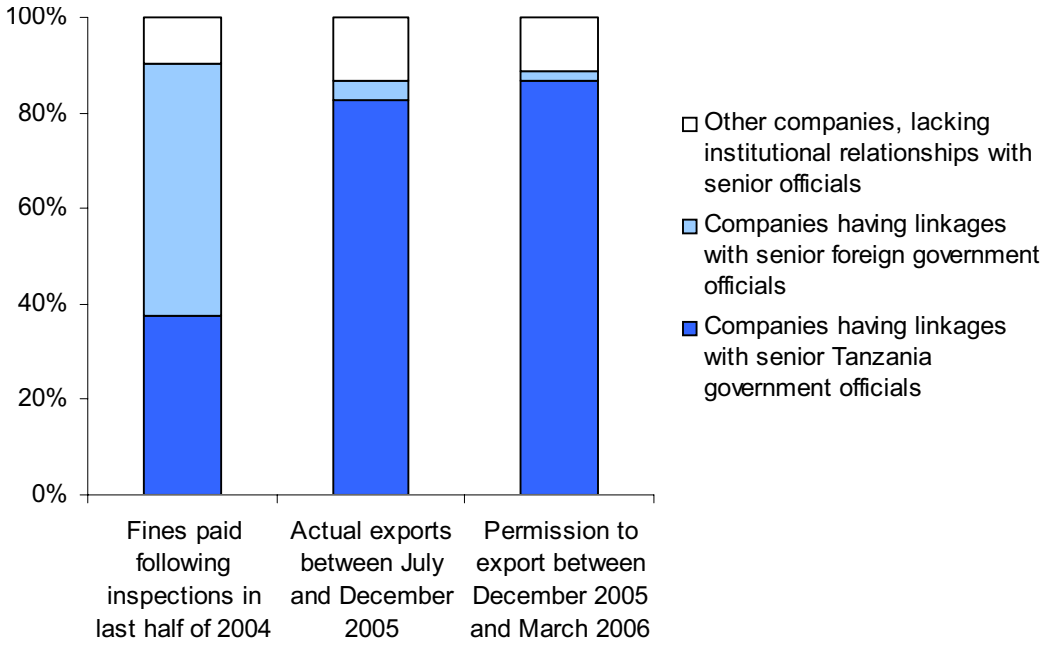
Whilst the overall proportion of timber traders having linkages with senior public officials remained high throughout 2004 into early 2006, a notable change has been the much higher prevalence of traders whose patronage and influence comes from Tanzanian public officials (dark-shaded bar sections in Figure 58). It appears that linkages with Tanzanian public officials became more important in securing permission to export timber than linkages with foreign public officials (e.g. diplomatic missions).

Arguably the most effective node for timber trade enforcement is at the shipping ports, at least for exported products. Ports act as a 'bottleneck' in the trade chain, whereby all timber products necessarily collect at a relatively specific location, thus making monitoring easier. The opposite applies to monitoring compliance in forests where trade activities are dispersed over a huge area. Following the enactment of the *Forest Act of 2002* on 1st July 2004, strict enforcement of the export embargo truly did have an effect on harvesting, with almost all large-scale timber trade halting within two months (Milledge *et al.*, 2005a). However, recent experience as also demonstrated how ***even an export ban enforced at a single location – Dar es Salaam port – can be undermined through a combination of deception and collusion***. Newspaper reports during May 2006 quoted MNRT claims that between 15 and 20 containers weekly were being shipped undetected[90].

[90] Misdeclarations of timber as scrap metal and sim sim were common methods of smuggling shipments from Tanzania during 2005. For example, twelve containers containing 153 m^3 of *Baphia kirkii*, *Millettia stuhlmannii* and

Figure 58

Proportion of timber companies with linkages to senior public officials since 2004



Note: Bar 1 presents data on timber fines (TZS), bars 2 and 3 present timber volumes (m^3).

Stakeholders reported that a combination of factors ensured the continuation of illegal exports of timber during the ban in 2005: high investment levels (including downpayments on purchasing and transporting logs from the forest); high expectations (that they would ultimately be allowed to export); and influential relationships to facilitate collusive behaviour.

Figure 59

Theoretical and actual effects of recent timber export bans in Tanzania

(a) Theoretical

	No ban	Ban
Trade	✓	✗
Revenue	✓	✗

(b) Actual

Ban
✓
✗

An analogy is the flow of water from an overhead tank to irrigate vegetables. Holes in the tank will leak, but the loss will be minimal providing water is always flowing to the

Acacia nigrescens logs were confiscated on the 20th October 2005 at a yard in Dar es Salaam port on their way to India, accompanied with documentation detailing heavy metal scraps.

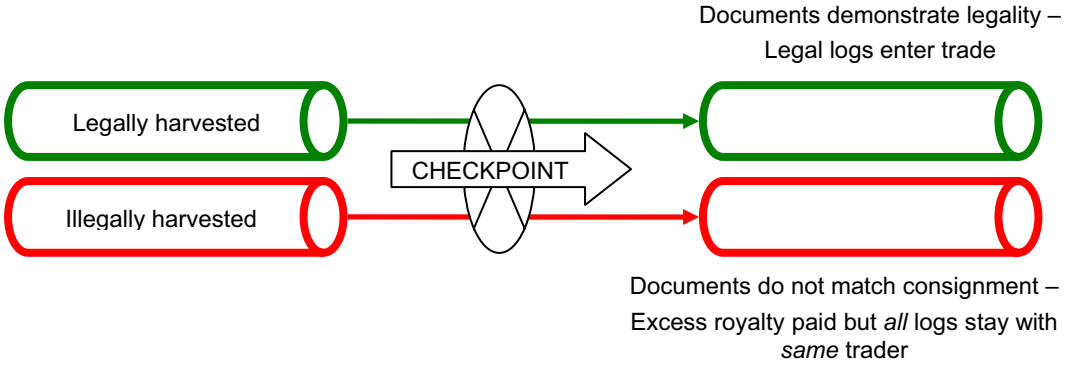
vegetables. However, if the holes are not properly sealed and the tap closed, more water will actually be lost as pressure forces water out of the holes. In the same way, banning timber exports (closing the tap) in the absence of effective measures (sealing holes in tank) will just lead to more illegal shipments (lost water). In reality, recent timber export bans may have resulted in zero revenue collection but they have only reduced – not stopped – timber shipments (Figure 59).

In the case of regulating the transport of timber products through checkpoints, a combination of factors, including bribery (see chapter 8.4.3), well-connected traders, and low priority placed on ensuring volumes of timber in trade match harvest plans, enabled many defaulters to ultimately retain and sell all their timber on the open market (Figure 60a). This dynamic undermined the sustainable harvest principles of a licensing system (since any influential trader exceeding permitted volumes would simply pay the difference/excess). Indeed, the ***longer-term impact of placing low priority on ensuring volumes of timber in trade match harvest plans is much higher than the more publicized issue of bribery at checkpints***.

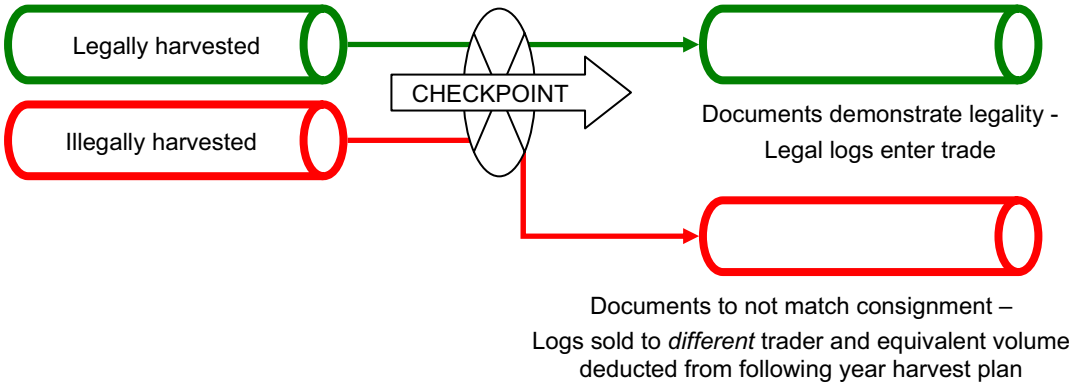
Figure 60

Alternate models of timber product compliance at checkpoints

(a) Leniency and absence of district harvest plans



(b) Strict enforcement and harvest licence issued following district harvest plans



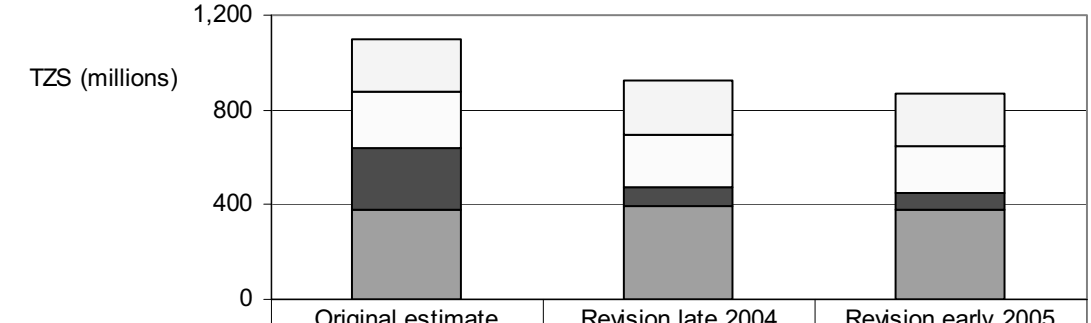
It is hoped that the current directive to ensure defaulters are not allowed to reclaim excess timber products – thereby helping to ensure trade levels conform to harvest plans – is effectively implemented to increase the risk to traders operating illegally (Figure 60b). A further consideration is for any excess volume to be deducted from or applied against the allowable harvest volume in the next year to minimize the impact of overharvesting.

Private sector control over management authority

Considering the close relationships between many timber companies and senior public officials, and the manifestations described above (i.e. exceptions to harvesting/export restrictions and low enforcement risks), it was hardly surprising that other areas of timber trade management tended to be heavily influenced by the private sector. Three examples serve to highlight how the ***timber trade private sector successfully negotiated decisions to their benefit, apparently exerting control over FBD***: re-inspection of logs in landings sites throughout southern Tanzania (which reportedly allowed sufficient time for some unscrupulous traders to fraudulently manufacture documentation as well as move logs); re-inspection of logs in Dar es Salaam (the resultant drop in anticipated revenue is shown in Figure 61); and re-calculation of fines for excess goods based on log volume instead of tree volume. It is debatable, however, how serious this level of private sector control over the management authority is in reality.

Figure 61

Expected FBD revenue from confiscated timber products



	Original estimate	Revision late 2004	Revision early 2005
Public auction	227.1	227.1	227.1
Dar es Salaam port	230.1	219.7	198.1
Dar es Salaam yards	266.4	79.8	63.7
Lindi, Coast and Mtwara	376.1	393.5	382.7

Note: Downward revision of anticipated revenue in late 2004 of TZS 179.6 million (USD 172 000) was due to the exemption of one company from payment at Dar es Salaam port, re-verification and re-measuring of logs at Dar es Salaam yards, and additional traders declaring logs in southern Tanzania. Reasons for further downward revision of TZS 48.6 million (USD 46 000) by early 2005 are unknown.

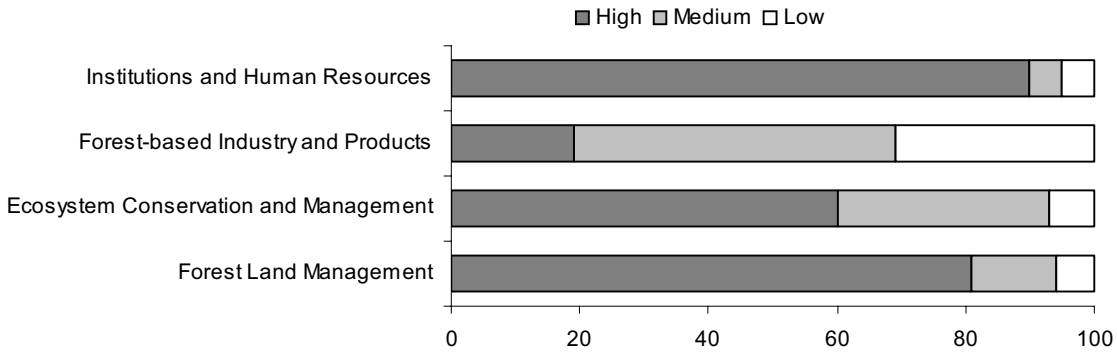
Expenditure priorities, wasteful disbursements and embezzlement

At the beginning of the current ten-year *National Forest Programme (2001-2010)*, various stakeholders combined to prioritise activities falling under each of the four component programmes (Figure 62). Using a three-scale rating (High, Medium and Low), by far the lowest priority was given to the component programme, *Forest-based Industry and Products*. There is little doubt that the ***low rating will have contributed towards relatively lower urgency and funding levels for forest product trade elements*** since 2001, both of which may have contributed towards the type of scenario experienced in southern Tanzania over the same period.

On the other hand, greater emphasis placed on *Forest-based Industry and Products* could be argued as not only benefiting trade and industry, but also forest management in general. The outcome of the recent *National Forest Programme* review will be important in this respect.

Figure 62

Priority ratings given to four component programmes of NFP



Source: National Forest Programme in Tanzania (FBD, 2001).

Following the allocation of available funds to restricted budget lines, ***wasteful expenditures can be another reason for lowering management performance and overall governance***. With respect to timber trade, some observers both within and outside FBD have pondered over the high expenses incurred inspecting logs and patrolling Dar es Salaam, Coast, Lindi and Mtwara Regions since mid-2004. For example, some TZS 445.5 million (USD 426 300) had been spent by 1st December 2004, after less than five months.

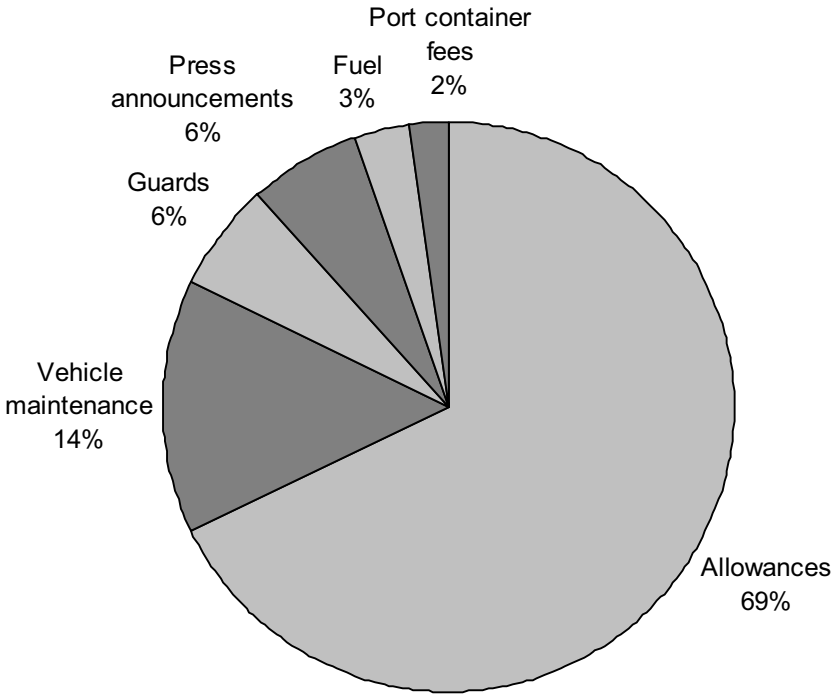
Concerns over enforcement-related expenditures have been focussed around two main areas. Firstly, ***a very large proportion of the income from excess log payments and auctions was spent on inspections and patrolling exercises, as opposed to using it for other development activities***. For example, expenditure after five months (by the

beginning of December 2004) was already equivalent to 51% of the anticipated income from timber confiscations. There is little doubt that this percentage rose rapidly throughout 2005.

Secondly, and linked to the above observation, ***perverse incentives may arise through the large proportion of expenditures used to pay allowances*** to forest officers involved in these inspections and patrols (Figure 63). Whilst the use of field allowances is a justified means to increase remuneration and motivation of forest officers, numerous stakeholders identified that the opportunities for inspection and surveillance teams to vastly increase personal allowance payments during 2004 and 2005 acted not only as a catalyst for high expenditure levels, but also may have resulted in inefficient uses of limited resources. A performance-based incentive scheme is arguably more appropriate.

Figure 63

Breakdown of expenditures relating to log inspections, 12th July to 1st December 2004



Source: Forestry and Beekeeping Division.

From a governance perspective, ***embezzlement is worse than poor prioritisation and wasteful expenditures***. Embezzlement – *"the deliberate fraudulent appropriation or theft of resources by those put to administer it"* – may not be considered as corruption from a strict legal point of view, but is included in broader definitions. It is particularly damaging where the general public is deprived of services as a result of public fund shortfalls, and it can be more important to maintaining a ruling elite than, say, extraction through bribes (Andvig *et al.*, 2000).

Measuring levels of embezzlement was out of the scope of this study since it requires access to detailed financial records. However, a cursory look at records from Rufiji District over a ten-month period showed an apparent discrepancy between recorded and expected revenues of over TZS 11 million (USD 10 400) [91] (Table 52). During the same period, a District Forest Officer from Rufiji was suspended pending investigation.

Table 52

Log harvest revenue (TZS) discrepancies in Rufiji District, July 2004 to April 2005

Volume issued on licence by class (m3)					Recorded revenue in monthly reports	Expected revenue based on volumes	Discrepancy
I	II	III	IV	V			
185	879	4	105	421	71 209 470	82 713 964	11 504 567

Note: Table does not include carvings recorded in kilogrammes.

Source: Rufiji District monthly revenue reports.

Uneven disciplinary and legal action

In general, most stakeholders raised concern over government commitment to erase corruption in the forestry sector, with ***staff transfers and temporary suspensions reported as an insufficient disincentive to those involved***.

The severity of disciplinary action taken against one senior FBD official in 2004-2005 was welcomed at the time by many observers as demonstrating a commitment to punish internal involvement. At the time, there were also stakeholders, including FBD staff, who expressed serious concern as to the fairness of this disciplinary action, especially since apparent leniency appeared to have been shown towards other staff. ***Some staff claimed demoralization following such cases of perceived victimisation*** to their colleagues. Irrespective of whether the disciplinary action assigned was the right course of action, recent history appears to demonstrate that it did *not* solve the problem of internal collusion in illegal timber trade activities.

8.5.3 Governance as a limiting factor

Determining appropriate management interventions requires holistic planning to ensure all possible causes of a particular problem are addressed. In reality, most efforts are normally placed on solving the most *observable symptoms* of a problem, as well as the most *immediate causes*. However, ***a superficial approach to solving management issues may result in certain root causes and driving forces being unaddressed, with the end result that minor problems become chronic***. In the worst scenario, they may

[91] The main discrepancy was harvest licence payments seemingly not matching set class rates.

become quite destructive influences. The importance of addressing key drivers both within and outside the forest sector was highlighted in a recent review of forest law enforcement and governance (World Bank, 2006).

One analogy shown in Figure 64 (a) is the case of a simple headache. Left unattended, a simple headache can ultimately lead to reduced work output and even depression. Depression in turn becomes a destructive influence on the state of mind in a kind of negative feedback loop. Immediate solutions, such as taking medicine or resting, will provide a 'quick fix' but invariably will not address driving forces such as an unmanageable work load and excessive deadlines. This analogy highlights the need for complimentary measures that address root causes that are the underlying driving forces in addition to observable symptoms.

Credit: Simon Milledge/TRAFFIC

Aerial view of coastal forest, Rufiji District

In the case of timber trade, the rapid increase in uncontrolled harvesting and trade can rapidly spiral into conditions that ultimately undermine the three pillars of NSGRP (see chapter 9). Again, this can have a destructive influence on not only continued levels of uncontrolled and illegal activities, but also governance itself (Figure 64 (b)). What is important from a management perspective is to ensure that responses address root causes and driving forces in addition to observable symptoms and immediate causes.

Unfortunately, the reality over the past few years (see chapter 8.5.1) is that the majority of interventions have focussed on relatively 'quick fixes' such as regulatory controls and improvements to management capacity (e.g. increased staffing, PFM, budget support and field transport). Most of these interventions have been technically-orientated. Whilst highly commendable, these measures fall short of the response required to address some root causes (e.g. governance shortfalls including corruption) and driving forces (e.g. impact of increasing global demand for hardwood products)[92]. A suite of other interventions are required to ensure current investments are not undermined.

Examples of timber trade regulatory controls since 2003

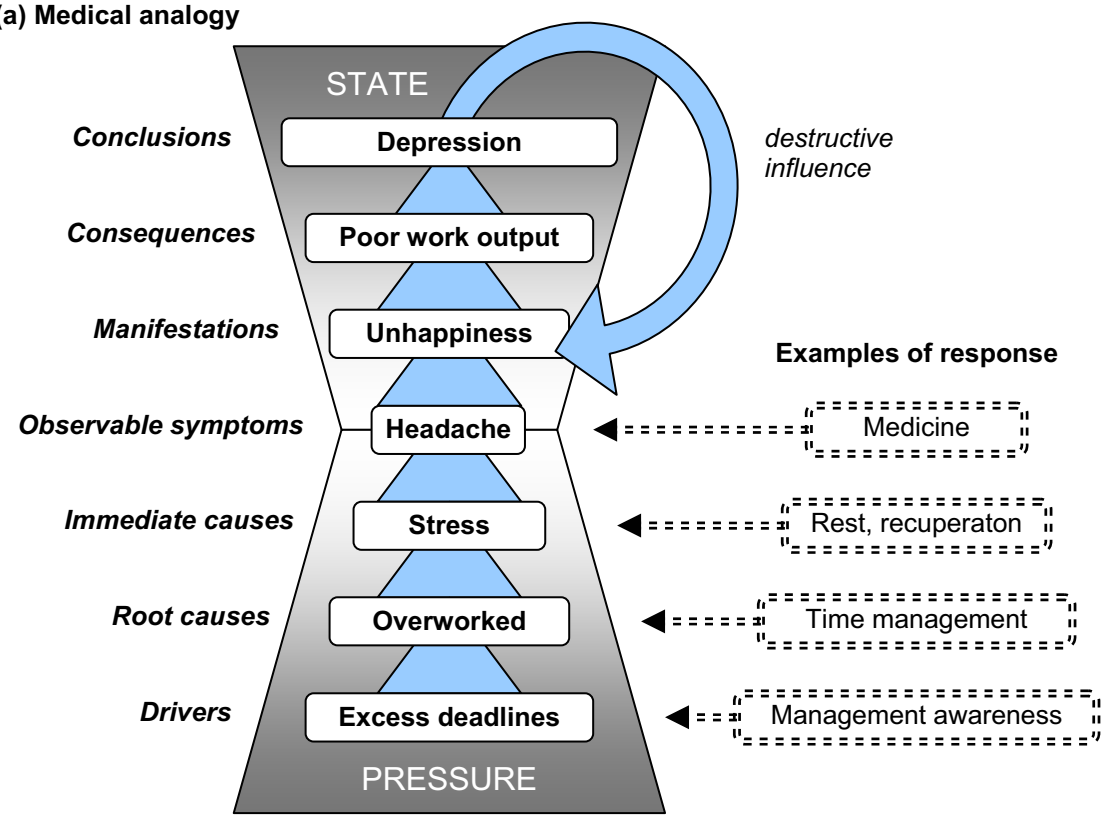
Total harvest ban
Total export ban
Species harvest restrictions
Area-specific harvest restrictions
Restrictions on specific products
Ban on debarking
Restrictions on ports of exit
Ban on nocturnal transport
Revised licensing procedures

[92] Regarding environmental conservation, President Kikwete's inaugural speech delivered on 30th December 2005 did specifically mention the effects of deforestation, "*reckless harvesting of trees and uncontrolled forest fires have resulted in water resources drying up, rivers drying up, and biodiversity being put under great threat*" (Kikwete, 2005). However, little priority was given to PFM and governance aspects of forestry, with six of the nine guidelines focussing on tree planting, two on mining and one on reporting.

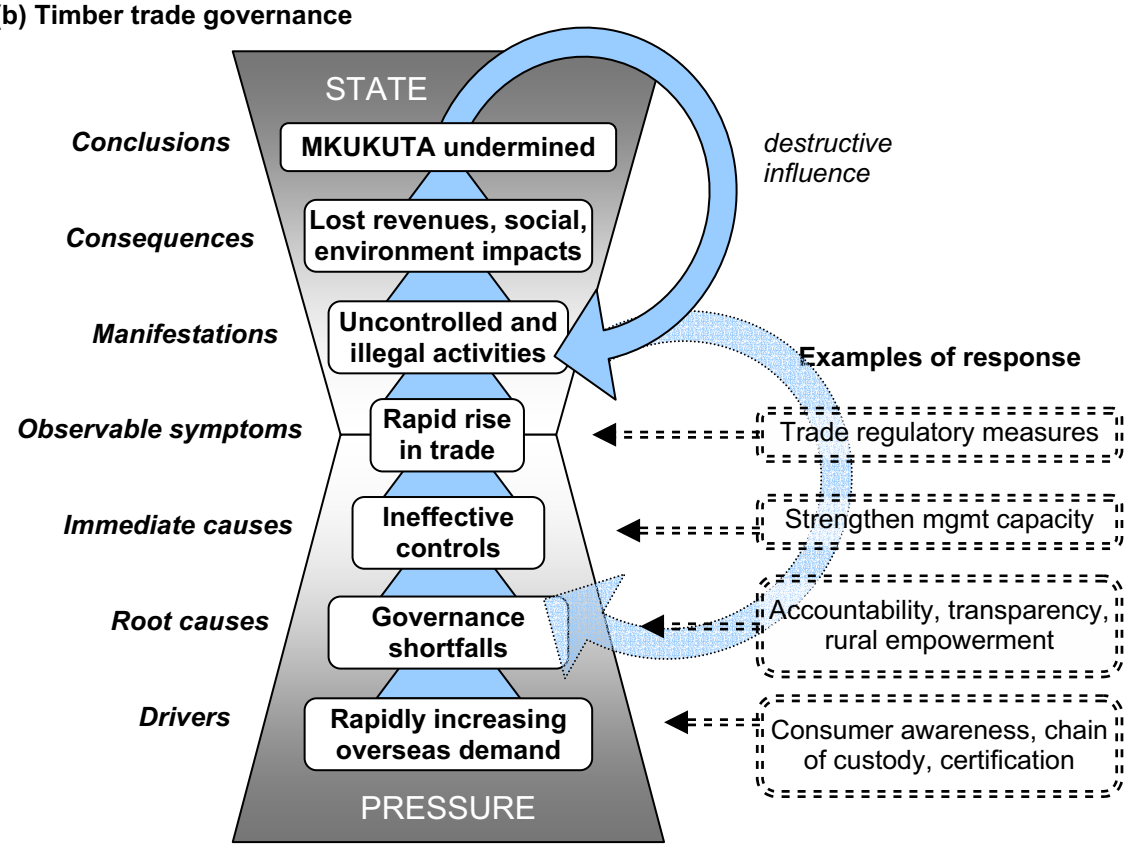
Figure 64

Planning interventions in a holistic manner: expanded Pressure-State-Response model

(a) Medical analogy



(b) Timber trade governance



8.5.4 African Forestry Law Enforcement and Governance (AFLEG)

Whilst Tanzania has yet to systematically review and implement the *Indicative List of Actions* arising from the AFLEG Ministerial Conference in 2003, Table 53 provides a cursory review for reflection. It shows that progress has been made on a number of fronts, with perhaps ***most attention now required in areas of increasing rural awareness and PFM, increasing government capacity and improving conditions of service, implementing independent forest monitoring (IFM), improved data monitoring, enhancing civil society involvement, evaluation of forest management plans and strengthening accountability mechanisms.***

Table 53

Review of selected *Indicative List of Actions* arising from the AFLEG Ministerial Conference, 2003

Indicative List of Actions	Some details of known progress to date	Future relevance
National level implementation		
Identify national actions through consultative processes	Some national actions identified although not through wide consultation to include private sector and civil society	Medium – wider private sector consultation required
Integrate those actions within national forest programmes	Revision of NFP underway and has highlighted the need for more focus on governance issues	Low – integration of FLEG appears to be underway
Seek government and stakeholder support for implementation of the Declaration	Generally low awareness by government and other stakeholders of FLEG processes	Medium – need for wider awareness of process
Legislation and policy reform		
Consolidate policies and fragmented legislation to improve clarity and promote good governance	Regulations for Forest Act (2002) finalized in 2004, and currently under early stages of revision	Low – policy and legislation adequate in main areas
Make information on existing legislation accessible in appropriate forms for stakeholders	Publication of policy, regulations and harvesting procedures, although insufficient dissemination to rural areas	High – especially to rural communities
Information		
Review status of information management systems relating to AFLEG	Internal monitoring procedures weak with poor quality data, although recent attempts to improve	High – SFM requires quality data and routine evaluation
Establish publicly accessible centralized data bases	Aside from government website, no such data is available publicly	Low – priority to improve government data first
Improve access to information through strengthening local, national and regional mechanisms	Information sharing has remained a low priority, especially in absence of accurate forest-related data	Medium – transparency of forest revenues needed
Law enforcement and monitoring		
Seek collective responsibility in FLEG at local, national, regional and international levels	Considerable debate (e.g. MNRT, private sector, media, etc.) has helped to raise profile at many levels	Low – severity of situation is well known at most levels
Improve conditions of service for field staff and of enforcement services to ensure FLEG	Ongoing central government strategy to improve working conditions	High – low motivation a strong factor undermining governance
Develop monitoring and auditing capacity for forest and legal authorities	Auditing capacity exists although audit reports state capacity gaps do exist	Medium – recommends greater priority on expenditure choices

Indicative List of Actions	Some details of known progress to date	Future relevance
Encourage independent monitoring	Government, development partners and civil society supportive of efforts; IFM feasibility study underway	Medium – IFM can strengthen government monitoring
Encourage decentralized law enforcement and empower people & local governing bodies for FLEG	Decentralised forest management already underway although FLEG approaches under PFM very challenging	Medium – first step is raising rural awareness of the 3 Rs
Capacity building		
Build capacity of government and forest services for SFM, especially FLEG	Considerable training undertaken, although country remains vastly understaffed for SFM	High – need more staff and training of police, customs
Build capacity of civil society to participate in FLEG	Very little Tanzanian civil society engagement in FLEG process to date, despite potential	High – clear potential value in engaging civil society
Forest management practices		
Develop and implement appropriate management plans for all forests	Recent inventories and management plans drawn up for forests in eleven priority districts	High – key issue is to follow implementation and evaluation
To ensure accountability and transparency in forest management	Clear gaps in accountability and transparency highlighted in recent logging scandal	High – answerability and wider government involvement
Develop participatory forest management practices to enhance FLEG	PFM approaches implemented in many sites across the country	High – need to ensure PFM not undermined by FLEG actions
Promote and support alternative livelihood initiatives for poverty alleviation in forest communities	PFM approaches and rural support programmes address livelihood initatives as a priority	Medium – important for FLEG initiatives to have partnerships
Ensure the different perspectives of men and women are taken into account	Gender issues incorporated into PFM initiatives	Low – not as high priority compared to other actions
Financing		
Review economic reforms to ensure FLEG capacity is not jeopardized and is integrated in PRSP priorities	PER of environment conducted and revised NSGRP strong on governance	Low – good commitment to deliver on MKUKUTA
Seek commitment that a proportion of the gains from improved FLEG are reinvested in the sector	Retention of funds does occur at central and local government levels but PER noted inadequate sharing	Medium – needs further dialogue at local levels
Reinforce support for AFLEG actions from development partners	Development partners generating cohesive action on forestry governance issues in general	Low – positive momentum is already apparent
Provide better incentives for good governance, SFM and value added processing	Slow implementation of market-based instruments and tools such as certification	Medium – requires a long-term plan on increasing incentives
Explore new mechanisms for securing finance for SFM, including for FLEG	Several studies undertaken	Medium – remains a priority
Markets and trade		
Develop partnership to strengthen FLEG	Few agreements between trading partners, consumer and Tanzanian enterprises	Low – other FLEG issues remain higher priority
Develop regional cooperation agreements to address cross-border trade issues	Tanzania a member of two regional economic groupings and signatory to various environmental agreements	Medium – very similar dynamics in Mozambique
Develop mechanisms to inform financial institutions on FLEG	No information available, but is an important area to explore since illegal logging has major economic implications	Medium - further exploration required

8.6 Efforts by the Ministry of Natural Recourses and Tourism to control illegal harvesting and trade in forest products

Author's note: This chapter was prepared by the Ministry of Natural Resources and Tourism following review of the report in January 2007.

8.6.1 Background

Between the year 2000 and 2004, Forestry and Beekeeping Division (FBD) went through a difficult period in terms of conservation and management of forest resources in the country. Commercial logging of coastal forests occurred mainly in Lindi, Mtwara, Coast and Morogoro regions. Pausora (*Swartzia madagascariensis*) and Pangapanga (*Millettia stuhlamannii*) were the most common valuable tree species harvested and exported as round logs from Kilwa and Rufiji districts. Although some of this logging was undertaken using licences obtained from the relevant authorities, the majority was believed to be illegal. Other products traded illegally from the forests were sawn wood, poles, charcoal and firewood. Export market demand was identified as a driving force for the illegal trade. Forests on general lands, where there is no proper management, suffered more in terms of illegal logging than Forest Reserves. The opening of Mkapa Bridge accelerated commercial logging of coastal forests in the southern regions. Increasing demand for charcoal in urban areas intensified deforestation in rural areas with serious environmental degradation. People in Dar es Salaam and elsewhere in the country continued to rely on wood fuel for their fuel needs because alternative energy sources like kerosene were much more expensive. Field patrolling as a protection measure was almost ineffective because of staff shortages and transport problems. One other main reason for the over exploitation of forest resources was the lack of management plans for most natural forests in the country. The *Forest Act No. 14 of 2002* became operational in July 2004. Ever since, a number of measures have been undertaken by FBD to address some of the problems, as described below.

8.6.2 General measures taken

The *Forest Policy* sets policy directives for sustainable use of forests in the country. The most important element of the *Forest Policy of 1998* is that it encourages participatory forest management and sets up an institutional framework for forest management in Tanzania. The *Forest Policy* was followed by the enactment of the *Forest Act* in April 2002 as an instrument for its implementation. The Act was enacted to fulfill various objectives including: promoting and enhancing the contribution of the forest sector to the sustainable development of Tanzania, and the conservation and management of natural resources for the benefit of the present and future generations. In addition, the Act is aimed at encouraging and facilitating the active participation of citizens in the sustainable planning, management, use and conservation of forest resources and ensuring ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility.

The *Forest Act* also governs licences and permits to control harvesting, transportation, sale and export of timber and timber products in the country. ***The procedure for issuing licences for harvesting and transporting forest products was recently reviewed to facilitate participation of stakeholders and promote transparency. Empowerment of villagers to manage forests through participatory forest management approaches is believed to be a way for reducing corruption and illegal trade of forest products.*** The "Tanzania Forest Conservation and Management Project" has a Participatory Forest Management (PFM) component covering among others Lindi region. Most of the forests covered by the project in this region suffered illegal logging years back. Recent field assessment results show that PFM is widely accepted by local communities across the different regions of mainland Tanzania. The system therefore serves as a means of controlling harvesting of forest resources in the country.

Licences for tree harvesting are valid for 30 days. Traders in forest products are also required to pay annual registration fees to the Ministry of Natural Resources and Tourism in addition to business licence from local authorities. Forest Product Royalty Rates are set by the Forest and Beekeeping Division of the Ministry of Natural Resources and Tourism. The rates are updated from time to time.

The National Forest Programme (NFP) was formulated as another instrument of implementing the National Forest Policy. The objectives of the NFP are:

- Sustainable supply of forest and bee services to meet the needs at the local and national levels;
- Enhanced national capacity to manage and develop the forest and beekeeping sector in a collaborative manner;
- Enabling legal and regulatory framework for the sectors in place; and
- Increase economic contribution, employment and foreign exchange earnings through sustainable forest and beekeeping based industry development and trade of forest and bee products.

The programme has four sub-programmes namely:

- *Forest Resources Conservation and Management* which aims at promoting gender balanced stakeholders participation in the management of natural and plantation forests giving priority to ecosystems conservation, catchment areas and sustainable utilization of forest resources;
- *Institutions and Human Resources Development* aiming at strengthening institutional set up, coordination of forest management, establishing sustainable forest sector funding and improvement in research, extension services and capacity building through strengthening human resources;
- *Legal and Regulatory Framework* which focuses on the development of regulatory issues including the *Forest Act*, rules, regulations and guidelines to facilitate operations of the private sector and participatory management; and
- *Forest Based Industries and Sustainable Livelihoods* which is intended to enhance forest industry development by promoting private sector investment, improving productivity and efficiency and to tap the income generation opportunities provided by non wood forest products.

8.6.3 Ban exportation of logs

The Ministry of Natural Resources and Tourism imposed a ban on the export of all types of logs since July 2004. However the Ministry encourages export of value-added products, which also creates employment in the country. ***Banning the export of logs helped among other things to create employment in forest industries, promote forest investment, improve government revenue through sale of processed forest products and control incidences of bribery.***

8.6.4 National forest inventory

Timber harvesting is prohibited in protection forests for protection of water catchment and biodiversity. Controlled harvesting is however allowed in production forest reserves and in general land (mainly in miombo woodlands). In order to bring about sustainable timber harvesting, knowledge of the growing stock is necessary. The Ministry of Natural Resources and Tourism through its Forest and Beekeeping Division has carried out forest inventories in 11 potential districts in the Eastern and Southern Highlands Zones of Tanzania. These districts are: Kilwa, Nachingwea, Liwale, Tunduru, Rufiji, Kisarawe, Kilombero, Mvomero, Ulanga, Handeni and Mpanda. Ocular estimates to determine standing tree volumes for the rest of the districts in the country were also undertaken. The inventory and ocular estimates report provided the following outputs: (i) district maps showing locations of different forests; (ii) list of forests and their areas, tree species, timber species, stocking levels, tree volumes (total and harvestable/merchantable) and general forest condition/quality. ***Therefore most districts now have harvesting plans based on forest inventories. This situation reduces the chances for cheating and corruption tendencies at the harvesting and hammering sites.***

8.6.5 Preparation of Guidelines on harvesting of forest products

In 2006, the Forest and Beekeeping Division prepared guidelines on harvesting of forest products in the country. The guidelines were disseminated to stakeholders in a series of seminars conducted throughout the country. Among other things, the guidelines directed each district to have a Forest Harvesting Committee which comprises the following members:

- District Commissioner – Chairperson;
- District Executive Director (DED) – Secretary;
- District Water Engineer – member;
- District Forest Officer – member;
- District Natural Resources Officer – member;
- Village Executive Officers of adjacent villages – members; and
- Village chairpersons of adjacent villages – members.

Some of the functions of the committee are:

- To receive and determine applications for harvesting for forest products;
- To coordinate harvesting activities within the district;
- To update harvesting plans for the district; and
- To receive quarterly reports on the harvesting activities from the District Forestry Officer.

The committee meets four times a year in its ordinary scheduled time. These functions together with other directives contained in the guidelines have been gazetted as *Government Notices No. 69 and 70*. ***The main objective of this development was to promote transparency, curb corruption and empower local communities to manage forest resources in a participatory manner.***

8.6.6 Establishment of Forest Surveillance Unit (FSU)

The objective of establishing the FSU is to control the utilization of forest products by ensuring that harvesting and transportation of the same is done in accordance with regulations and procedures laid down in *Forest Act*.

The Forest Surveillance Unit was established in 2005/2006 and crew members positioned in Dar es Salaam, Lindi and Tabora. Recently, another crew has been created and posted to Moshi. The target is to have seven crews in seven zones of country namely:

- Eastern zone covering Coast, Morogoro and Dar es Salaam;
- Western zone covering Tabora, Rukwa and Kigoma;
- Southern zone covering Mtwara, Lindi and Ruvuma;
- Central zone covering Dodoma, Manyara and Singida;
- Northern zone covering Arusha, Kilimanjaro and Tanga;
- Southern Highlands zone covering Mbeya and Iringa; and
- Lake zone covering Mwanza, Shinyanga, Kagera and Mara.

The specific duties of the FSU are as follows:

- To make sure that rules, regulations and procedures of harvesting and transporting forest produce are adhered to;
- To carry out patrols;
- To control illegal harvesting of forest products;
- To control transportation of forest products;
- To prosecute and handle cases in the court of law;
- To protect forest and bee resources;
- To collaborate with other patrols units from other sub-sectors of the Ministry in protecting illegal harvesting and transportation of forest products; and
- To liaise with both the urban and local communities in the protection and control of harvesting of forests products.

Since its inception the FSU unit has managed to intercept and apprehend large quantities of illegal forest products including timber, charcoal and poles.

8.6.7 Strengthening of checkpoints

Checkpoints (inspection points) are manned by trained forest personnel. Their duties include controlling transportation of forest products and documents accompanying the products, and enforcement of the provisions of the *Forest Act* and regulations. Every checkpoint:

- Has at least a Forest Assistant in charge who is assisted by two to four other staff;
- Has a record book in which every forest produce or wood product passing in the check point is entered, showing:-
    - Name of the owner, type of conveyance, type of product; quantity of the product, place of origin of product, the recipient of the product, time and date on which it passed the checkpoint, sizes of the forest produce, number of each size, transit pass number, Forest Division (FD) licence number, registration certificate number and owner, place of issue of the registration certificate, date the FD licence was issued, name of officer who issued the Transit pass and type of species.

Basically, FSU crews and check points staff have been strengthened in the past two years to fight illegal transportation and sale of forest products thus curbing corruption and bribery incidences at harvesting and delivery sites.

8.6.8 Modification of documents

Some documents used for harvesting forest produce have been improved by introducing "water marks". ***The marks never appear in photocopied documents. This was considered necessary to curb the problem of forgery which leads to corruption.*** The documents in question include: Application for harvesting of forest produces; Transit pass for forest produce; Certificate of Registration; and Licence to fell.

8.6.9 Introduction of scanning of forest products

In order to strengthen control of export of forest produce, the Ministry of Natural Resources and Tourism has decided to introduce the scanning of all containerized forest produce for export at the Dar es Salaam port. This aims at avoiding exportation of unauthorized forest products like logs and charcoal. The Ministry also has a special area for inspection and stuffing/packing forest produce at Kurasini International container depot. ***The inspection involves other stakeholders outside the Ministry to maintain transparency and curb bribery.***

8.6.10 Countrywide assessment of sawmills

Inventory of sawmills and other primary wood industries in Tanzania was done by the Ministry in June 2005. The objective of the study was to monitor the utilization of forest resources and control revenue collection. FBD commissioned a special team which

travelled all over the country to examine the existing sawmills. The study was aimed at getting the actual number of sawmills with their rated capacities, the quality of personnel, resource availability and the actual revenue accruing from these sawmills.

About 350 sawmills were identified; most of them were very old and outdated. In addition, the recovery rate was found to be very low leading to high wastage. The personnel were mostly given on-job training. Some sawmills did not even have sawmill installation licences.

However, this situation has now been properly addressed by *Government Notice No. 69* which requires sawmill firms to employ saw doctors, maintenance personnel and machine operators (technicians) from recognized Forest Industry Institutions. In addition, the *Government Notice* required sawmill owners to make sure that their sawmills have breakdown, re-saw and edger section to improve the recovery rate/production. ***Generally the country-wide assessment of sawmills study was a step towards controlling corruption at the processing sites.***

8.6.11 Database

On the problem of low communication skills and lack of statistics, different sources are applied for data collection. These include monthly, quarterly and annual reports, meetings, visits, etc. ***Forestry and Beekeeping Division has established a database recently where data regarding forest resources is stored and accessed. Again this was deemed necessary to promote transparency and curb bribery.***

8.6.12 Improvement of revenue collection

The main objective of this undertaking is to formulate and implement a sound forest revenue collection strategy, with the ultimate goal of ensuring the financial stability of the Forestry and Beekeeping Division. Twenty-five districts and two regions, namely Dar es Salaam and Mwanza, have been selected for this exercise which is funded by the World Bank.

The Ministry has also formed zonal inspection teams to inspect and monitor revenue collection and conservation of forests. ***Revenue inspection is done to check documents used in the trade of forest products***. This activity is conducted twice a year covering the seven administrative zones mentioned earlier on.

9 INFLUENCE OF TIMBER TRADE ON NATIONAL DEVELOPMENT

9.1 Overview of NSGRP/MKUKUTA linkages

The NSGRP states the following forestry-related challenges with respect to current poverty status in Tanzania:

i. "*The present use of natural resources is unsustainable (e.g. wanton tree-felling ...). This precipitates poverty by eroding sources of livelihoods and destroying environment.*" (p6)

ii. *"There has not been adequate encouragement of community participation in identifying, planning and implementing steps to protect natural resources and environment or effective enforcement of existing regulations and by-laws."* (p6)

iii. *"Barriers that hinder communities to access and benefit from natural resources need to be addressed."* (p7)

iv. *"Effective energy supply falls short of the required levels and quality (considering environmental effects of certain sources, such as firewood)".* (p8)

v. *"In rural areas there are no alternative energy sources that would reduce the ... unsustainable exploitation of forestry resources."* (p9)

vi. *"Opportunities for expanding and diversifying rural incomes from natural resources are not realised in part due to bureaucratic and legal hurdles."* (p9)

vii. *"On- and off-farm earnings need support from both a strong agriculture sector and other rural sectors including forestry, wildlife, fisheries and tourism."* (p10)

viii. *"Under-employment occurs in all areas ... worse in rural than urban areas ... has contributed to the unsustainable exploitation of natural resources."* (p10)

Indeed, ***forest and natural resource management issues are relevant to all three major clusters of poverty reduction outcomes*** in the NSGRP[93] (Table 54). The following two chapters outline some of the main contributions and threats posed by timber trade to the the first and third clusters of poverty reduction outcomes.

Table 54

Summary of linkages between natural resource management and NGSRP/MKUKUTA

NSGRP cluster	Relevance to natural resources
Growth of the economy and reduction of income poverty	Improvement in access and ability to use productive assets
Improvement of quality of life and social well-being	Environmental protection and sustainable utilization
Governance and accountability	Transparent and accountable use of resources

[93] Timber trade, in the environmental arena, is particularly important in the context of NSGRP since it overlaps with cluster strategies that address more than one NGRSP outcome, as well being a mainstreaming cross-cutting issue.

9.2 Growth of the economy and reduction of income poverty

9.2.1 Relevance of forestry to NSGRP cluster #1

The forestry sector has most direct relevance to two of the six goals that contribute towards the broad outcome "*broad based and equitable growth is achieved and sustained*" (Table 55).

Table 55

Relevance of forestry sector to NSGRP cluster #1

Goal	Operational target
#2: Promoting *sustainable and broad-based* growth	#9 Reduced negative impacts on environment and peoples' livelihoods
	#10 Reduced land degradation and loss of biodiversity
#4: Reducing *income poverty* of both men and women in rural areas	#6 Increased contributions from wildlife, forestry, and fisheries, to incomes of rural communities

Source: VPO (2005).

The ***National Forest Policy (1998)*** recognizes that *"trade in wood and non-wood forest products offer considerable potential for increased economic development through income and employment generation as well as export earnings"*, whilst also acknowledging *"unregulated trade can instigate uncontrolled exploitation and has the potential of accelerating forest destruction and degradation through loss of biodiversity"*. Two of the four National Forest Policy (1998) objectives are particularly relevant to this cluster:

(i) *"Ensured **sustainable supply of forest products and services** by maintaining sufficient forest area under effective management"*; and

(ii) "*Increased **employment and foreign exchange earnings** through sustainable forest-based industrial development and trade"*.

Further linkages can be made with two of the four ***National Forest Programme (2000-2010)*** development programme objectives:

(i) *"Sustainable supply of forest products and services ensured to meet the needs at local and national levels"*; and

(ii) *"Increased economic contribution, employment and foreign exchange earnings through sustainable forest-based industry development and trade of forest products"*.

9.2.2 Contributions of logging and timber trade to NSGRP cluster #1

Growth in trade-related aspects of the forestry sector, especially in the past five years, has ensured a rise in government income at all levels, increased foreign exchange and levels of investment (Table 56). Importantly, this growth – stimulated largely by export-driven markets – has also increased the incomes of many rural communities living adjacent to forested areas.

Table 56

Major contributions of logging and timber trade towards NSGRP cluster #1

Goal	Contributions of logging and timber trade
#2: Promoting *sustainable and broad-based* growth	Growth in central government forestry revenues
	Contributions towards local government finances
	Increase in private investment
#4: Reducing *income poverty* of both men and women in rural areas	Increased rural incomes from timber trade
	Indirect improvements to market access for rural poor

Growth in central government forestry revenues

Revenue (royalties) from timber harvesting and processing forms the greatest direct financial benefit from forests to central government. For example, forestry royalties contributed 90% and 86% of the total collections from forest products during 2002/2003 and 2003/2004 respectively (TFCMP, 2005).

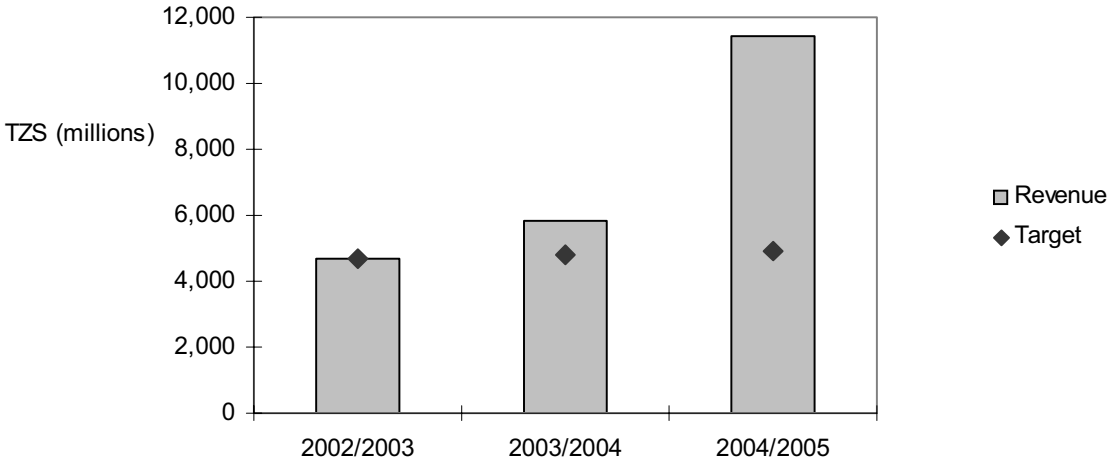
Forestry revenue collection to central government has increased markedly since economic reforms started in the mid-1980s, rising from just TZS 77 million (USD 2.2 million) in 1987/1988 to TZS 11.4 billion (USD 10.8 million) in 2004/2005. Moreover, forest-based revenue has continued to increase at a rapid rate in recent times. ***In the three years from 2002/2003 to 2004/2005, FBD revenue collection from the sale of forest products almost doubled*** (a combination of revenue both from natural forest harvesting and teak auctions) (Figure 65).

Revenue from forest product exports has also increased, from USD 2119.04 in 2000/2001 to USD 11 637.34 in 2003/2004, although revenues dropped in 2004/2005 due to the export ban from 1st July 2004 (MNRT, 2005). Forestry export duties contributed two and three per cent of the total collections from forest products during 2002/2003 and 2003/2004 respectively (TFCMP, 2005).

A closer look at key districts[94] in southern Tanzania reveals a similar picture to the national trend of increasing forestry incomes. Revenues from Rufiji District increased from TZS 87.3 million (USD 96 500) in 2001/2002 to TZS 282.7 million (USD 268 500) in 2003/2004, whilst Kilwa District forestry revenues increased almost four-fold from TZS 65.5 million (USD 79 500) in 2000/2001 to TZS 196.6 million (USD 186 700) in 2003/2004.

Figure 65

Forest revenue to central government, 2002/2003 – 2004/2005



Source: Forestry and Beekeeping Division, 2006; Mkeya, 2004.

Contributions towards local government finances

Two sources of district and municipal council revenue[95] are relevant to forest products, "regulatory fees/licences/permits" (e.g. forest products licence fee) and "fines and penalties" (Mramba, 2003). The degree of direct financial benefits thus varies amongst districts, depending on the number of local government forest reserves, levels of timber harvesting and the efficiency of revenue collection[96].

An audit of FBD revenue collection conducted in 2005 sampled ten district council budgets, highlighting the importance of forest product revenue (TFCMP, 2005). For example, the contribution of forest product revenue to Nachingwea District Council

[94] Rufiji and Kilwa Districts are the largest contributors of central government forest revenue from south-east Tanzania. During 2001/2002, their combined revenue collection target was equivalent to almost three-quarters of the total revenue estimate from this part of the country (TZS 275 million, equivalent to USD 303 900).

[95] Other district and municipal council revenues include product/sales taxes, asset/property taxes, service charges, sales/rent of council assets/products, and taxes shared with central government.

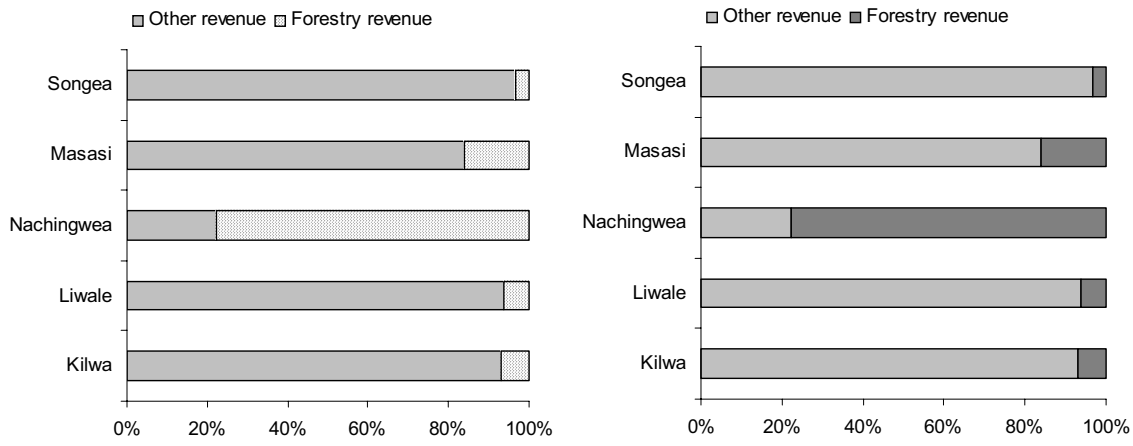
[96] In addition, allocation of retention funds to districts provides additional financial resources; a total of TZS 90 million (USD 85 470) was given to districts in 2003/2004 (TFCMP, 2005)

budget in 2002/2003 and 2003/2004 was 47% and 78% respectively (Figure 66). Some 60% of locally-raised income in Rufiji District during 2000/2001 came from forests (John *et al.*, 2003).

Figure 66

Forest revenue contribution to selected LGA budgets in southern Tanzania

(a) 2002/2003 **(b) 2003/2004**



Source: TFCMP (2005).

Increase in private investment

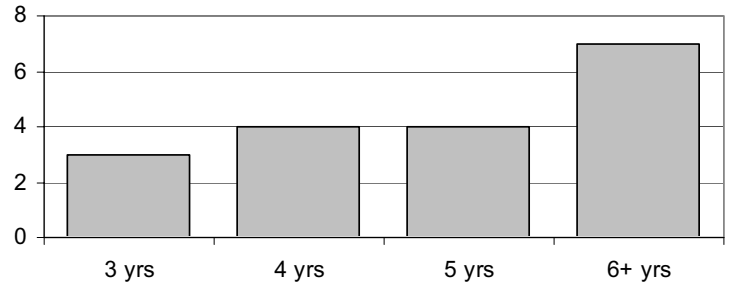
Whilst precise levels of investment for individual companies were not collected during this study, it is clear that several timber companies have initiated new operations in recent years, involving both processing and exports. For example, seven out of 18 sampled timber export companies in Dar es Salaam started their operations within the past four years (Figure 67). In southern Tanzania, seven of the 15 permanent hardwood sawmills present in late 2004 had started their operations since 2002 (Milledge *et al.*, 2005a). ***The most tangible economic benefits derived from private investment in the timber sector include employment and government revenues***. Whilst unconfirmed, WAWAMATA claimed two million people in Tanzania earn their living from logging.

Credit: Simon Milledge/TRAFFIC

Millettia stuhlmannii billets prepared for export

Figure 67

Number of years of operation in Tanzania of timber export companies, 2006



Increased rural incomes from timber trade

Timber trade provides an opportunity for ***rural income in the form of village tax, employment, casual labour, timber sales, and revenue from local concession agreements***. The majority of financial benefits to rural communities derive from casual labour, especially in the felling, crosscutting and loading of logs on to trucks (Table 57).

Table 57

Average rates (TZS) for different stages of timber trade chain

Stage of timber trade chain	Sawn wood	Round wood
Logger (also sizer or pit sawer)	TZS 1000 - 1500/plank	TZS 2000 - 3000/log
Loading onto vehicle in forest for transport to village		TZS 1000/log
Middleman in village	TZS 2000 - 2500/plank	TZS 40 000/mth
Loading onto trucks for transport from village	TZS 5000 - 10 000/7t truck	TZS 1000 - 1500/log
Village tax for timber products	TZS 50 - 200/plank	TZS 200 - 500/log
Unloading at urban center		TZS 20 000/truck

Source: Interviews in Rufiji, Kilwa, Nachingwea and Masasi Districts (Milledge *et al.*, 2005a).

Note: 7t truck carries ≈ 400 planks ≈ 20 m^3.

Timber trade can provide a significant contribution towards income at village level. At least 16% of households from villages located near forests benefitted from logging and timber trade, increasing up to 60% during peak logging activity. The Mtanza-Msona (Rufiji District) village government and individual members of the community collected an estimated total of almost TZS 20 million (USD 19 000) during 2003, when trade in round wood was at its peak of 500 logs per month. This included TZS 12 million (USD 11 400) received by loggers (based on an average price of TZS 2000 per log, equivalent to USD 1.90), TZS 6 million (USD 5700) received by villagers for loading logs onto trucks (based on TZS 1000 charged for each log, equivalent to USD 0.95), and 1.8 million as village levy (charged at TZS 300 per log, equivalent to USD 0.28). In

another village near Kibiti, Rufiji District, loggers reported a monthly income of around TZS 600 000 (USD 570) to be shared amongst ten people.

In this way, ***timber trade can act as a catalyst to build capital at local levels***. Table 58 gives some examples of how middlemen throughout southern Tanzania have used their incomes generated primarily from timber trade to build other businesses and assets. Conversely, it is even possible that in some areas, high levels of illegal trade may have fostered more positive, short-term economic benefits at the local level than legal trade (e.g. earnings from felling trees); indeed, most rural stakeholders in southern Tanzania felt that redistribution of government-collected timber revenues to village level was insignificant in terms of boosting livelihoods.

Table 58

Examples of wealth reinvested from timber trade by timber middlemen at district level

Location	Examples of timber traders' current assets
Mtwara	Hotel
Masasi	Hospital, guest house, vehicle
Liwale	Two guest houses, shop, house
Kilwa	Buses, houses in Dar, UK flower farm, sawmill DSM, many vehicles
Lindi	Three guest houses, two trucks, two shops
Masasi	Guest houses, cars, building shop
Kilwa	Four bars, house, hotel, two lorries

Indirect improvements to market access for rural poor

In addition to income generation, ***logging and timber trade has also provided several non-financial benefits to rural communities***. Perhaps the most ***important social services provided by timber traders in remote, rural areas were transport and market access***. For example, villagers from western parts of Kilwa District claimed that prior to the rapid increase in round wood trade witnessed from 2003 onwards, public transport was seasonal and, in the absence of public transport, limited to opportunistic lifts with private vehicles passing by. In contrast, several logging trucks would stop daily at their village during 2003 and early 2004 to collect logs, providing cheap and regular transport to distant towns sometimes as far away as Dar es Salaam. Not only did the regular transport provide a means to access markets for selling local goods further afield, it also enabled traders to buy goods to sell back in their home villages. Further, the large increase in people passing through their villages provided numerous, local business opportunities in addition to employment and income from timber trade (e.g. logging and packing), especially sales of food, beverages, disposable items and accommodation.

9.2.3 Threats posed by logging and timber trade to NSGRP cluster #1

At the same time, the likelihood of timber trade bringing about broad-based and equitable growth is threatened by a number of important issues (Table 59).

Table 59

Major threats to NSGRP cluster #1 posed by logging and timber trade

Goal	Threats posed by logging and timber trade
#2: Promoting *sustainable* and *broad-based* growth	Unrealized revenues a threat to sustainable and broad-based growth
	Undervaluation of GDP contributions a threat to government investment
	Unsustainable harvesting a threat to sustainable and broad-based growth
	Perverse financial incentives undermine long-term growth
	Deficiencies in financial capacity a threat to growth of the sector
#4: Reducing *income poverty* of both men and women in rural areas	'Boom-bust' cycles a threat to long-term reductions in rural income poverty
	Lack of SFM financial incentives a threat to reductions in rural income poverty

Unrealized revenues a threat to sustainable and broad-based growth

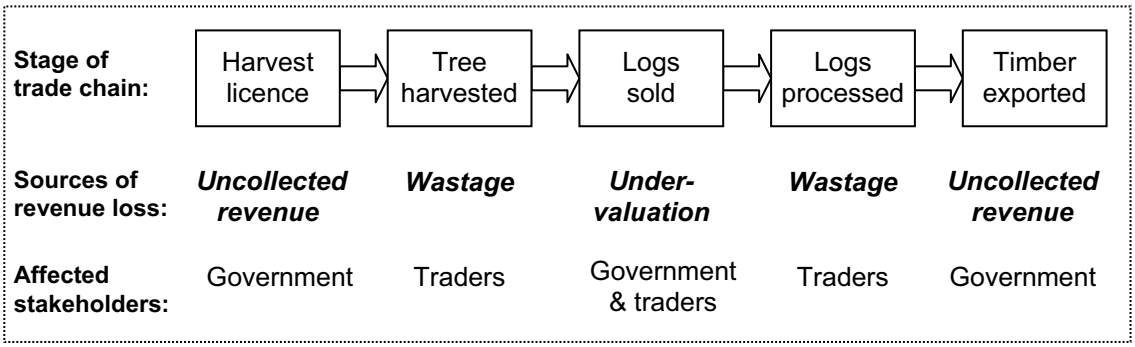
Whilst timber-based revenues contribute a large proportion of some LGA budgets (see above), ***current revenue is insufficient to finance both development and protective services provided by FBD***. Disregarding revenue collected and retained at source, FBD revenue collected during 2002/2003 – 2003/2004 did not cover its budget (World Bank, 2005b). Simply realising more of the potential revenue would go a long way to strengthening growth.

Some major sources of revenue loss along the timber trade chain are given in Figure 68, together with the main stakeholders affected. Unrealised revenues from logging basically fall into four broad categories, and may be further split according to whether or not they are *accidental* or *deliberate* in nature (Table 60). Firstly, ***potential revenues are lost due to wasteful practices, which frequently results in significant quantities of timber left in the forests during harvesting***. For example, during high intensity logging in southern Tanzania during late 2003 and early 2004, many non-commercially viable trees were felled by inexperienced loggers[97] (accidental). The degree of accidental wastage was reportedly *lower* prior to steps taken to ensure greater community involvement in harvesting.

[97] Unviable commercial trees included those of the wrong species (e.g. low value or not commercially attractive), undersize (e.g. less than legal minimum harvestable sizes) or quality (e.g. imperfect structure). Village harvesters lacking the necessary harvesting skills commonly incurred losses following selective sorting of the logs at landing sites by the traders.

Figure 68

Diagram illustrating main sources of revenue loss along the timber trade chain



On a much larger scale, the branches were discarded following the felling of almost every tree destined for export from Rufiji and Kilwa Districts during the same period, a practice which represented around 30% wastage on every tree. ***Further wastage occurred at sawmills***. The 2005 FBD evaluation of sawmills and other primary wood industries calculated 20-43% recovery rates, which was comparable to earlier figures of 30-40% for miombo woodlands sawmills (Moyo *et al.*, 1986; MNRT, 2005b).

Table 60

Examples of unrealised revenues from logging in Tanzania

Category	Accidental	Deliberate	Estimated revenue loss
Wasteful practices	Harvesting non-commercially viable trees	Discarding branches after harvesting	10-30%
	Sawmill recovery rates		20-43%
Under-collection (or under-payment)	Insufficient management capacity	Illegal harvesting and trade practices	72-96%
		Illegal or unreported exports	Up to 90%
Under-valuation	Royalties not reflecting market rates	Forceful underpayments to rural harvesters	Up to 75%

Secondly, ***under-collection of royalties (tax compliance) provided another source of revenue loss at all levels of government***[98] (Table 60). Under-collection has been identified as a serious challenge to FBD with current revenues insufficient for the needs of sector (Mbonde, 2005; *National Forest Programme*; SAVCOR, 2005). It can arise from both *accidental* grounds (e.g. misclassification as a result of unskilled checkpoint staff) and *deliberate* motives (e.g. illegal logging, unlicenced trading, cheating in classification and evasion of checkpoints). Moreover, traders' efforts to ensure

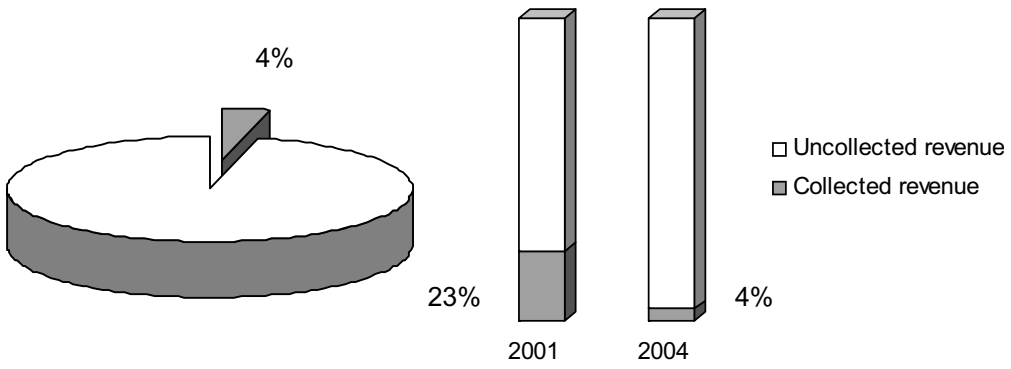
[98] Numerous tax loopholes deny the government large revenue (Mramba, 2003).

deliberate underpayment may also involve the collusion with other stakeholders (including public officials, i.e. corruption).

During the peak of timber trade activity in southern Tanzania up to mid-2004, collected revenue represented barely four per cent of the timber harvested and transported (chapter 8.2.2). This represented a ***downward trend over a three-year period*** (Figure 69), as well as being ***notably lower than estimates in other parts of the country*** (Kobb, 1999; *National Forest Programme*; SAVCOR, 2005).

Figure 69

Timber revenue collection (shaded) in relation to actual trade in southern Tanzania



The deliberate under-payment of forest product royalties is clearly the greatest threat with respect to achieving sustainable and broad-based growth, since it undermines efforts to create self-financing institutions, denies incomes to numerous stakeholders, and further fosters a culture of illicit forestry behaviour. Data presented in chapter 8.2.2 illustrated how under-collection would have had serious impacts on both local and central government revenues. Most notably, some district councils would have been able to easily exceed their total annual budgets through more efficient forest product revenue collection. It is also possible that FBD lost some USD 58 million annually due to the under-collection of indigenous forest timber product royalties at district level nationwide. Further financial losses are evident at the point of export, with Chinese import statistics an order of magnitude greater than Tanzania export statistics.

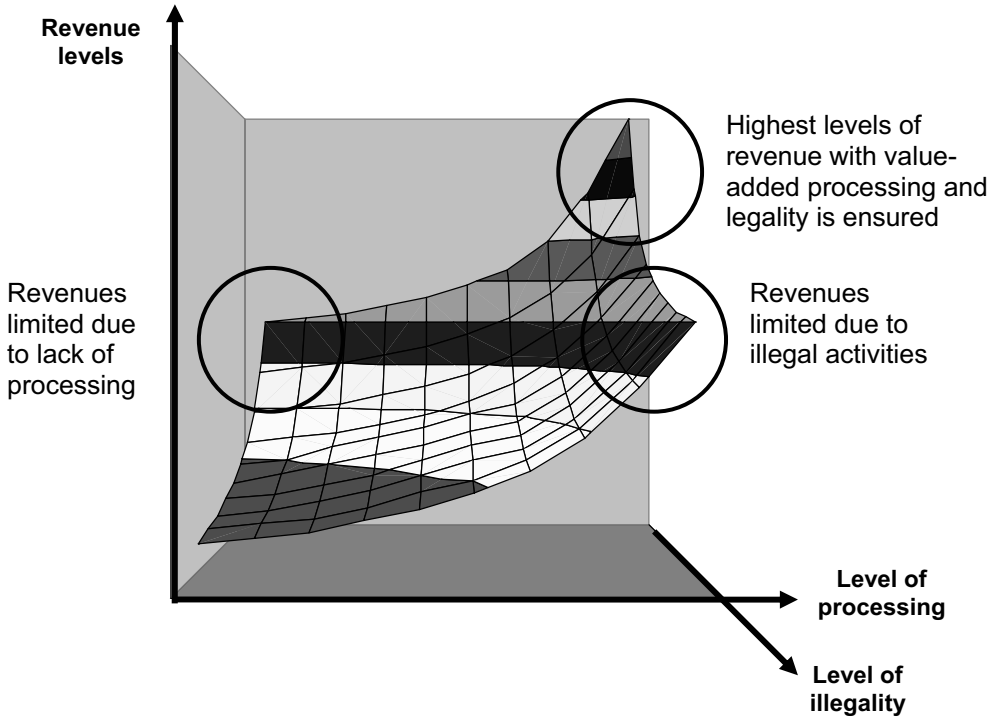
A third category of unrealised revenue arises though under-valuation, whereby forest products are incorrectly priced or valued (Table 60). ***Under-valuation in Tanzania normally happens as a result of not using market-based scales and values for setting forestry royalties***. A recent World Bank review emphasized the importance of "*correct pricing of traded economic goods and services that rely on forestry resources and services*" (World Bank, 2005).

However, ***ignorance regarding the true value of forest products at rural levels also allowed price manipulation by traders, thus contributing towards under-valuation of the products***. It is arguable how much timber trade has contributed towards reducing poverty in some rural areas, with harvesters receiving less than USD 4.00 per m^3. A lack of standardization and coordination between villages has led to diverse agreements between villages and buyers, as well as different village taxes specified in by-laws. This has resulted in widely varying levels of financial benefit. For example, taxes on timber products varied by up to 150% between villages, even though they were dealing in the same selection of hardwoods from within the same district.

In addition, the ***lack of value-adding to forest products on a large scale also resulted in unrealised revenues***, compounded by low levels of legality (Figure 70). The diversification of the *"export basket"* by stimulating value-added activities is included as an important area to focus on with respect to stimulating growth and reduction of income poverty in the NSGRP (VPO, 2005). A review conducted by the Economic and Social Research Foundation of East Africa's role in global trade also recommended greater processing of primary products to maximise the benefits from trade (Mkenda, 2002).

Figure 70

Relationship between timber-related revenues, legality and degree of processing



With respect to timber, a review of the world hardwood market at the Third United Nations Conference on the Least Developed Countries (LDCs) further concluded that the challenge for LDCs is to move into value-added wood products since most of LDC

exports are in unprocessed logs, fuel wood and sawn wood where the market has been stagnant (ITC, 2001). For example, the price of hardwood (*Pericopsis angolensis, Millettia stuhlmannii*) parquet flooring in Dar es Salaam was around USD 20.00 per square metre, yet exporters resisted investing in processing facilities for veneer, flooring, furniture and other high-value products. The majority of timber originating from southern Tanzania was exported as round wood or wet-off-saw lumber, with large losses of potential revenue (Table 61). The promotion of value-addition schemes can also increase the contributions from forestry to incomes of rural communities.

Another category of unrealised revenue, not included in discussion here, is revenue *not realised at source*. This particularly applies to villages which hold the potential to retain 100% of timber revenues if PFM arrangements were finalised.

Credit: Simon Milledge/TRAFFIC

Domestic use of offcuts

Table 61

Value chain for hardwood lumber and products

Product level	Value (USD/m^3 log intake)
Standing timber	18
At roadside	25
Wet-off-saw lumber	200
Dried lumber	450
Flooring	920
Veneer (1st grade)	1500

Source: LHA (2005).

Undervaluation of GDP contributions a threat to government investment

Traditionally, a focus on GDP contribution has been used to help justify investment by government and development partners in specific sectors. In this way, undervaluation of the forestry sector's contribution to GDP may partly explain the relatively low commitments to the forestry sector shown by central and local governments[99]. It has

[99] A value of USD 175 million has been attributed to the water, hydroelectric power and non-timber forest products generated by the Eastern Arc Mountains, whilst less than 0.3% of this value is reinvested by the Government in their management (Pfliegner *et al.*, 2005). Estimates of the total value of products and services provided by the Eastern Arc Mountains are as high as USD 621.4 million.

been argued that a more accurate valuation of forestry sector would help justify greater investment (World Bank, 2005b).

Official documentation estimates the contribution of the forestry sector to GDP at 2-3%, although there are three main reasons why it is considerably higher. Firstly, ***recorded revenue from the trade in forest products does not capture the large-scale illegal trade*** (which may exceed the true value of traded forest products by a factor of up to twenty-five fold, see above). Secondly, ***many ecosystem functions and services linked to forests lack true market values***[100], and are therefore not captured by national accounting mechanisms. Costs of forest degradation and effects on the national economy are also often overlooked[101]. Similarly, the ***value of forests in underpinning other aspects of NSGRP is not captured in a fiscal manner*** (e.g. ecosystem health reducing vulnerability of the poor, cluster #2, or linkages between forestry governance and rural governance, cluster #3). The 2004 Public Expenditure Review was unable to capture the Net Domestic Product of the environment due to insufficient data (VPO, 2004).

Unsustainable harvesting a threat to sustainable and broad-based growth

The importance of *sustainable yield* basis of management for sustainable growth in the forestry sector was stressed in a 2005 World Bank study of growth and environment links (World Bank, 2005b). Unfortunately, ***irrefutable evidence shows serious forest degradation in southern Tanzania***, including the 2005 FBD inventories that concluded most forests in Liwale and Tunduru Districts *"are degraded"* whilst those in Rufiji, Kilwa and Nachingwea Districts *"are heavily degraded."* Independent forest surveys matched FBD inventory results, demonstrating a decline in forest status moving southwards in line with relative harvest pressures.

Other evidence of unsustainable timber trade was evident from changes in species composition, harvest areas and timber product dimensions over time. Even villages that have a long history of investment in JFM/VFR initiatives have witnessed unsustainable losses of their timber resources in a very short space of time, with minimal livelihood benefits. Further, management plans drawn up during these initiatives are now undermined by the decline in resource status.

Lastly, a quick comparison of harvest levels in Rufiji and Kilwa Districts during 2003 and 2004 – a period of time when timber trade targeting the most valuable hardwoods

[100] For example, maintaining ecological cycles and micro-climates, soil erosion control, nutrient cycling, soil fertility, carbon sequestration, water catchment and biodiversity support functions.

[101] As an example, the costs of soil loss due to erosion have been estimated at over USD 244 million per annum (Mariki *et al.,* 2003).

peaked – showed how harvesting at the same intensity would have depleted supplies in less than 20 years[102] (Table 62).

Table 62

Predictions of timber harvest outlook in Rufiji and Kilwa Districts

Total annual volume of timber actually harvested and transported [α]	Annual volume harvested including 30% wastage (branches left) [β]	Total harvestable timber recorded during FBD inventories [γ]	Estimated harvestable Class I and II timber [δ]	Theoretical number of years to harvest all harvestable Class I/II trees [ε]
151 008 m^3	**215 726 m^3**	9 921 087 m^3	**4 166 857 m^3**	17

Sources: Field work; Malimbwi *et al.* (2005a,b,c,d,e).

Notes: [α] Derived from two-month field observations and extrapolation during 2003/2004 (see chapter 6.1.2).

[β] Wastage during felling estimated to range 10-30% (see above).

[γ] Official FBD forest inventories conducted in 2005 (see chapter 5.3.2 and Annex 4).

[δ] Extrapolated from figure of 42% total harvestable timber in Rufiji District consisting of class I and II species.

[ε] Harvestable volume of class I and II species divided by total annual volume harvested.

Perverse financial incentives undermine long-term growth

In addition to revenue growth, the forestry sector has continued to surpass projected income targets (Figure 65). This trend has been regarded as the norm since the mid-1990s, a direct result of the fact that *minimum* annual revenue targets were traditionally set instead of *upper* limits based on maximum yield (as required for professional forestry standards).

An audit of revenue performance in 25 sample districts (plus FBD headquarters) conducted by MNRT in 2005 demonstrated that ***forestry revenue collections in southern Tanzania frequently exceeded projected targets*** (Figure 71). In fact, collected revenue did not exceed projected targets in any other sampled district nationwide during 2003/2004 (TFCMP, 2005).

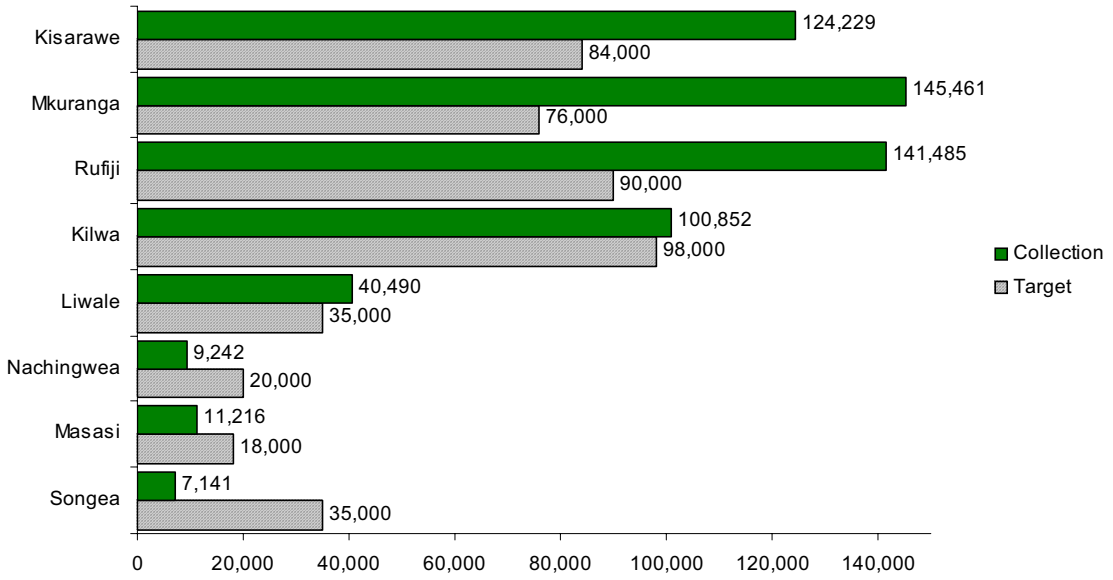
It was clear from increasing evidence of unsustainable harvest levels that ***any policy which does not set upper limits could damage long-term prospects of sustainable growth by degrading the forest resource.*** [103]

[102] This approximate calculation does not account for tree growth and regeneration.

[103] On the contrary, setting targets that are actively encouraged through bonus schemes creates perverse incentives driving very high harvesting levels For example, total forest-based revenues from Mtwara Region increased from TZS 16 million (USD 19 400) in 2000/2001 to over TZS 41 million (USD 42 000) in 2002/2003. Actual revenue was almost double the approved estimate (central government revenue) during 2002/2003.

Figure 71

Revenue collection performance from southern Tanzania, 2003/2004 (TZS 000s)

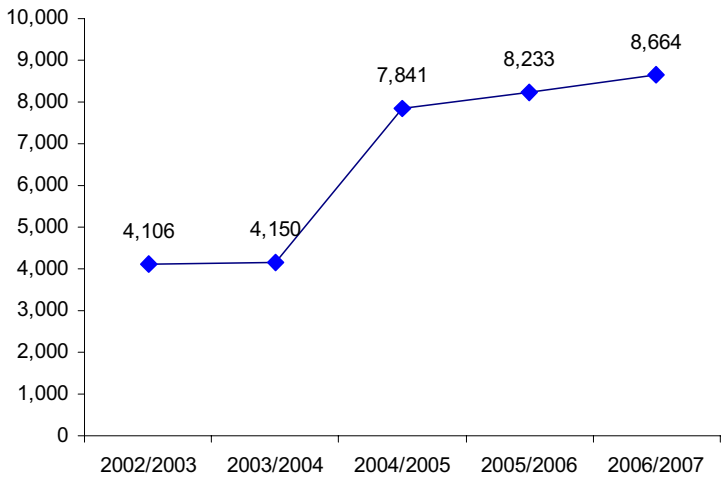


Source: TFCMP (2005).

In light of further increases in projected revenue collection estimates shown in Figure 72, it is important for FBD to ensure that this revenue increase is not secured through proportional growth in harvesting, but instead through improved revenue collection. In other words, ***additional capacity or measures to improve compliance and revenue collection are required to help ensure sustainable growth, greater financial security and better development of the resource***.

Figure 72

FBD forestry royalty revenue collection estimates, 2002/2003 – 2006/2007 (TZS 000s)



Source: TFCMP (2005).

Further, it was reported that since some forestry income accrued to LGAs represented completely discretionary funds in terms of their future expenditure (unlike most central government grants to Districts), this may raise their attractiveness to LGAs as a perverse incentive driving unsustainable logging.

Deficiencies in financial capacity limiting growth of the sector

Analysis of the reports of the Controller and Auditor-General on Local Authority accounts between 2000 and 2003 provided an assessment of questionable revenue and expenditure records (REPOA website). For the entire country, the proportion of *"adverse"* assessments decreased from 65% of LGAs in 2000 to 23% in 2003, whilst *"clean"* opinions increased from 14% in 2000 to 33%. However, the reverse trend was apparent in southern Tanzania (Figure 73) with not only ***most LGAs given an "adverse" opinion*** (seven out of eleven in 2003), but not a single LGAs has been assessed as *"clean"* since 2000.

Figure 73

Opinion of revenue and expenditure records, 2000-2003

Local Authority	2000	2001	2002	2003
Kilwa	2	1	2	2
Lindi DC	2	2	1	1
Lindi TC	2	1	2	1
Liwale	1	2	1	2
Nachingwea	1	1	2	1
Ruangwa	2	1	2	1
Masasi	1	1	2	1
Mtwara DC	3	2	2	1
Mtwara TC	2	1	2	0
Newala	1	1	2	1
Rufiji	1	1	2	2

0	No opinion
1	Adverse
2	Qualified
3	Clean

Source: Reports of the Controller and Auditor-General on Local Authority Accounts.

Focussed studies of financial management in the forestry sector have also revealed a number of issues both within FBD and at local district council level. For example, a recent audit of forestry revenue collection highlighted irregular FBD internal auditing practices (with only eight stations covered in a 12-month period), the absence of District Council internal auditing, the irregular monitoring by district and HQ staff, and poorly maintained documents and records as key issues to be addressed (TFCMP, 2005).

FBD has also been noted as having a poor capacity to absorb funding, to manage multiple development projects and to provide financial analysis competently. Together with the lack of coordination amongst development partners, these issues have led to the ongoing development of a sector-wide approach (SWAp) for the forest sector (SAVCOR, 2005). At district level, it was noted that approved local budgets were frequently much lower than requested budgets, whilst disbursements were sometimes lower. In addition, under-spending of donor funding was common.

In summary, ***without addressing these critical financial management issues, investments in the forestry sector will remain somewhat hampered, thus affecting sustained sectoral growth***.

'Boom-bust' cycles a threat to long-term reductions in rural income poverty

Whilst large, short-term economic benefits have been accrued to many rural communities – the true forest custodians in much of southern Tanzania – ***the majority of villages (unknowingly) lost considerable revenue as a result of widespread under-pricing practices***. For example, it was normal for village harvesters to receive just USD 2.00 per m^3 (TZS 2 000 per eight foot log estimated at 0.6 m^3 total volume) for logs that may have taken some 60 - 80 years to grow and sold at prices many factors higher (e.g. USD 200-350 per m^3 of round wood on international market from Tanzania, and even higher for parquet flooring produced in overseas markets). Local communities, the apparent custodians of the largest areas of forest that exist on general land (*National Forest Policy, 1998*), were largely unaware or disenfranchised of the true value of the resources under their jurisdiction.

Credit: Simon Milledge/TRAFFIC

Logging road increasing accessibility to rural areas

In reality, it was increasingly common for traders to make fixed offers of less than USD 0.50 for a log during 2004, irrespective of the value (e.g. size, species or quality). This represented just one-quarter of the average price at that time (which was already under-priced as described above). Nevertheless, many villagers continued to sell at such low prices, due to both ignorance of true values and poverty-related desperation.

Of greater concern than undervaluation was the apparent lack of sustainable micro-enterprises two years after the timber trade boom, even in villages which made large, short-term revenues and lacked the kind of constraints affecting remote areas, such as market access. Micro-enterprises established in many villages in southern Tanzania during lucrative periods of timber trade have either tended to cater for the same timber

buyers in transit, or the newly-acquired disposable income of local villagers (mostly young men). Such micro-enterprises have included small hotels, restaurants, bars and shops – all commercial ventures that are highly susceptible to fluctuating local economies. Indeed, the sporadic nature of harvest restrictions has undoubtedly contributed to financial uncertainty at the rural level, leading to the proliferation of 'boom-bust' local economies. Of concern was the apparent perception held by many rural communities that this level of economic instability is to be expected; a perception that persists perhaps due to the lack of other investment and savings opportunities, as well as low business acumen in general.

Lack of SFM financial incentives a threat to reductions in rural income poverty

According to the World Bank (2005b), the main reasons reducing financial incentives for sustainable forest management included a lack of clear ownership, tenure and user rights. Milledge *et al.* (2005a) reported the lack of awareness regarding the true value of the resource, and lack of incentives to manage and control harvesting, as important issues to address at rural levels in southern Tanzania.

Amongst the critical limiting factors reducing incentives for local involvement in SFM are the current administrative and technical requirements of PFM arrangements, which can be costly[104], take considerable time, require specialised technical expertise, and involve extensive bureaucracy. All of these factors tended to work against rural people becoming actively involved. Another important factor in southern Tanzania has been the conflicting economic interests at district and village levels, with district government authorities sometimes showing reluctance to empower villages fully to retain 100% of forest revenue as this would reduce district level revenues accordingly.

Credit: Antje Ahrends

[104] In Tanzania, it costs an estimated USD 50 000 - 100 000 to complete the necessary PFM arrangements over four years (DPG, 2006). This may be compared to USD 20 000 to start up PFM in Bolivia, with annual recurrent costs at USD 8000 (Colchester *et al*., 2006).

9.3 Governance and accountability

9.3.1 Relevance of forestry to NSGRP cluster #3 – governance and accountability

Issues of governance and corruption raised during nationwide stakeholder consultations in the preparation of the NSGRP included *"red tape, harassment by tax collectors and town/city officials, corruption, violent crime, un-enforceable contracts, weak courts, bad norms or customs, perverse external influence on values, 'unfulfilled promises' made by leaders or representatives, nepotism, and favouritism in giving micro-credit services"* (VPO, 2005).

Timber trade has most direct relevance to two of the four broad outcomes under this cluster – *"good governance and the rule of law are ensured"* and *"leaders and public servants are accountable to the people"*, and more specifically to three of the seven goals (Table 63). Interestingly, corruption and governance were *not* mentioned as key issues in the *National Forest Programme*, neither during the consultative process nor explicitly included in the NFP matrix (FBD, 2001).

Table 63

Relevance of forestry sector to NSGRP cluster #3

Goal	Operational target
#1: *Structures and systems* of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive	#1 Ensure representative, inclusive and accountable governance institutions operating at all levels
#2: *Equitable allocation* of public resources with corruption effectively addressed	#1 Public resources are allocated, accessible and used in an equitable, accountable and transparent way
	#2 Institute effective regulations and mechanisms regarding petty and grand corruption
#3: *Effective public service* framework in place to provide foundation for service delivery improvements and poverty reduction	#1 Administrative systems of public institutions are managed transparently and in the best interests of the people they serve
	#2 Decentralisation by devolution institutionalised and implemented to enhance public ownership of the development and poverty reduction process

Source: VPO (2005).

9.3.2 Contributions of logging and timber trade to NSGRP cluster #3

The relatively recent growth in timber trade, combined with a *Forest Policy* (1998) that promotes wider stakeholder involvement in forest management, has led to several interventions to improve regulation, accountability, empowerment and participation (Table 64).

Table 64

Major contributions of logging and timber trade towards NSGRP cluster #3

Goal	Contributions of logging and timber trade
#1: *Structures and systems* of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive	Greater participation of rural communities in timber trade management
	Step-wise approach to improving regulatory control
#2: *Equitable allocation* of public resources with corruption effectively addressed	Greater opportunities for rural communities to benefit from access and use of timber resources
	Recent increase in public interest
#3: *Effective public service* framework in place to provide foundation for service delivery improvements	Increased capacity at various levels of government – staff, finances, equipment
	Greater accountability being asked of public officials

Greater participation of rural communities in timber trade management

Progressive revisions to timber harvest and trade procedures have steadily given communities a stronger role. Prior to 2004, local communities were barely involved in timber trade decision-making, with the exception of the few villages involved in PFM initiatives (which at that time were in their infancy). Since February 2004, however, ***local communities have been further empowered, specifically with licence application procedures and supervision of the harvesting***. The most recent changes to timber harvesting and trade procedures further enhanced the role of village leadership by ensuring their place at relevant district-level discussions. In this way, revised harvesting procedures and PFM initiatives have helped to increase vertical accountability in the forestry sector.

Step-wise approach to improving regulatory control

The MNRT has introduced a range of regulatory interventions since 2003 to help prevent timber harvesting and trade from going out of control (see chapter 8.5.1). Amongst others, regulatory interventions have included total harvest and export bans; species, product and area-specific harvest restrictions; limitations on ports of exit, banning debarking; and revised licensing procedures. ***In terms of enforcement of these interventions, there have also been some notable successes***, starting in mid-2004 when tens of thousands of logs were inspected throughout Dar es Salaam and villages in southern Tanzania (Table 65). Despite limited capacity, forest officers have demonstrated commendable enforcement of the forest legislation on many occasions (see chapter 8.5.1; also Milledge *et al.*, 2005a,b).

It is unfortunately difficult to measure the effectiveness of enforcement of these various interventions without measuring enforcement effort. For example, it was clear that

funding and staffing levels targeting enforcement have risen since 2003, resulting in some significant seizures. However, ***it was not well understood whether there has been a notable change in enforcement effectiveness resulting from the increased capacity and experience gained in recent times***.

Table 65

Summary of enforcement exercises carried out during second half of 2004

Location	Description of enforcement exercise
Dar es Salaam port	Inspection of 157 containers holding around 7000 logs
Coast, Lindi and Mtwara Regions	Inspection of around 25 000 logs
Dar es Salaam loading yards	Inspection of logs belonging to 41 companies

The above issue notwithstanding, one of the positive aspects of some interventions has been the incremental approach. The MNRT managed to periodically review and assess the success of the various implementations on at least three occasions since 2003, thereby helping to improve regulation in a step-wise manner. ***Whilst the introduction of total harvest and/or export bans is never favourable, the fact that such severe measures were taken was also indicative of the seriousness of the Government of Tanzania to resolve outstanding compliance challenges.***

Greater opportunities for rural communities to benefit from timber resources

PFM arrangements have resulted in over 3.6 million hectares of forest (10.8% total forest area) placed under local management involving over 1800 villages by June 2006 (FBD, 2006). In 2005, PFM areas in southern Tanzania included five gazetted Village Forest Reserves and four joint management areas (Milledge *et al.*, 2005a). ***Central to the initial successes in creating opportunities to rural communities has been the ability to obtain formal rights to use and access forest resources*** through the *Forest Act of 2002, Village Land Act of 1999* and the *Local Government Act of 1982*. Importantly, ***numerous economic incentives have been created through PFM arrangements***: waiving state royalties on forest produce; retaining all revenue from the sale of forest products; levying and retaining fines; exemption from local government taxes on forest produce from village forest management; exemption from the national reserved species list; and ability to confiscate illegally harvested products and associated equipment (MNRT, 2006). Incentives for JFM may include the sharing of timber product revenues, retention of fines and disposal of confiscated items.

Some successes in PFM arrangements have been witnessed, with some villages now starting to realise their harvesting potential (e.g. Suledo forest, Kitete). Lessons learned

highlight the ***importance of non-threatening approaches in getting policy-makers and policy beneficiaries together, and maintaining a focus on responsibilities, rights and returns.*** Most success to date has been witnessed in community forests since all responsibilities, rights and returns are at local level, whilst more challenges are faced with JFM in protected and production forests.

Recent increase in public interest

There is little doubt that ***timber trade – and more specifically scandals involving timber trade activities – has stimulated a lot of media interest since mid-2004***. Prior to that time, coverage of forestry issues tended to show bias towards tree planting, catchment forest conservation and PFM. However, widely publicized coverage of the log inspections starting in July 2004 included front page articles in mainstream newspapers with continuous coverage lasting over a month. This level of interest in an environmental issue is believed to be unprecedented in Tanzania.

Selection of press clippings from mid-2004

Whilst coverage in local newspapers waned during 2005 – largely because a ban was being enforced for much of the time – logging and timber trade issues frequently hit the headlines of six newspapers during the first six months of 2006 (Figure 74). It was noticeable that a large proportion of press coverage was published within IPP Media publications.

Notably, recent publicised events included the ***first public acknowledgement of internal FBD involvement in illegal logging***. In May, the Minister of Natural Resources and Tourism was quoted as saying, *"Our employees are involved. You wake up in the morning only to find that licences have been issued without regard to whether the business people are certified to export logs or not"* (The Guardian, 10th May 2006).

On the 12th June 2006, the television channel ITV provided an opportunity to assess public opinion regarding logging. As part of a regular programme to gather public perceptions, viewers were asked whether those mandated to supervise the current harvest ban have failed in light of ongoing compliance shortfalls. In the event, the majority (59%) voted "Yes".

Figure 74

Selection of newspaper headlines during 2006

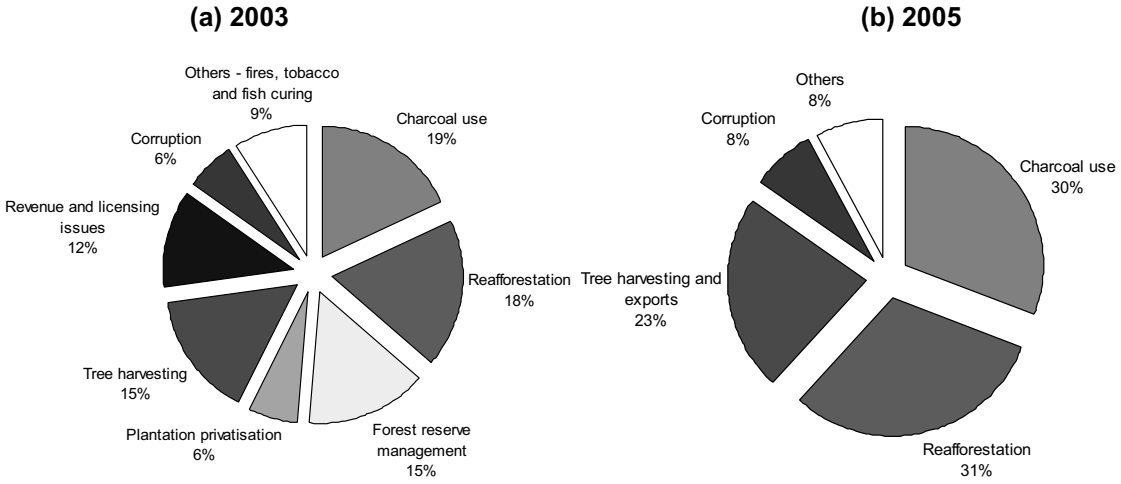
Timber factories back to business *(Guardian, 4 January)*
Government bans export of timber *(Citizen, 2 February)*
Govt bans log exports (Daily News, 2 February)
Foresters support govt ban on log exports *(Daily News, 4 February)*
Exporters say they'll lose $4.6m as govt moves to save forests *(East African, 6-12 February)*
Dar residents now face acute charcoal scarcity *(Guardian, 7 February)*
Sandalwood story without any happy ending *(Sunday News, 19 February)*
Ban on forest products praised *(Sunday Observer, 5 March)*
Forestry agency to avert crisis? *(Citizen, 17 March)*
Loggers seek leniency on export ban *(Sunday Observer, 7 May)*
Lowassa: Drought due to tree felling *(Citizen, 9 March)*
Govt bans export of sawn timber *(Daily News, 11 March)*
Dealers express concern over the ban *(Sunday Citizen, 12 March)*
New forest rules on the way *(Citizen, 17 March)*
Guideline on harvesting indigenous forestry products out *(Guardian, 4 April)*
No let up in war against illegal forest harvesters *(Guardian, 25 April)*
Govt faces big loss in logging business *(Daily News, 8 May)*
Illegal Logging: Minister admits staff involvement *(Guardian, 10 May)*
Illegal loggers, timber exporters shielded? *(Guardian, 11 May)*
Government stumbles on haul of banned sandalwood *(This Day, 20 May)*
Mayor's son in wrangle over illegal logs export *(This Day, 1 December)*

Reviewing parliamentary discussions is one of the few public means to determine levels of political awareness and debate regarding issues of national interest. The parliamentary sessions held in July 2003 (introducing the 2003/2004 budget) presented an excellent opportunity to review the levels of debate on not only environmental issues in general, but also specific forestry-related matters at a time when timber trade in southern Tanzania was increasing at a tremendous rate yet the implications were barely known outside those directly involved in the business (Figure 75). In addition, the parliamentary sessions held two years later during presentation of the 2005/2006 budget provided an opportunity to review the situation following an extended period of trade restrictions and higher media coverage.

It would be expected that Members of Parliament relay the concerns of their respective constituencies, including illegal and unsustainable logging activities (a measure of vertical accountability). Indeed, the relative number of constructive criticisms regarding tree harvesting and exports increased from 15% of all interventions in 2003 to 23% in 2005 (Figure 75). Also of note was the Minister's response in 2005, which covered harvest and export issues in much more detail. On both occasions, however, there were notably few interventions (and no responses) regarding corruption in the forestry sector.

Figure 75

Constructive criticisms regarding forestry issues made by Members of Parliament



Source: Parliamentary proceedings.

Increased capacity at various levels of government – staff, finances, equipment

Highlighting the need for additional capacity has justified annual budgetary increases to the forestry sector since 2003. In turn, this has enabled essential activities to be undertaken, many of which were neglected in the past such as forest patrols and convening licensing committee meetings. For example, the FBD budget for 2004/2005 was increased by almost TZS 100 million (almost USD 95 000) to TZS 4.9 billion (USD over 4.6 million). Whilst a staffing and equipment deficit remains, efforts have been made to increase numbers of forest officers and transport (Milledge *et al.*, 2005a).

Greater accountability being asked of public officials

Presidential oversight of forestry sector issues was apparent throughout 2004 and 2005, with a primary focus on tree planting (e.g. directives to ensure tree harvesting is complemented with tree planting), exports (e.g. directives to prevent log shipments) and PFM (e.g. directives to expand PFM nationwide).

Since the beginning of 2006, coinciding with the fourth phase government, ***additional emphasis has been placed on the accountability of forestry staff***. In addition to personal visits by the President to the MNRT, public pronouncements have been made that disapprove of any involvement of forest officers in the timber business. It was also been reported that recent transfers of senior FBD staff were made to strengthen internal accountability measures.

9.3.3 Threats posed by logging and timber trade to NSGRP cluster #3

As described in detail in chapter 1, logging and timber trade pose a range of threats to achieving good governance and accountability (Table 66).

Table 66

Major threats to NSGRP cluster #3 posed by logging and timber trade

Goal	Threats posed by logging and timber trade
#1: *Structures and systems* of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive	Inadequate enforcement of laws and disciplinary action
	Greater empowerment of rural communities needed
	Conflicts in regulations
#2: *Equitable allocation* of public resources with corruption effectively addressed	Pervasive corruption undermining effectiveness of many interventions
	Low transparency in the circulation of information and decision making
	High levels of illegality
#3: *Effective public service* framework in place to provide foundation for service delivery improvements	Low participation of some stakeholders
	Insufficient capacity
	Insufficient accountability mechanisms and integrity

Inadequate enforcement of laws and disciplinary action

Whilst capacity constraints are commonly quoted as the primary reason for inadequate enforcement, another important reason from the governance perspective is the close relationships (and collusion) between many larger companies and some senior public officials. These relationships have continued to persist despite various enforcement exercises since mid-2004. As a result, ***larger and well-connected companies carried low risks by operating illegally, whilst smaller-scale timber traders disproportionately bore the brunt of targeted enforcement exercises***. For example, there was a notable absence of serious legal action taken against offending companies during 2004 in particular, despite the massive scale of many infractions. On the contrary, most of those involved were subsequently allowed to purchase other confiscated logs by auction.

Even at lower levels of the trade chain, the risks of transporting irregular timber products have been relatively low since, at worst, outstanding dues and a relatively small fine would be paid. Confiscation and legal action were very rare, resulting in some traders continuing business despite being repeat offenders.

The existence of influential relationships that facilitate collusive behaviour have also actively enabled ongoing illegal timber harvesting and trade, including shipments through Dar es Salaam port (theoretically an effective 'bottleneck' to facilitate compliance monitoring and prevent illegal shipments). ***A combination of deception***

and collusion has enabled ongoing illegal shipments – reportedly up to 20 containers weekly in early 2006 – during periods of harvest and export bans.

In a similar fashion, there has been relatively little action taken against public officials implicated in irregular conduct relating to timber trade, with ***the limited disciplinary action taken to date arguably more symbolic than solving the root causes***. Whilst it is also recognised that large-scale disciplinary action against public officials could result in capacity gaps, it is equally clear that disciplinary action handed out to date has not solved the problem of internal collusion in illegal timber trade activities. In the case of MNRT, some argued that disciplinary actions taken against some individuals and not others may have resulted in deeper fractioning.

Greater empowerment of rural communities needed

In a review of forestry governance in Tanzania, Mariki (2004) stated that *"most economic returns on forest management are not immediate, direct and sometimes not apparent"*. Whilst various CBFM initiatives are underway in southern Tanzania, there remains a ***great challenge of ensuring a wide understanding at the community level of rights and potential benefits***. Only when this understanding is achieved will 'informal contractual agreements' be made between rural communities and local government, ***leading communities to become adequately vociferous and thus strengthen vertical accountability.*** At the same time, there is a need to ensure this enlightenment and new understanding is not limited to relatively few people (in leadership) as a means to ensure deliberate control.

Specific concerns reported by civil society regarding realisation of PFM ambitions included the following: declining government budgetary support to PFM with a steadily increasing proportion of funding coming from external donors; lack of proactive engagement of civil society in government-led PFM processes; mismanagement of documentation such as management plans; increased bureaucracy of new licence procedures; and a reluctance to proceed with PFM multi-stakeholder processes in the absence of per diem incentives.

Experience between 2003 and 2005 has shown how in the absence of this wider understanding, even villages that have undertaken several years of PFM initiatives ended up with a few powerful individuals in leadership getting personally involved with large-scale logging and timber trade activities. The end result in some cases was not only unsustainable harvests, but poorly distributed incomes.

Nevertheless, huge potential exists to address this weakness. The *Forest Act of 2002* provides a legal basis for communities to reserve and protect forest areas on village land. Active outreach programmes are required to enable communities to follow the

necessary steps, such as developing a management plan, by-laws and establishing a village committee, to enable villages to police, protect and utilise their own forests on a sustainable basis and for the good of the local community.

Conflicts in regulations

Regulations governing timber harvests and trade are generally very comprehensive. One particular anomaly in the current *Forest Act of 2002* arose during late 2004 when exporters petitioned for, and succeeded, in changing methods used to calculate payments for excess timber volumes. ***A conflict exists in the Forest Act regarding the payment of logs, with two rates used under different circumstances***. Under normal conditions, harvesting fees are calculated based on 'whole tree' volume, whilst fees paid for excess volumes (e.g. following confiscations) are based on the 'log volume'.

A more important potential conflict exists in the implementation of national harvest bans, as allowed by the Minister of NRT under the *Forest Act of 2002*. Whilst national level restrictions are arguably needed in desperate circumstances, the knock-on effects on rural communities involved in PFM could be catastrophic. ***One of the primary economic incentives for PFM is timber trade and a national ban can thus quickly remove most PFM incentives***, which is clearly not in the interests of the *National Forest Policy (1998)*. The process for application of national harvest bans requires further scrutiny to address any breaching of PFM agreement and or other potential issues of conflict.

Pervasive corruption undermining effectiveness of many interventions

A study on growth and environmental links conducted by the World Bank in 2005 concluded that *"corruption and inefficient administration and management"* in the forestry (and wildlife) sector lead to losses in government revenues and livelihood benefits, resulting in an overall undervaluation of the sector (World Bank, 2005b). The report further stated that "*the 2004 logging scandal in Rufiji demonstrated that ineffective control systems and government corruption are still by far the greatest challenge that the forest sector has to face."*

This study has for the first time documented ***considerable evidence of widespread petty corruption in the timber trade sector (normally in the form of small-scale bribery both for need and greed) and highly organised patronage and personal involvement*** (with serious implications for decision-making within government regulatory structures).

With respect to petty corruption, it was apparent that even trade activities involving *legally*-harvested timber products were unfortunately affected by bribery. This indicated how timber trade in southern Tanzania had fallen prey to more *chronic* forms

of petty corruption. Another concern was the likelihood of trade restrictions failing since they tend to be applied at the same trade 'bottlenecks' that are most influenced by bribery (e.g. hammering, internal transport and export stages). Further, the same stages of the trade chain exhibiting *highest relative frequency* of bribery were also experiencing *increasing trends* in bribery.

Amongst the ***greatest concerns with respect to governance and accountability was the influence that collusive networks and an overwhelming private sector*** may have on decisions relating to relaxing timber trade restrictions, financial management and the effectiveness of enforcement (see chapter 8.5.2 for more details). ***The presence of direct interests in timber trade within Executive and Ministerial levels arguably presented the most concern with respect to ensuring integrity in decision-making, fairness, impartiality, transparency and justice***. At village level, the personal involvement of village leaders in timber trade has led to an unfair distribution of profits. ***The combination of direct involvement in timber trade by senior public officials, overwhelming control by the private sector, and shortfalls in management decision-making – all of which are somehow related – were seen as the worst forms of timber trade-related corruption from a long-term development perspective.***

Statistics supplied by PCB further demonstrated ***limited progress against corruption both in southern Tanzania and in the forestry sector.*** The numbers of cases prosecuted by PCB in south-eastern Tanzania were noticeably low, when compared to the rest of the country. For example, out of a total 191 cases nationwide between January 2004 and June 2005, just nine (5%) occurred in Lindi, Pwani, Mtwara and Ruvuma Regions[105] (Hoseah, 2005). Further, the natural resources sector has typically received few reported cases of corruption, when compared to other ministries, departments and agencies. For example, some 74 MNRT corruption cases were reported between 2002 and 2003, relatively small when compared to the total of 3078 reported cases to PCB during the same period. Only four complaints concerning the MNRT were received between October and December 2004, at the height of controversy in the forestry sector (PO-GGCU, 2004).

Khan *et al.* (2005) argued that one major reason why many anti-corruption strategies have failed in Tanzania is that *"they ignore the interdependence of different types of corruption"*. For example, anti-corruption strategies aimed at addressing bureaucratic corruption (e.g. increasing salaries, enhancing accountability and transparency of budgetary and expenditure processes, and limiting state activity to core service delivery areas) may not influence other drivers, such as bureaucratic involvement with political

[105] The majority of cases occurred in Dar es Salaam and north-western Tanzania, although it is not clear whether this apparent spatial pattern (i.e. low incidence of cases in south-eastern Tanzania) provides a real reflection of corruption levels, or instead is purely an artefact of differing levels of reporting to, and follow-up by, the PCB.

corruption. Indeed, they may even inadvertently tilt the balance of political stabilization, forcing the state to increasingly engage in predatory extraction as a means to collect rents. Specifically, they claimed that efforts in the recent past to reduce corruption in budgetary processes have *"directed attention away from growing corruption in areas such as land allocation and natural resource licensing"* (Khan *et al.*, 2005). ***In light of the ongoing process of decentralisation, increasing value of forest resources, and some evidence of factionalism within MNRT, it is important that anti-corruption efforts in the forestry sector ensure that those involved in corruption are not the ones leading anti-corruption strategies.*** Otherwise, short-term decision making by factions in control of resource ministries are unlikely to match national interests.[106]

Low transparency in the circulation of information and decision making

Whilst the media has helped to ensure greater public awareness and even debate over timber trade in Tanzania, there has been a tendancy for surges in media coverage to take place when there is high tension between the government and private sector (e.g. during a ban). In contrast, there has been a ***noticeable dearth of public information following the cessation or relaxation of harvest/trade restrictions, yet important management decisions continue to be made that are of significance to the general public***. For example, while there was press coverage on some three occasions of the fact that logs were to be inspected throughout southern Tanzania during the last half of 2004, the final results of the subsequent auction were never reported. This is despite the fact that much of the logs to be auctioned originated from public land, and raised questions over the true levels of vertical accountability regarding logging. Similarly, companies given special permission to harvest or export during nationwide bans were not publicized.

Other important public information lacking at district, ward and village levels included forest-related budget allocations, disbursements of funds and revenues. This kind of financial management information would be useful, particularly at local levels, to strengthen the 'informal contractual agreements' between government and civil society regarding sourcing and use of government revenues.

The creation of TFS is another important area of change that has been poorly shared with the general public and other stakeholders (e.g. development partners and civil society organisations). In addition to long delays in its establishment, there was a very

[106] *"Local elite groups appear to be tapping into the fragmented factions of the CCM to use local political influence to acquire land potentially for speculation rather than for productive use, exacerbated by the fact that the potential growth of tourism and natural resource extraction encourages the speculative acquisition of land by political entrepreneurs and 'business' interests associated with them."* (Khan *et al.*, 2005).

low understanding amongst most stakeholders regarding reasons for its delay and the precise change in management process.

High levels of illegality

The majority of timber products traded from southern Tanzania in recent years was harvested in an irregular or illegal manner. Chapter 8.2.2 demonstrated an apparent increase in levels of illegal activity in the study area over the past three years, from 77% during 2001-2002 to 96%, at worst, during mid-2004. ***Results from patrols during 2005 and 2006 have further confirmed ongoing compliance challenges***.

Low participation of some stakeholders

This study highlighted a ***range of factors limiting the effective engagement of different stakeholders in forestry governance issues***, ranging from varying levels of knowledge about forestry governance issues to conflicts of interest (Table 67). ***Better participation is required to improve forestry governance.*** Overall, there remains a need to raise the profile of forestry governance amongst most stakeholders, and to build stronger linkages between key partners.

Table 67

Stakeholder knowledge and engagement to resolve forestry governance issues

Stakeholder	Knowledge	Factors limiting engagement
Executive	Medium	Limited action to resolve internal involvement
Parliament	Medium	Main focus on other initatives such as tree planting
Judiciary	Low	Limited engagement of PCB in environment
Private sector	High	Few positive incentives to engage
MNRT	High	Conflicts of interest and limited capacity
PMO-RALG	Medium	Conflicts of interest and low priority to forestry in general
National media	High	Limited linkages with other stakeholders
Rural communities	Medium	Low priority and often powerless
Environmental NGOs	Medium	Poor security of tenure (fear of retribution) limits incentives
Development partners	Medium	Challenge to ensure sufficient internal support

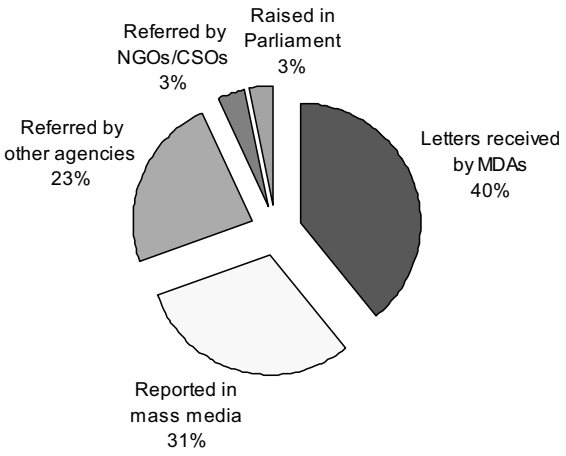
Note: Assessment derived from information gathered during stakeholder interviews.

It was notable how environmental NGOs, both national and international, were limited in their engagement in any governance issue due to either a lack of understanding or low incentives. As an indicator of limited NGO engagement in addressing corruption, very few corruption cases are referred to PCB by NGOs/CSOs (e.g. only 137 out of 3998

cases reported between 2002 and the first half of 2004; Figure 76). At the same time, civil society holds great potential to become more deeply engaged in policy processes, public awareness raising, training and research to improve forestry governance and vertical accountability.

Figure 76

Sources of information on corruption provided to PCB, 2002-2004



Source: NACSAP data.

Insufficient capacity

Current low levels of staffing, with many nearing retirement and limited recruitment, is a critical factor affecting performance in the forestry sector at both central and local government levels. In comparison to the rest of the country, few staff were operational in western and southern Tanzania, with limited recent success to attract new recruits.

As a result of limited staffing, ***many forest officers have been tasked with excessive administrative and technical functions for an entire district,*** including the issuance of licences, collection of revenue, hammering timber products, conducting inspections and patrols, and administrative reporting amongst other tasks. Aside from the conflicts and potential dangers associated with such *multi-tasking*, it was, frankly, impossible to conduct all these duties satisfactorily. Predictably, revenue collection inevitably overrode field-based duties such as measuring and marking standing/ felled trees.

Credit: Simon Milledge/ TRAFFIC

Logs awaiting inspection, Rufiji District

There also ***appeared to be an apparent contradiction in terms of government intentions to outsource many services*** (as opposed to expanding the workforce), yet

devolvement and engagement of service providers is reluctantly implemented by MNRT. Indeed, the process to establish the TFS – which would partly address issues relating to service provision – has yet to be finalised despite being started back in 2000; this extended period has witnessed the highest illegal harvesting and trade in the sector.

Aside from staff and operational equipment shortages, reported constraints affecting enforcement include a lack of skills to identify timber products, collect necessary evidence and present cases successfully in court. In addition, the lack of collaborative enforcement efforts between districts was quoted as a hindrance to successful investigations and court outcomes.

A fundamental issue reported during interviews with various stakeholders was the ***low incidence of forest officers actually entering forests as prescribed in regulations*** to measure, mark and verify trees before and after harvesting. In the limited number of cases where forest officers did make excursions into the forests in advance of tree felling, most were not measuring the standing volume of timber; moreover, standardised universal procedures for estimating the timber volume in the forest did not exist.

Lastly, it was reported during this study that ***whilst civil service procedures clearly requires open and competitive recruitment, there have been appointments within the forestry sector to the contrary***. In some instances, it was possible that placements may have assisted in facilitating corrupt processes.

Insufficient accountability mechanisms and integrity

Work conducted by TRAFFIC since 2001 in the forestry sector has highlighted the utility of analyzing timber trade data for management decision-making and early warning purposes, yet there remains a ***general lack of detailed monitoring by both central and local (district) government authorities.*** For example, despite the development of a comprehensive monitoring system in 2003, FBD only started recording detailed export statistics on forestry products in July 2005. The one notable exception is timber trade revenue data which has been routinely collected and analysed.

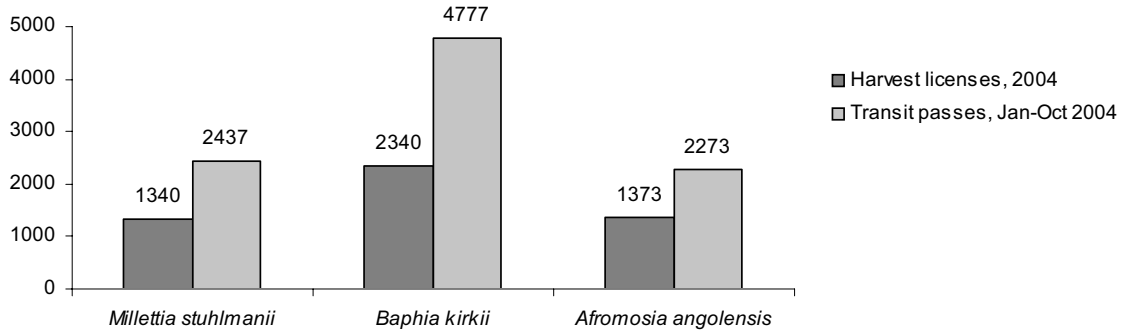
The general dearth of broader monitoring makes it not only difficult to gain sufficient understanding of changing timber trade dynamics, but inconsistencies may also be overlooked[107]. For example, Figure 77 clearly highlights a typical kind of discrepancy

[107] Kobb *et al.* (1999) contend that ***integrity*** was the key issue facing low compliance rates (0.83%) for forestry tax collections in Tabora, since not only was compliance low at potential surveillance/collection points very near to the forestry offices, but covert observations revealed large discrepancies in checkpoint records. Kobb (1999) went further to say how some public officials deliberately underperformed to cloak corruption as financial uncertainty, poor planning, unrealistic budgeting, inadequate record keeping, irregular accounting, overlapping responsibilities, and institutional fragmentation. Kobb (1999) claimed that corruption disguised by disorganisation and intransparency was motivated by the fact that inability (poor performance and incompetence) may not constitute strong enough grounds for termination in Tanzania.

between the volumes of timber permitted on harvest licences and transit passes for three hardwood species dominating trade during 2004 – *Millettia stuhlmannii, Baphia kirkii* and *Pericopsis angolensis*.

Figure 77

Discrepancies in timber volumes (m^3) on different documentation in Rufiji District, 2004



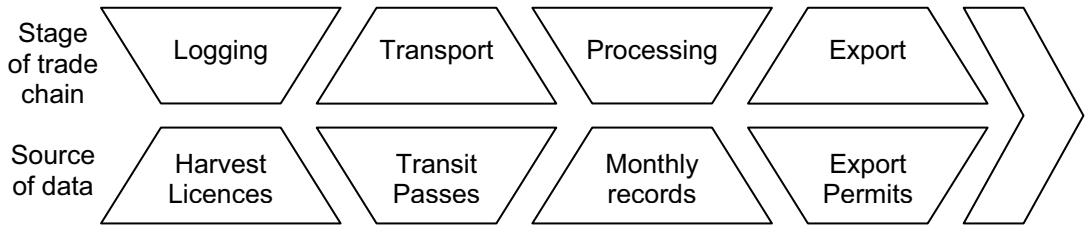
Source: Rufiji District harvest licences and transit passes, 2004.

As a more specific example, it is questionable why a harvest licence permitting the harvest of a large quantity of *Millettia stuhlmannii* logs (155 m^3) was issued from Masasi District on 28th June 2004, only two days before the end of the year (and following an additional 1235 m^3 isued between 1st June and 27th July 2004).

The lack of standardised forest management plans, together with inadequate reporting on harvest levels and performance to MNRT, has seriously eroded the ability to analyse and undergo adaptive management. As a result, timber harvesting has been driven and influenced almost exclusively by private sector interests. Clear opportunities do exist for improved monitoring, employing a combination of routine data collection from different sources (Figure 78) and systematic inspections to help verification.

Figure 78

Illustration of primary sources of monitoring data along different stages of trade chain



10 RECOMMENDATIONS

Although the focus of this study was southern Tanzania, it is generally felt that many of the generic issues are relevant to other parts of the country to varying degrees. The recommendations presented below have greater emphasis on improving forestry governance and should therefore hold true for nationwide application.

10.1 Prioritising efforts to address governance and holistic approaches

This study has demonstrated the extent of governance shortfalls within the forestry sector, specifically those affecting logging and timber trade. It is evident that governance shortfalls are not only limiting the effectiveness of existing and future management interventions, but are also undermining the NSGRP. Indeed, perhaps the most overriding recommendation arising from this study is the ***need to devote dedicated attention to forestry governance***, not only by the Tanzanian government but also other important stakeholders such as development partners, relevant civil society organisations and the private sector. This transition may require changes in prioritisation and skill capacities by different stakeholders involved.

To date, the majority of management interventions have been regulatory in nature, aiming to restrict or exert greater control on logging and timber trade activities as evidence of uncontrolled activities have mounted. This study argues that ***additional regulatory measures are not necessarily required; instead improvements to the efficiency of existing instruments are more relevant in improving regulation***.

This study has also shown that ***arguably the primary factor affecting governance shortfalls is corruption and that insufficient effort has been made to address it effectively.*** Corruption has occurred at many levels and ranging in scale from bribery (petty corruption) to personal involvement and collusion involving senior public officials (grand corruption) and adverse decision making. Most efforts to address corruption in the forestry sector have focussed on bribery and other forms of bureaucratic corruption, perhaps the most obvious and easiest to combat in the short-term. However, the emerging dynamic of powerful and organised involvement of senior public officials in timber-related businesses, including members of the Executive, raises the spectre of the forestry sector becoming more influenced by political corruption (as has indeed happened in several other countries worldwide). The worst scenario would be where control over forestry resources becomes heavily linked to developing political factions, leading to shorter-term decision making and forms of corruption that are very difficult to reverse. It is therefore essential that ***a more holistic approach is taken to address governance shortfalls in the forestry sector*** (and indeed, all natural resource

sectors), since *polarised* interventions targeting *one* form of corruption tend to inadvertently shift emphasis to another, possibly more damaging, form.

The following recommendations are aimed at addressing both deliberate (e.g. corruption) and non-deliberate (e.g. institutional arrangements, capacity) causes of governance shortfalls. It is envisaged the application of all these measures can indeed provide the kind of holistic approach required to improve forestry governance effectively in the long term. In addition to measures to improve accountability, transparency and human resources, recommendations are provided to boost economic returns, improve existing compliance controls, encourage incentive-driven approaches and make forest management reach more professional standards (Table 70).

10.2 Accountability mechanisms

The *opportunity* for corruption generally arises from insufficient oversight and other institutional arrangements, which themselves aim to provide means of accountability, transparency and coherent organization. The following recommendations strive to strengthen *horizontal* accountability, including relationships within the MNRT as well as other intra-governmental control mechanisms. The implementation of independent forest monitoring would also strengthen *vertical* (societal) accountability between citizens and government.

10.2.1 Strengthening answerability within MNRT

Emphasis on collecting relevant logging and timber trade statistics and, more importantly, information management at the national level, has declined in recent years due to other priorities within MNRT. As a result, not only are their gaps in information, but the accuracy is highly questionable and, with the exception of revenue information, not subjected to any real scrutiny by senior management. This situation can provide a cover for a number of different irregular actions to go unnoticed (e.g. large discrepancies between harvest licence, transit pass and checkpoint data) and precludes effective compliance monitoring.

Fortunately, clear opportunities do exist to improve the routine monitoring and national oversight of logging, timber trade, processing and exports. As prescribed by the *Forest Act of 2002, Forest Regulations of 2004* and other guidelines, documentation routinely used cover all stages of the trade chain: starting up a business (e.g. Certificate of Registration, bank returns), logging (Harvest Licence), transport (Transit Pass), processing (monthly forest produce dealer records) and export (Export Certificate, customs documentation). In addition, some checkpoints maintain a register of all forest products in transit, although this information is not analysed by government. The

challenge is to develop simple mechanisms to ensure data collation and oversight. In order to better utilise these sources of information, the following measures are recommended.

• **Monthly reporting:** On a monthly basis, relevant officers in charge at each stage of the trade chain submit summary reports to senior management (Head of FBD/TFS). The format would vary according to the data source in question, but would always need to specify the type of forest product (using standardised categories nationwide), quantity (e.g. volume), origin (e.g. forest area, sawmill, town, etc.), destination, value and ownership.

• **Management oversight:** At minimum, three levels of scrutiny of these reports are required by senior forestry management (conducted on a quarterly basis):

- ***By source forest*** (i.e. comparison of actual harvesting with forest management and harvest plans);
- ***By trader*** (i.e. comparison of actual logging, processing or transport with granted permission as per licences); and
- ***By overall quantity*** (i.e. enabling reconciliation of total volumes with revenue information, and enabling a general oversight into landscape-level harvesting, processing and trade dynamics).

• **Inspections:** Inspections, whilst resource intensive, are required to enable checks and balances on the above-mentioned standard monitoring mechanisms. Inspections should be carried out using three methods:

- ***Systematic inspections*** of all stages of the trade chain (i.e. periodic, planned inspections to verify accuracy of reported information[108]);
- ***Ad hoc inspections*** of all stages of the trade chain (i.e. unscheduled visits); and
- ***Targeted inspections*** (i.e. following provision of specific intelligence).

Inspection results should be used to help verify levels of compliance (legality) and importantly, the results of the three each techniques should be compared to help assess the most cost-effective compliance monitoring methods.

• **Audits:** In the same way, there is a need to improve the routine monitoring and oversight of revenues and expenditures at central and local government levels through ongoing audits, with additional emphasis on monitoring the established mechanism for remittance of money (accrued from central forest reserves to MNRT, and from local

[108] Checking the accuracy of reported information can include two methods: (i) comparing reported information against source documents using standard audit methods; and (ii) independent, truth-checking using field counting.

government forest reserves to local councils) and a review of expenditures to enable public officials to be confronted with their expenditure choices.

• **National task force:** Learning from experiences in other regions (e.g. Southeast Asia, Europe), it is recommended that Tanzania should set up a national task force on forest law enforcement and governance to facilitate efficient cooperation and information sharing, as well as following up on implementation of the *Indicative List of Actions* that emerged from the 2003 AFLEG Ministerial Conference (refer to Table 53).

10.2.2 Wider government involvement in forestry governance issues

Broader horizontal accountability requires the involvement of government stakeholders outside of MNRT. Indeed, the NFP has facilitated broader government participation through the NFP Steering Committee (and Forestry Advisory Group). Governance issues, in particular corruption and illegal activities, require the attention of parts of government dealing with financial integrity, politics, corruption and ethics.

• **Public Ethics Commission:** One strategy to combat corruption set by the fourth phase government is for the Public Ethics Commission to request public officials to account for assets and wealth. In the interest of improved governance, it is recommended that as part of this process special attention is paid to natural resources assets, wealth and business ties, in particular by public officials within MNRT and, at a higher level, all members of the Executive. Internal disclosure of assets would be a first important step towards breaking unhealthy ties between senior public officials and the timber industry.

• **Parliamentary Natural Resources and Environmental Committee:** As a means to enhance the level of debate regarding forestry management and governance in general, it is recommended that the Parliamentary Natural Resources and Environmental Committee be facilitated to produce an action plan for overseeing developments within the forestry sector.

• **Prevention of Corruption Bureau**: Statistics over the past few years indicate few corruption cases concerning the environment, let alone forests, highlighting the need to improve information exchange and linkages between stakeholders. As a first step towards receiving greater cooperation, it is recommended that a seminar be held to raise awareness amongst PCB, police, customs, forestry officials and other relevant stakeholders (e.g. media, civil society organisations) regarding corruption issues facing the forestry sector. Civil society organisations need to be enlightened on existing outlets for citizen complaints and mechanisms of protection for whistleblowers.

• **Auditor General:** As part of ongoing efforts to review public income and expenditure, forestry (and other natural resources) should be allocated greater emphasis, including not only a review of existing processes/systems (e.g. documentation used,

procedures, roles, etc.) but also to analyse a sample of district data, comparing income-expenditure information with forest statistics (e.g. forest cover and logging levels).

- **Revolutionary Government of Zanzibar:** Zanzibar is increasingly becoming a staging post for shipping timber products from mainland Tanzania (and neighbouring countries) to overseas destinations. Harmonisation of export policies is required to avoid export restrictions from mainland Tanzanian being undermined elsewhere, and public officials from Zanzibar should be invited to participate in relevant national fora.

- **Civil Service Management:** To reduce the likelihood of non-competitive forestry sector appointments, extra scrutiny is required to ensure accountability and placement of competent forestry public officials.

- **Development partners:** Harmonization and cohesive action amongst development partners is an important foundation for promoting greater *external* accountability. However, one precursor is to ensure forestry governance receives the warranted level of internal support by development partners for long-term action. This can prove challenging given the range of governance issues being addressed by development partners and specific areas of staff expertise. It is therefore important for these environmental actors to develop coherent strategies to leverage the necessary support amongst their colleagues working on promoting good governance (and other sectors such as transport and private sector). In addition, development partners supporting the forestry sector should develop and communicate a common position regarding forestry governance issues to the Tanzanian government, as well as forwarding issues relevant to their respective overseas constituencies.

10.2.3 Promoting transparency and knowledge sharing

Transparency is an underemphasised pillar of institutional reform yet it is associated with better socio-economic and human development indicators, as well as higher competitiveness and lower corruption. Further, transparency initiatives appear to be a net saver of public resources in that they are often relatively cheap to implement. Various tools to enhance transparency are possible in Tanzania.

- **Private sector guidelines:** the precise steps to be followed by a private investor, local and foreign, remain unclear due to recent changes to licensing procedures. As a result, there is a need to *revise and publicise* the guidelines for harvesting, processing and exporting timber products. Importantly, revision of these procedures should also aim to include three essential pieces of information to help improve professionalism, transparency and reduce the risk of bureaucratic corruption – clear criteria for how applications are assessed, timeframes for each stage of the process, and defined roles and responsibilities for public officials tasked with processing applications.

Importantly, the process should be posted in relevant public places and published in local newspapers.

• **Multi-stakeholder meetings:** Meetings between FBD and private sector players have been held almost annually for the past few years, where in the past important issues of public interest have been debated. It is recommended that these meetings receive a wider representation, most notably inviting representatives from civil society with expertise in areas such as forestry, PFM and timber trade. Further, in the interests of transparency, it is recommended that minutes of these meetings are made available to the public.

• **Notice boards:** The use of public notice boards at village and district levels is increasingly being promoted as a cost-effective means to facilitate exchange of information and promote transparency in decision-making. To date, posting of forestry-related information on notice boards has been largely voluntary and *ad hoc* in nature. It is recommended that it becomes compulsory for the following types of information to be posted on notice boards at village, district and central government (FBD):

- ***Outcomes of applications:*** List of applicants, details of permission given to successful applicants and reasons for rejection of unsuccessful applicants (posted at beginning of year);
- ***Actual timber trade:*** List of actual levels of timber trade activity over the entire year (e.g. harvests, processing or export) and total revenue collected (posted at end of year);
- ***Financial summary:*** Summary of timber trade-related income and expenditures (posted at end of year);
- ***Infractions:*** Details of infractions and outcomes (e.g. penalties, auctions, etc.) (posted at end of year);
- ***Review process:*** Towards the end of the year, timeframes and deadlines for receiving applications, screening, decision-making and posting of results.

• **Harvest plans:** District timber harvesting plans, based on forest inventories, should be made publically available, especially since they will normally include information on forests found on public land.

• **Local media:** There is little doubt that people living in more rural areas have benefited from extensive radio and newspaper coverage as timber trade-related events have unfolded over the past two years. It is likely, although not possible to measure, that this rise in awareness was somehow translated into leaders being held more accountable, i.e. greater vertical (electoral and societal) accountability. All stakeholders have a role to play in involving (and educating) journalists:

- ***Civil society:*** Non-governmental organisations should raise the profile of the impact of unsustainable timber trade on poverty alleviation, covering the clear role that trade in forest products plays in achieving national development goals; the high levels of poverty in southern Tanzania and rural peoples' dependence on natural resources; the forest custodianship role that communities play in unreserved land; the level of disenfranchisement that communities can experience during unregulated timber trade; and long-term effects of depleted timber resources on PFM initiatives.
- ***Government:*** Since many timber resources originate from public land, the government should make greater effort to publicize relevant developments that are in the interests of the general public, thereby removing the perception of non-transparent decision-making. Examples include publicizing revised permitting procedures for harvesting and trade in timber products, the results of public timber auctions, lists of licenced timber exporters (and details of permitted exports), annual forestry budgets, revenues and expenditures, outcomes of court cases and the extent of mal-administration.
- ***Private sector:*** Rarely does the private sector involve the media unless a serious restriction has been imposed, implying it is mainly an avenue for protecting business interests. However, the private sector holds the potential to highlight wider socio-economic benefits from logging, as well as opinions on how the timber industry could be improved and contribute more towards NSGRP.

• **Advertisements:** A targeted campaign on anti-forest-corruption using advertisements in all formats (television, radio and print) would greatly help to raise the profile of forestry governance issues in the country. This would, in turn, help to change out-of-date perceptions on forest ownership and access, replacing them with the real opportunities presented in the new *Forest Policy of 1998* and *Forest Act of 2002*.

• **Civil society fora:** Wider civil society involvement and debate on forestry governance is required to not only stimulate greater vertical (societal) accountability but also to address an apparent weakness within civil society – low awareness of socio-political factors affecting governance and limited private sector involvement. It is important for non-governmental players working in the forestry sector to link with broader civil society groupings. In the same way that government is encouraged to create linkages between ministries (e.g. forestry sector linkages with environment, agriculture, energy, health, lands, water and wildlife), the same reasons apply to civil society organisations.

• **Communications:** In the absence of a truly consultative process of policy formation, it is evident that many villagers in southern Tanzania do not consider activities in contravention of forest legislation a serious illegal activity. It is important that the MNRT consider a well-implemented communication strategy to address such attitudes.

10.2.4 Development of independent forest monitoring capacity

Under the right conditions, independent forest monitoring (IFM) can become a useful tool in improving forestry governance and law enforcement. One definition of IFM is the *"use of an independent third party that, by agreement with state authorities, provides an assessment of legal compliance, and observation of and guidance on official forest law enforcement systems*" (Global Witness, 2005). It is designed to be a relatively short-term (three to five years) intervention. Under IFM, routine monitoring of the levels of legality allows for a more accurate assessment of compliance effectiveness, whilst information derived from monitoring[109] and multi-stakeholder participation may strengthen enforcement efforts. Further, IFM is a tool that could improve both horizontal and vertical accountability, by firstly strengthening existing government monitoring and compliance mechanisms (horizontal), and secondly ensuring the involvement of civil society organisations, media and private sector (vertical). Current initiatives to investigate the feasibility of IFM in Tanzania should consider the following issues.

- **Development focus:** In addition to maintaining a focus on the legality of logging and timber trade (i.e. compliance with existing laws), IFM in the context of Tanzania requires a stronger terms of reference to encourage a greater attention to rural livelihoods (e.g. levels of empowerment, benefits and compliance), increased transparency and more civil society engagement, as a means to ensure IFM contributes directly towards NSGRP[110].

- **Government integration:** In addition to the MNRT (FBD), IFM in Tanzania should be formally linked to all relevant parts of government, either in the hosting arrangement or through the delivery of specific IFM outputs. Other relevant parts of government include the PMO-RALG, Vice President's Office (Division of the Environment), Ministry of Finance, PCB and Office of the Attorney General.

- **Independence:** At the same time as having formal integration with different parts of government, certain pre-requisites are required for IFM to gain sufficient independence, including unrestricted access to relevant information, freedom to visit all types of forest and points along the timber trade chain, the right to publish objective evidence, and shared ownership of results.

- **Civil society:** Whilst IFM is designed to complement existing government-led forest monitoring arrangements, ensuring long-term sustainability of non-government actors' input into forest monitoring and good governance would be enhanced through the formalised involvement of locally-based civil society organisations. It is important that

[109] IFM has the potential to facilitate monitoring and oversight through the mechanisms described in chapter 10.2.1).

[110] The same recommendations have also arisen following reviews of independent observer projects in Cambodia and Cameroon from the perspective of forest law enforcement and rural livelihoods (Colchester *et al*., 2005).

civil society involvement brings representation at national, district and village levels since corruption in the forestry sector is not limited to any one level of government.

• **Information dissemination:** Appropriate linkages with existing means of information dissemination should be forged, such as private sector associations, government reform programmes (e.g. Public Sector Reform Programme and Local Government Reform Programme), media, relevant internet websites (e.g. REPOA governance notice board) and civil society fora (e.g. Policy Forum).

10.3 Human resources management

Reducing the *opportunities* for corruption and other governance shortfalls is one important strategy. Equally important in promoting good governance, however, is reducing the *inclination* for corruption which can manifest itself through low moral values and motivation. A fundamental issue is one of capacity, with staff and skills deficits at all levels repeatedly reported within government and other stakeholders during the past decade. Complimentary strategies are required to address both capacity and other aspects of human resource management; polarised approaches are unlikely to help much. For example, increasing the numbers of forest officers will not necessarily improve work output without efforts to provide extra motivation. Similarly, efforts to boost moral values and motivation will have limited impact in the face of massive multi-tasking faced by some forest officers.

Some notable improvements have been made with respect to human resources management in the past few years at various levels. The following recommendations aim to build on those provisions.

10.3.1 Reducing multitasking and deficits in forest officers

One limiting factor commonly reported as preventing the outsourcing of certain management functions such as revenue collection is the perceived lack of capacity amongst service providers. Therein lies the irony – limited capacity within both public (e.g. natural resource management) and private (e.g. service providers) sectors is impeding the development of a lasting solution to excessive multitasking. It is therefore recommended that the government develop a systematic plan to address this issue, with actions that include a review of current staff responsibilities and outsourcing options.

Greater investment in staffing and equipment is still urgently required within the forestry sector at all levels, following many years of declining recruitment and investment by the government. Irrespective of whether certain functions are outsourced (e.g. revenue collection), it appears that greater commitment on the part of central government is required to increase the forest sector payroll on the clear justification that

related costs will be offset by increased revenues (due to greater capacity to ensure compliance, and less likelihood of corruption and wasteful expenditures). In addition to the rotation of forestry and checkpoint staff, the following staffing levels are recommended at district, regional and national levels.

- **District level:** Every district should have a minimum of three forest officers[111], with clear division of labour to prevent multi-tasking, conflicts of duties and inadequate supervision.

- **Regional level:** The re-establishment of a regional advisor to the MNRT is required to ensure more effective oversight and co-ordination between local and central government. Probably the most cost-effective method to achieve this is to have the same officer covering forestry, wildlife and fisheries sectors.

- **National level:** At the Ministerial level, there remains a shortage of essential skills, such as an economist to model forest resource management in line with global market realities.

10.3.2 Improving moral values

The apparent erosion of moral values is affecting efforts to address illegal activities and corruption in the forestry sector. For example, prevailing attitudes in many rural areas regard harvesting and trade in timber products in contravention to the forest legislation as an insignificant illegal activity. As another example, personal involvement and collusion involving forest officials at the expense of equitable and sustainable forestry management, have become a widespread and seemingly accepted occurrence. A number of approaches can help to improve moral values of public officials involved with timber businesses or exerting undue influence on timber trade management.

- **Leadership messaging:** The delivery of strong messages from senior levels of leadership – starting with the Head of State – denouncing internal involvement and collusion in timber trade, would help to restore moral values. Justification would be on the basis that current dynamics are undermining NSGRP. In the case of public officials, leadership should provide deadlines to break any existing, unhealthy linkages with timber businesses.

- **Discipline:** Punishment of all public officials involved in corrupt activities or having unhealthy linkages with the timber industry would inevitably result in a staffing void at various levels of government, arguably making the situation worse (since fewer staff would reduce work effectiveness and increase opportunities for corruption). At the same time, remarkably few public officials, especially at district and village levels, have

[111] A minimum of four forest officers per district would be required if revenue collection is not outsourced.

received disciplinary action. An example made of a few public officials through disciplinary action would probably send a strong message to discourage corrupt behaviour.

• **Campaign:** As mentioned above, a campaign on anti-forest-corruption using various media formats would help to raise the profile of forestry governance and related moral issues.

10.3.3 Enhancing motivation

A systemic challenge to overcome in the forestry sector is the insufficient incentives to attract the next generation of foresters. Remuneration packages and working conditions are amongst the two most important factors contributing towards good motivation (other factors include job satisfaction, geographic placement and career development prospects). In addition, the protracted local government and forest sector reforms that started in the early 1990s led to a sense of insecurity concerning the future employment for some forest staff, creating an environment conducive for corruption.

• **Remuneration packages:** Almost all stakeholders report low remuneration as a primary reason for low motivation, poor performance and limited recruitment. However, experience following the collection of large revenues from log confiscations shows that remuneration for some has increased markedly in recent years, since most of this revenue was rapidly expended in further operations and exercises that involved a large percentage of payments in the form of non-taxable allowances. There are many forest officers, especially within FBD, who have benefited greatly from these allowances. The one problem with this dynamic has been the apparently repetitive cycle of field operations and allowance payments, with the acquisition of allowances seemingly driving the process with an absence of mechanisms to monitor performance and impact. The principle of financial incentives should always be promoted, but it is recommended that an alternative model be promoted whereby field (and sitting) allowance payments are reduced, but at the same time a *performance-based* incentive scheme be introduced to reward those who perform well. It should be remembered that increasing remuneration may also help to reduce corruption, although not in isolation of other interventions.

• **Working conditions:** The working conditions for licensing officers should be upgraded in major offices (e.g. Kibiti) to include the provision of lighting, computer equipment, basic tools and sufficient operational budgets. It is also recommended that at a very minimum, every forest officer should have access to a motorbike, with at least two vehicles in each district (unless there are no planned logging activities). All licensing offices and checkpoint facilities should also have working communications.

10.4 Economic returns

Financial losses from timber trade can occur due to under-collection, under-valuation and wastage. In addition to capacity-related constraints affecting low revenue collection rates, the collusion of public sector revenue collectors with tax payers is a major obstacle ('principal-agent-corruption'). Unfortunately, whilst the factors affecting the low rates of revenue collection have been analysed on several occasions in the past, tangible impacts of management interventions have yet to be witnessed. It is believed that there is little new in the following recommendations; what is really required is committed action towards implementing a series of actions to greatly enhance the broad-based economic contribution of forestry.

10.4.1 Outsourcing forestry revenue collection

Numerous terms are used to describe the outsourcing of revenue collection functions, including privatisation, franchises, concessions and agents. The outsourcing of revenue collection has been promoted by analysts of tax compliance, both within and outside MNRT, as a means to increase revenue, address corruption, and reduce organisational complexity and bureaucracy. Given the limited progress to increase revenues using other means, and restricted capacity at all levels, it is recommended that FBD/TFS now embark on an initiative to outsource forestry revenue collection. This should be conducted in a step-wise manner, starting with perhaps four selected districts.

MNRT should learn from the experience gained in other parts of the country and address the following two cautions: (i) remittance from the agent to government may fall short of contractual obligations, highlighting the need to specify consequences of underpayment in contracts and ensure decisive action on breach of contract; and (ii) the allocation of concessions itself may be open to corruption (as many default on contractual payments). Further, it is recommended that at least initially, forestry revenue collection agents are provided with tax dispensations to increase incentives for meeting contractual requirements as well as helping ensure a financially viable enterprise.

Credit: Simon Milledge/TRAFFIC

Wood carving

10.4.2 Adding value to timber products

Whilst numerous studies and government policies heavily promote value-adding schemes as a means to maximise the benefits from trade and compete on global markets, related efforts in the forestry sector have only started to occur in recent times. Most notably, the ban on raw log exports is primarily intended to promote domestic value-added production for timber, thereby increasing profits. In addition to the problem of smuggling, two challenges remain with this philosophy.

Credit: Simon Milledge/TRAFFIC

Domestic use of offcuts

- **Creating incentives:** There is a need to address the opposing economic forces in some importing countries, which can act as disincentives to comply with Tanzanian regulations. For example, China, the fastest growing market for timber, has removed import tariffs on round wood, thereby increasing the potential profits by dealing in logs. One method would be to offer more attractive incentives to encourage value-added processing before export (e.g. tax incentives or credit facilities), especially for potential Tanzanian investors.

- **Long-term plan:** More importantly, whilst the *Forest Act of 2002* was an important first step towards reducing the export of unprocessed timber, there lacks a longer-term, strategic plan on how further value-addition will be realised. As a result, investment in timber processing within Tanzania is relatively *ad hoc* and lacks coordination. It is recommended that a strategic planning exercise be undertaken to establish mid-term and long-term goals that will increase, in a step-wise manner, domestic value-addition to a range of commercially viable products whilst at the same time preserving more traditional timber industries (see also chapter 10.7.1).

10.4.3 Increasing timber revenues amongst rural households

Although local politicians commonly argue that timber harvesting could contribute towards reducing poverty, this study illustrates that much more needs to be done to ensure that the revenues reach household level. Further, wise use of these financial rewards is needed to avoid local 'boom-and-bust' cycles. As a first step, it is recommended that local level associations are established (on an experimental basis) to provide a means for district authorities and other stakeholders to deliver relevant training and support, as well as improving accountability.

10.5 Compliance controls

Regarding compliance and regulation, this report strongly recommends efforts to strengthen the efficiency of *existing* instruments (by making better use of existing capacity) and only introduce additional regulatory measures if absolutely necessary to address a well-documented and specific issue.

10.5.1 National-level chain of custody

One significant challenge faced by government authorities tasked with monitoring compliance in timber trade is to determine *legality*. Aside from the lack of a clear definition, the main difficulty arises when illegally-sourced logs and timber products can be mixed with those of legal origin with relative ease. Improved mechanisms for managing the wood supply chain, especially from the forest to first processing facility, are therefore required to prevent the laundering of logs as well as providing useful information to forest managers. So-called 'chain of custody' systems are increasingly being promoted for the benefit of many players (Table 68).

Table 68

Potential uses of chain of custody information

Beneficiary	Description of benefits
Forest managers	Adjusting silvicultural activities and harvesting plans
Enforcement agencies	Control of illegal trade and ensuring collection of royalties
Timber companies	Improving efficiency of wood supply chain, and preventing fraud and theft
Timber importers	Ensuring timber supplies derived from legal sources
Certifiers, inspectors	Facilitating audit or inspection functions
Consumers	Assuring products have been sourced from legally and well-managed forests

Source: Dykstra *et al.* (2002).

• **Wood tracking:** It is recommended that a *wood tracking technology* is tested on a trial basis as a means to strengthen chain of custody for timber in trade. Amongst other measures, effective wood tracking requires a way to individually identify each log in trade. Hammer branding, the current method of labelling logs in Tanzania, has the main disadvantage of being easily forged. Further, it is used in Tanzania to identify logs to district level, not to an individual log basis. Whilst no one wood labelling technique is ideal (most secure techniques are prohibitively costly, and vice versa), experimentation with bar-coded plastic labels is recommended.[112]

[112] In a review of wood tracking technologies, Dykstra *et al.* (2002) recommended use of bar-coded plastic labels due to their relatively low cost and difficulty to counterfeit when compared to lower-technology labels.

• **Secure documentation**: Increasing levels of fraud involving harvest licences, transit passes and export documentation in particular, has increased the need to improve the security on official documentation. Examples do exist of other government institutions modifying official documentation to prevent fraud (e.g. TRA). Similar experiences within the wildlife sector during the 1980s and early 1990s lead to the adoption of more secure CITES permits, which use a combination of watermarked paper, security sticker and stamp. Costs are offset by charging the private sector a nominal permit fee. A similar approach is recommended to replace all existing documentation for harvesting, transport and export of timber products. More secure documentation is required before the introduction of wood tracking technologies.

• **Certification:** Pending the success of introducing wood tracking technology, the chance of certification of indigenous forests (and other standards) becoming a reality in Tanzania would become one step closer. The recently-formed national certification group should take the leading role in pursuing the above recommendations to enhance national chain-of-custody.

10.5.2 International measures

• **CITES:** The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) holds potential in helping to monitor logs and timber of specified species in international trade. Basically, CITES establishes a recognised, international legal framework and procedural mechanisms that all Parties are obliged to follow. International trade is regulated through a system of permits that must be presented when entering or exiting a country. The conditions for issuing permits depend on various provisions, including in which of three appendices[113] the species is listed. All transactions are reported annually in a standardised manner, allowing the matching of import, export and re-export data.

Contrary to popular belief, listing a species on CITES does not necessarily ban it from international trade. The majority of CITES-listed species are still traded commercially with the added benefit of improved monitoring and regulatory controls (e.g. reinforcing national legislation) that CITES provisions offer. A number of potential advantages for listing certain timber species on CITES is given in Table 69.

[113] Appendix I includes species threatened with extinction which are or may be affected by international trade (commercial international trade is not allowed for Appendix I species);

Appendix II includes covers species not necessarily threatened with extinction at the moment, but which may become so unless trade is controlled; and

Appendix III includes species protected in one country where that country has asked other CITES Parties for assistance in controlling trade.

It is recommended that Tanzania explore CITES-listing for selected timber species traded internationally as a means to help ensure sustainable trade and chain of custody. Further, almost all of the countries identified as major importers of Tanzanian timber are CITES Parties. The listing of other tropical timber species on the CITES Appendices has ensured the assistance from other CITES Parties in monitoring and controlling trade[114]. Species to be considered for CITES listing by Tanzania may include sandalwood, *Dalbergia melanoxylon, Millettia stuhlmannii*, *Swartzia madagasariensis* and *Pterocarpus angolensis.*

Table 69

Some advantages of CITES for tracking timber specimens in international trade

Advantages
Standardised system of issuing and screening permits with compulsory controls on export and import
Inclusive of most major trading nations (169 Parties in October 2006)
Complements other identification measures (e.g. labelling)
Complements other monitoring systems (e.g. chain of custody, certification and customs controls)
Emphasis on individual species facilitates monitoring and enforcement
Long history of implementation (since 1976), helping to ensure workable provisions
Existing collaboration with agencies involved (e.g. customs, management and scientific authorities)
Transparent national reporting and review processes to facilitate scientific and compliance monitoring

Source: Keong (2002).

10.5.3 Strengthening surveillance efficiency

Given limited capacity, there are several possible means to facilitate compliance monitoring through restricting the number of 'nodes' along the trade chain, thereby helping to focus effort. It must, of course, be assured that this does not result in disincentives to the private sector.

• **Logging seasons:** One way to focus limited staff and financial resources in effectively managing timber trade is to reintroduce[115] specific seasons for logging. During such a logging season, all efforts would be focussed on monitoring compliance with relevant logging and transport protocols. During the 'closed' logging season, efforts would shift towards other important management activities, such as forest inventories, marking of trees for harvest and processing plant inspections. A similar approach is applied to the hunting industry, with the hunting season running from July to December each year. It

[114] For example, Big-leafed Mahogany *Swietenia macrophylla*, Afromosia *Pericopsis elata* and African Cherry *Prunus africana*.

[115] Logging seasons used to be implemented in Tabora, Rukwa and Singida Regions during the 1990s.

is recommended that a feasibility study is conducted to assess the pros and cons of different scenarios, making sure to incorporate private sector perceptions.

- **Licencees:** In line with district harvest plans, it is recommended that an upper limit of three large companies be licenced per district, with each individual licence limited to large volumes (e.g. minimum 20 m^3). This will help restrict the number of applicants and therefore ease administration as well as facilitate compliance and monitoring. At the same time, the requests of known local businessmen trading in smaller quantities should be accommodated where justified.

- **Road checkpoints:** Excessive checkpoints not only delays traders but also add layers of unnecessary bureaucracy and opportunities for corruption. With respect to surveillance, it can also be argued that concentrating efforts to man a few key checkpoints may be more effective than the current scenario whereby a truck loaded with logs in Lindi Region may pass through up to eight checkpoints before reaching Dar es Salaam. Indeed, evidence clearly suggests that the large number of checkpoints does not result in improved compliance and revenue collection. It is advisable to greatly reduce the number of road checkpoints and instead focus more resources to those remaining.

- **Designated yards:** In the same way that other export products (e.g. copper) have designated yards for loading and packing prior to shipment, restricting the overall number of yards for timber would again ease monitoring by relevant forestry officers. Currently, there are too many yards to monitor efficiently given the number of staff. It is recommended that the number of yards in Dar es Salaam be restricted to a maximum of four.

- **Ports of exit:** The current limitation for timber exports to move through Dar es Salaam port should be maintained for mainland Tanzania in the medium-term, again as a means to facilitate monitoring prior to shipment.

- **National compliance:** Additional resources should be allocated to the national compliance unit operating from MNRT to allow it effectively monitor and investigate nationwide. Further, it should be ensured that surveillance and licensing activities be undertaken by staff falling under different directorates under the proposed TFS, with surveillance linked directly to the Chief Executive Officer.

10.5.4 Training

Forest officers and relevant port officials require training in timber identification (including debarked and processed products), collection and presentation of evidence, to help improve the success rates of investigations and prosecutions.

10.6 Incentive-driven approaches

In the context of promoting good governance, incentive-driven approaches are as important as the kind of regulatory measures described above. Incentive-driven approaches tend to favour the private sector, often aiming to promote active engagement, positive compliance and greater economic returns. The following recommendations outline some ideas to reduce hurdles and disincentives affecting the private sector.

10.6.1 Reducing bureaucratic obstacles

Bureaucratic impediments are one of the main reasons prompting timber traders to bypass officially required processes and engage in corruption.

- **Clear investment and business guidelines:** As mentioned earlier (chapter 10.2.3), the publication of, and easy access to, the precise steps to be followed by a private investor, clear criteria for how applications are assessed, timeframes for each stage of the process, and defined roles and responsibilities for public officials tasked with processing applications, would greatly assist the private sector in better understanding requirements and process, and facilitating their own planning and follow up.

- **Reducing bureaucratic steps:** Whilst vigilance on the part of government will always be required, a reduction in the number of interactions between public and private sector players would help streamline timber trade. For example, a reduction in the number of checkpoints (see chapter 10.5.3) would reduce administration and provide fewer opportunities for corrupt interactions and bureaucratic delays. Similarly, harvest licences valid for longer periods and for larger quantities of timber would present fewer obstacles to running a profitable business.

- **Export certificate expiry:** One of the problems experienced with export certificates with reduced validity period is that genuine logistical reasons sometimes preclude making a shipment. For example, by the time a certificate is obtained there may be no space left on the carrier ship, since bookings cannot be made without this official permission. On the other hand, when space becomes available the licence may have ironically already expired. It is recommended that MNRT explore the possibility of interpreting the date of certificate expiry as the deadline for completing inspection and sealing instead of the actual export date.

10.6.2 Introducing industry standards

In some parts of world (e.g. Western Europe), there is increasing conditionality amongst consumers regarding the acceptability of wood sourced from elsewhere. As a result, growing numbers of players in the timber industry are reviewing their own corporate

responsibilities, a balance of economic (e.g. financial growth, employment opportunities, shareholder value, wider socioeconomic impacts on society), environmental (e.g. minimizing negative environmental impacts) and social (e.g. human rights, ethical business practices, community involvement) issues and standards. Whilst investments in time and money are needed to incorporate such standards, many companies are now realising the benefits in terms of reaching more lucrative markets and assuring longer-term (sustainable) sources of timber supplies.

Unfortunately, Tanzanian indigenous timber exports are barely ecologically, legally or socially acceptable in many export markets. To date, this has been largely irrelevant since most consumers in major importing markets (such as China) do not demand such strict standards. The future survival of the timber industry will invariably require the introduction of industry standards, recognised at both national and international levels.

• **Voluntary codes of conduct:** As a first step, it is recommended for timber companies (and the main associations) to be facilitated in developing voluntary codes of conduct based on generic 'best practices' code of conduct for private investment in the timber industry. These standards would provide a basis for assessing levels of compliance, and negotiation of the standards would provide an entry point for greater linkages between the private sector and other stakholders. In return, companies abiding by voluntary codes of conduct (or any other standards for that matter) should be promoted and praised.

• **Bilateral linkages:** There is a need for the major timber importing countries to better understand some of the realities and governance issues being faced in Tanzania, in particular the impact that limited checks and balances on the importing side may ultimately have on national development prospects. There may be opportunities for bilateral cooperation with countries like China. Indeed, the following areas of technical and financial assistance were identified by the State Forestry Administration, China, and Embassy of Tanzania in Beijing during a meeting in September 2006:

> ***Sustainable forest management:*** Experience gained in China would benefit Tanzania in the form of technical expertise in setting and managing sustainable yield programmes. Despite recent management investment (e.g. forest inventories, revised harvest management plans, increased management capacity), unsustainable timber harvesting remains a serious threat to long-term, bilateral trade opportunities and thus requires joint initiatives to readdress the balance.
>
> ***Community participation and empowerment:*** In line with national development strategies and enabling forest sector policies/legislation, a great opportunity exists to further empower local communities to manage and benefit from forest management, including timber trade. Experience has been gained from numerous pilot approaches in Tanzania, and a commitment to further resources

is now required to expand workable practices to a wider area and allow forest product trade to contribute to national development and livelihood improvement in a meaningful way.

Private sector standards: Tanzania could benefit from the successful approach being taken by the China Forest Trade Network (CFTN), which currently comprises eight companies, as part of the Global Forest Trade Network (GFTN). Specifically, the establishment of at least one responsible company in Tanzania, perhaps a branch of an existing member of CFTN, would help provide linkages between recognized, responsible importers and legally-sourced timber from Tanzania. Further incentives for responsible forestry would come in the form of improved professional standards in general.

Value-addition schemes: Currently, little value-adding to timber products takes place within Tanzania, resulting in lost potential revenues from both job creation and product sales. A step-wise approach is recommended to adding value to timber products, and a clear opportunity therefore exists for initiating limited processing capacity within Tanzania with investment from selected Chinese timber processing companies that possess the required skills base.

10.7 Forest management

10.7.1 Harmonisation of goals and roles

The last three years has witnessed a positive transformation in terms of logical planning. For example, attempts have been made to ensure logging levels are based upon forest harvest plans, which are derived from forest inventories. As another example, assessments of processing capacity have been used to justify ongoing restrictions to unprocessed log exports. Whilst the forestry sector does have an overarching implementation document, the *National Forest Programme*, an important missing element is a strategy specific to timber product trade. The absence of shared, long-term goals can result in short-term decisions tending towards a selfish focus rather than a national development interest.

- **Shared long-term goals:** The importance of a coherent, long-term strategy for logging and timber trade lies in the fact that these activities provide the primary means of ensuring direct financial benefits from forests, both at national and local levels. However, financial benefits fall way short of their potential, and incremental changes are required to enable Tanzania not only to make greater profits in the future (e.g. through establishment of processing and manufacturing facilities to add value to timber products), but also to become a competitor on the global market. For example, there is no reason why Tanzania cannot become an exporter of high quality furniture, veneer

products and flooring in the future; the challenge is for primary decision-makers to agree a set of shared goals, and establish milestones to reach such goals. It is therefore recommended that a strategic planning exercise is held to ensure long-term viability of forests and woodlands and their role in national development. Core to this exercise is ensuring forest management commitments at local levels are built into land use planning.

• **Dual ministry harmonisation:** The challenges of ensuring harmonisation of roles, priorities and linkages between the MNRT, and the PMO-RALG continue to plague forest management. This unfortunate scenario has affected efficient planning, revenue collection, compliance and disciplinary action amongst other issues. Experience gained during 2003 and 2004 showed how decentralization – greater devolution of forest management responsibilities to district level – did not prevent large-scale, uncontrolled timber harvesting and trade. Conflicts of interest and competition between the two levels of government still remains one of the most important issues to resolve, despite the recommendations arising from both government and external stakeholders over many years. This issue needs to be addressed at high level within the two ministries, with a circular produced by the Permanent Secretaries. In the longer-term, many stakeholders believe the equivalent of a Memorandum of Understanding between the two ministries would also be useful to clarify roles and responsibilities, whilst combined involvement in the above-mentioned strategic planning exercise would help achieve some shared goals. The overdue Forest Advisory Committee also needs to be set-up as soon as possible, as a means to improve cross-sectoral co-ordination and consultation. It is further recommended that DFOs report directly to the Head of FBD/TFS in future as a step towards improving linkages between district government and MNRT.

10.7.2 Sustainable yield forest management

Recent assessments of timber stocks and processing capacity, followed by the preparation of management and harvest plans, are very positive initial steps towards realising professional standards of sustainable yield forest management. As part of the learning process, a number of issues have become apparent.

• **Review of forest survey methodologies:** Concern over the levels of accuracy of the recent FBD inventories raises the need to ensure more attention is paid in future to recording confidence limits (as required by professional forestry standards), thereby ensuring that sampling intensity is sufficient not only in terms of area covered (or number of trees), but also in terms of stratified land cover classes. In addition, the need for cost-effective methods to assess standing stocks is important to ensure inventories can be repeated at sufficiently regular intervals, as well as reducing donor dependence. Rapid stock assessments conducted in Kilwa District by the Mpingo Conservation

Project showed a five-fold cost-efficiency gain (in terms of area covered per unit investment of manpower) when compared to the national inventory surveys conducted in 2005 by FBD (Ball *et al.*, 2006). It is therefore recommended to hold a seminar to discuss and assess appropriate methodologies for conducting inventories in the future, ensuring the inclusion of all stakeholders with expertise in this field.

Credit: Antje Ahrends

Coastal forest in southern Tanzania

• **PFM forest surveys:** Current methods for PFM stock assessments tend to cover all timber species, whilst the main added value of PFM is often derived from trading commercial timber species. It is recommended to increase the focus on commercial timber species during participatory forest resource assessments.

10.7.3 Participatory Forest Management

By drawing communities into the sphere of legitimate forest use and generation of information regarding forest status and levels of benefits, PFM can theoretically help create a more transparent environment for forest exploitation, conservation and protection. This in turn can have a wider impact on forest governance. Unfortunately, despite the growing momentum to expand PFM nationwide in the context of some emerging success stories, the devolution of forest control and management from government to village level in southern Tanzania has proved relatively slow and costly. In the absence of realizing these benefits (e.g. long delays in finalizing revenue sharing mechanisms), it is clear that some villages in southern Tanzania defied PFM initiatives to make quick profits from short-term timber trade opportunities, thereby casting doubt over their long-term deep belief in the PFM paradigm. A few key actions, however, will certainly help to reverse this situation.

• **Awareness-raising:** Most rural communities in southern Tanzania remain ignorant of the options for empowerment under the revised *Forest Policy of 1998, Forest Act of 2002* and *National Forest Programme*. This is one major limiting factor preventing communities buying into PFM and forest management initiatives in general. A community awareness programme that consolidates all stakeholder inputs needs to be initiated in southern Tanzania to ensure village communities fully understand the different forms of community participation, true value of timber resources, rights and potential community benefits (e.g. empowerment, financial returns and reduced vulnerability), risks and responsibilities involved, and the legal procedures for achieving community participation.

• **Complete PFM arrangements:** Using available guidelines on PFM, it is important for all stakeholders to now work in *unison* to expedite ongoing PFM processes and enable village communities to gain formal ownership and empowerment of their forest resources. It is important for MNRT to engage with PMO-RALG in order to create incentives for sustainable forestry in local government forest activities. Lastly, future donor-funded PFM initiatives should strive to ensure ten-year funding commitments.

• **Timber trade:** Village environmental committees need to be educated and co-ordinated in harvest licence issuance, including the screening of potential private investors. Ideally, this should be the role of a forest assistant based in each division/ward. Further, village communities require training in tree selection, cutting, transporting and basic processing of round wood, to reduce unnecessary wastage. FBD should review the application of national harvest bans in PFM areas to ensure there is no breach of PFM agreement and potential for conflict. The Director of FBD should also explore the possibility of designated villagers (proven responsible) as Forest Officers, as provided in the *Forest Act of 2002*, as a means to build local ownership.

• **Livelihood alternatives:** Forestry officers should continue to work with other sectors to encourage awareness and creation of alternative livelihood opportunities, thereby reducing individuals' dependence on timber trade. This may include enhancing existing agricultural practices, e.g. improved cashew management and fire management.

10.7.4 Forest sector institutional reforms

Whilst reforms in the forest sector were initiated in the early 1990s, restructuring at national, regional and district levels have yet to be concluded. This indeterminate state has reportedly contributed towards greater laxity and corruption. The current review of the *National Forest Programme* (NFP) provides the opportunity to ensure that policy interventions and strategy development take into account contemporary issues that may not have been so prevelant back in the early 1990s when the NFP was first developed. For example, timber market globalisation, diversification of trade routes and growing availability of wood substitutes are issues to be addressed in this regard.

- **NFP review:** It is recommended that the current NFP review addresses the relatively low priority rating given to the programme, *Forest-based Industry and Products*.
- **Longer-term private sector involvement:** Future policy directions to shape forest management interventions should place a greater focus on the longer-term outlook for timber trade markets, both local and international. In particular, a systematic strategy is required to facilitate the development of the private sector and thus reverse the opportunistic nature of private sector involvement.

- **Alternatives and consumer choice:** Forest sector policy reforms should also place a greater focus on the longer-term outlook for timber product markets and consumer choice. As an example, the growing availability and preference for potential substitutes to tropical hardwoods need to be taken into account. In this regard, it is recommended that domestic markets be provided with incentives to use alternatives such as steel and softwood. Future iterations of the NFP should also develop clear strategies to specifically build domestic capacity for adding value to hardwood products targeting export markets (e.g. veneer). At the same time, strategies are required to maintain traditional hardwood product markets, both local and international.
- **Duplication of positions and beekeeping:** FBD is currently implementing two policies as well as two respective national strategies – forestry and beekeeping. It is apparent that unnecessary duplication in some positions has arisen and signficant resources used to implement the two policies independently. Further, some beekeeping positions are underutilized and, in some cases, have been reassigned forest responsibilities. The MNRT needs to review FBD functions and specifically establish which functions should reside within FBD and which would be better housed within other sectors. For example, it is arguably inappropriate that the limited numbers of forest officers promote agroforestry when this function could perhaps be better implemented by the agricultural sector. The same review should be applied to other functions, including revenue collection (e.g. perhaps the Tanzania Revenue Authority would be better suited).
- **Tanzania Forest Service:** The proposed creation of TFS brings an additional layer of decision-making to timber harvesting and trade. However, lines of reporting and division of duties remain unclear. Indeed, stakeholders felt there has been a general lack of clarity on the establishment of TFS including the process by which transition from FBD to TFS will occur – and need to be established in an expedient manner incorporating inputs from different sectors. It is recommended that the MNRT address this issue at senior levels.

10.7.5 Mitigating negative impacts of infrastructure development

Ensuring ongoing improvements to road infrastructure nationwide whilst minimizing the negative impacts on forests following increased accessibility remains an unresolved challenge. It is recommended that MNRT develop closer linkages with the Ministry of Communications and Transport to help ensure planned infrastructure developments are known well in advance and appropriate mitigation measures (e.g. forest resource assessments, staffing relocations, initiation of checkpoints) put in place.

Table 70

Summary of recommendations and priority rating

Issue	Required action	Priority
Accountability	**Strengthening answerability within MNRT**	
MNRT information has gaps, questionable accuracy and not always subjected to scrutiny by senior management, a situation that can provide a cover for a number of different, irregular actions to go unnoticed.	Standardized reporting mechanism, to include monthly summary reports from important stages of trade chain to FBD/TFS, and monthly analysis by management according to source forest, trader and quantity.	High
	Systematic, ad hoc and targeted inspections.	Medium
	Audits with focus on remittance systems, expenditure choices.	Medium
	National task force to focus on implementation of the AFLEG *Indicative List of Actions*.	Medium
Accountability	**Wider government involvement in forestry governance issues**	
Low participation of some stakeholders in governance issues, especially parts of government dealing with financial integrity, politics, corruption and ethics.	Internal disclosure of forestry sector assets and wealth by public officials within MNRT and, at a higher level, all members of the Executive.	High
	PNREC facilitated to produce an action plan for overseeing developments within the forestry sector.	Low
	Seminar held to raise awareness amongst relevant stakeholders regarding corruption in the forestry sector.	Medium
	Greater emphasis on forestry during public income and expenditure reviews.	High
Zanzibar increasingly a staging post for shipping timber from mainland to overseas destinations.	Harmonisation of export policies between mainland Tanzania and Zanzibar.	High
Non-competitive forestry sector appointments.	Extra scrutiny to ensure competitive and competent forestry sector appointments	Medium
Limited harmonization and cohesive action amongst development partners, as a basis for greater external accountability.	DPG to develop and communicate a common position regarding forestry governance issues to the Tanzanian government.	Medium
Accountability	**Promoting transparency and knowledge sharing**	
Low transparency of information and decisions increases the risk of bureaucratic corruption.	Use public notice boards at village and district levels (e.g. outcomes of applications, actual timber trade, financial summaries and infractions.	High
	District timber harvesting plans, based on forest inventories, should be made publicly available.	Medium
	Revise and publicise private sector guidelines for harvesting, processing and exporting timber products, including criteria, timeframes and roles.	High
Annual meetings debate issues of public interest but have limited civil society involvement.	Public-private sector meetings also involve civil society.	Low
Underutilized media.	Raise the profile of issues linking timber trade and poverty alleviation, and other relevant developments.	Medium

Issue	Required action	Priority
Generally low profile and wrong perceptions of forestry governance issues in the country.	Targeted campaign on anti-forest-corruption using advertisements in all formats (television, radio and print).	High
Low awareness amongst civil society of socio-political factors affecting governance and limited private sector involvement.	Non-governmental players working in the forestry sector to link with broader civil society groupings to share capacity.	Medium
Many villagers in southern Tanzania do not consider activities in contravention of forest legislation a serious illegal activity.	MNRT consider a well-implemented communication strategy to address such attitudes.	Medium
Accountability	**Independent forest monitoring**	
Government monitoring of forest activities sometimes inaccurate or biased.	Development of an independent forest monitoring capacity that has a strong development focus.	Medium
HR management	**Reducing multitasking and deficits in forest officers**	
Perceived lack of capacity amongst service providers.	Develop plan and review current staff responsibilities and outsourcing.	Medium
Declining recruitment and investment by the government.	Greater investment in staffing and equipment at all levels of forestry sector.	Medium
HR management	**Improving moral values**	
Apparent erosion of moral values is affecting efforts to address illegal activities and corruption in the forestry sector.	Delivery of strong messages from senior levels of leadership denouncing internal involvement and collusion in timber trade.	High
	Make example of a few public officials where warranted - disciplinary action.	Medium
HR management	**Enhancing motivation**	
Insufficient incentives to attract the next generation of foresters, and lack of confidence for some forest staff.	Introduction of a *performance-based* incentive scheme.	High
	Upgrade working conditions for major licensing offices. Forest officers to have transport.	Medium
Financial returns	**Outsourcing forestry revenue collection**	
Limited progress to increase revenues using various means, and limited capacity at all levels.	Outsource forestry revenue collection in a step-wise manner, starting with perhaps four selected districts.	High
Financial returns	**Adding value to timber products**	
Opposing economic forces in some importing countries, which can act as disincentives to comply with domestic regulations.	Offer more attractive incentives to encourage value-added processing before export (e.g. tax incentives, credit facilities), especially for Tanzanians.	Medium
Longer-term, strategic plan lacking on how further value-addition will be realised.	Strategic planning exercise to set goals that will increase, in a step-wise manner, domestic value-addition to a range of commercially viable products.	Medium

Issue	Required action	Priority
Financial returns	**Increasing timber revenues amongst rural households**	
Low revenues reach household level and unwise use of financial rewards results in local 'boom-and-bust' cycles.	Establish local associations to provide the means for district authorities and other stakeholders to provide relevant training/support.	Medium
Compliance controls	**National-level chain of custody**	
Relative ease at which logs are laundered.	Implementation of wood tracking technology on a trial basis.	Medium
	Adopt secure documentation for harvesting, transport and export of timber products.	Medium
	Pursue certification of selected indigenous forests.	Low
Compliance controls	**International controls**	
Large discrepancies in international trade statistics and illegal trade.	Explore CITES-listing for selected timber species traded internationally as a means to help ensure sustainable trade and chain of custody.	Low
Compliance controls	**Strengthening surveillance efficiency**	
Limited staff and financial resources to effectively manage timber trade.	Conduct feasibility study to assess the pros and cons of various closed season scenarios	Low
Excessive numbers of traders complicate administration, compliance and monitoring.	Limit to three large companies licenced per district, with each individual licence limited to large volumes.	Medium
Excessive checkpoints delays traders and provide opportunities for corruption.	Reduce the number of road checkpoints and instead focus more resources to those remaining.	Low
Limited staff and financial resources affect monitoring prior to shipment.	Restrict number of yards for packing timber to four in Dar es Salaam.	Medium
	Continue to limit timber exports to move through Dar es Salaam port.	Medium
Compliance controls	**Training**	
Reportedly low success rates of investigations and prosecutions.	Training in timber identification, collection and presentation of evidence	Low
Incentive approaches	**Reducing bureaucratic obstacles**	
Bureaucratic impediments are one of the main reasons prompting timber traders to bypass officially required processes and engage in corruption	Publication of, and easy access to, clear investment and business guidelines.	High
	Reduce bureaucratic steps by making harvest licences valid for longer periods and for larger quantities of timber.	Medium
Genuine logistical reasons sometimes preclude making a shipment due to reduced validity period on export certificates.	Explore the possibility of interpreting the date of certificate expiry as the deadline for completing inspection and sealing instead of the actual export date.	Low

Issue	Required action	Priority
Incentive approaches	**Introducing industry standards**	
Tanzanian indigenous timber exports are barely ecologically, legally or socially acceptable in many export markets.	Facilitate timber companies in developing voluntary codes of conduct for private investment in the timber industry.	Medium
Need for the major timber importing countries to better understand some of the realities and governance issues being faced in Tanzania.	Explore bilateral technical and financial assistance in areas of sustainable forest management, community participation, private sector standards, and value-addition schemes.	Medium
Forest management	**Sustainable yield forest management**	
Concern over the levels of accuracy of the 2005 FBD inventories and need for cost-effective methods to assess standing stocks.	Seminar to discuss and assess appropriate methodologies for conducting inventories in the future. More attention in future to recording confidence limits.	High
Forest management	**Harmonisation of goals and roles**	
The absence of shared, long-term goals can result in short-term decisions tending towards a selfish focus rather than a national development interest.	Hold strategic planning exercise to ensure long-term viability of forests and woodlands and their role in national development.	Medium
Challenges of ensuring harmonisation of roles, priorities and linkages between the Ministry of Natural Resources and Tourism, and the Prime Minister's Office, Regional Administration and Local Government continues to plague forest management.	Circular or MoU produced by the Permanent Secretaries of the two ministries to clarify roles and responsibilities.	High
	Set up Forest Advisory Committee as soon as possible, as a means to improve cross-sectoral co-ordination.	Medium
	Ensure that DFOs report directly to the Head of FBD/TFS in future.	High
Forest management	**Participatory forest management**	
Devolution of forest control and management from government to village level in southern Tanzania has proved relatively slow and costly, with some villages in southern Tanzania defying PFM initiatives to make quick profits from quick timber trade opportunities.	Initiate community awareness programme - forms of community participation, true timber values, potential benefits, responsibilities, and legal procedures.	High
	Future donor-funded PFM initiatives to strive towards ten-year funding commitments.	Low
	Educate and co-ordinate village environmental committees in the screening of potential private investors.	Low
	Explore the possibility of designated villagers as Forest Officers as a means to build local ownership.	Medium
Unnecessary wastage.	Training of village communities in tree selection, cutting, transporting.	Low
Potential areas of conflict regarding PFM and timber trade.	Review the application of national harvest bans in PFM areas to ensure there is no breach of PFM agreement.	High
Forest restructuring started in early 1990s yet to be concluded, leading to greater laxity and corruption.	NFP review give higher priority rating to the component programme, *Forest-based Industry and Products*.	High

Issue	Required action	Priority
Forest management	**Forest sector institutional reforms**	
Short-term outlook on timber trade, both local and international markets, causing opportunistic nature of private sector involvement and a low focus on longer-term outlook on alternatives and consumer choice.	Clear strategies to specifically build domestic capacity for adding value to hardwood products targeting export markets.	Medium
	Domestic markets provided with incentives to use alternatives such as steel and softwood.	Low
Unnecessary duplication in staffing - implementation of two policies as well as two respective national strategies - forestry and beekeeping.	The MNRT needs to review functions to establish which functions should reside within FBD and which would be better housed within other sectors.	Medium
Lines of reporting and division of duties within TFS remain unclear and general lack of clarity on the establishment of TFS including change management process.	Establish TFS roles, responsibilities and lines of reporting in an expedient manner incorporating inputs from different sectors.	High
Forest management	**Mitigating negative impacts of infrastructure development**	
Negative impacts on forests following increased accessibility remains an unresolved issue.	Closer linkages between MNRT and MCT to help ensure infrastructure developments are known well in advance and appropriate mitigation measures put in place.	Medium

Key:

AFLEG = African Forest Law Enforcement and Governance; CITES = Convention on International Trade in Endangered Species of Wild Fauna and Flora; DFO = District Forest Officer; DPG = Tanzania Development Partners Group; FBD = Forest and Beekeeping Division; TFS = Tanzania Forest Service; MCT = Ministry of Communications and Transport; MNRT = Ministry of Natural Resources and Tourism; NFP = National Forest Programme; PFM = Participatory Forest Management; PNREC = Parliamentary Natural Resources and Environmental Committee.

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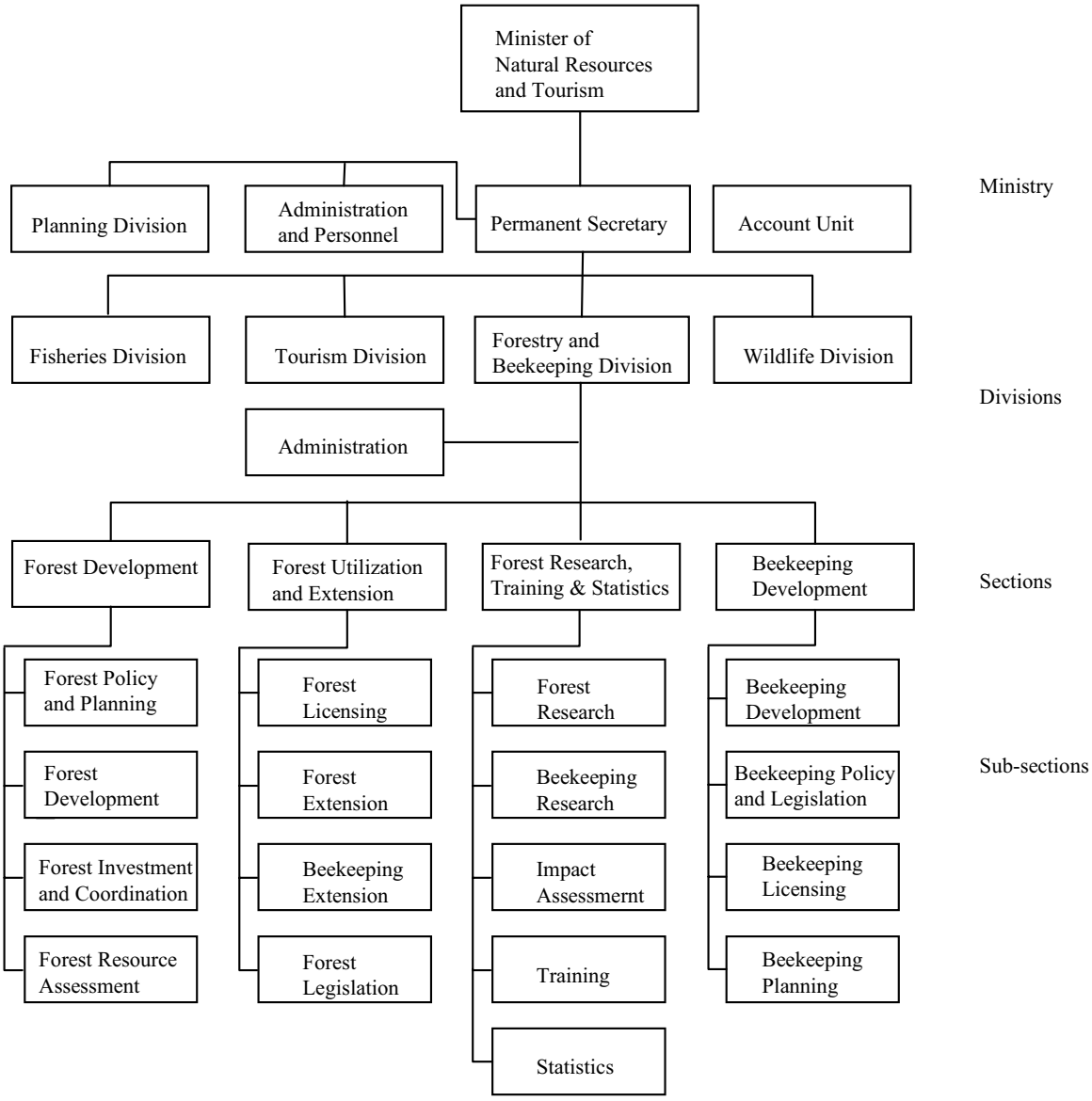
12 ANNEXES

Annex 1 Selected hardwood species names

Scientific name	Vernacular name
Acacia nigrescens	Mkambala
Afromosia angolensis	Mangangwaru
Afzelia quanzensis	Mkongo
Albizia gummifera	Mkenge
Albizia versicolor	Mtanga
Amlyogonocarpus obtusangulus	Myamakwenge
Baphia kirkii	Mkuruti
Bombax rhodognaphalon	Msufi
Combretum imberbe	Mhama
Dalbergia melanoxylon	Mpingo
Erythrophleum africanum	Mkarati
Hymenaea verrucosa	Mnangu
Julbernardia globiflora	Mtondoro
Khaya anthotheca	Mkangazi
Manilkara mochisia	Mti chuma
Milicia excelsa	Mvule
Millettia stuhlmannii	Mpangapanga
Pterocarpus angolensis	Mninga
Swartzia madagascariensis	Msekeseke
Tectona grandis	Tiki
Trichilia emetica	Mlopolopo

Annex 2 Organisational structure[116] of FBD



Source: TFCMP (2005).

[116] FBD organisational structure is supported by a *Scheme of Service* through *Circular No, 21 of 2001* (TFCMP, 2005).

Annex 3 Regulations governing timber trade

Timber harvesting

Numerous sections of the *Forest Act (2002)* apply to forest product harvest and trade. Section 26 (Part V Forest Reserves) prohibits anyone from cutting down, felling, digging up or removing any tree, wild plant or other forest produce within a national or local forest reserve without the necessary concession, licence or permit. The procedures for applying for, screening, granting and revoking such permits are specified in Section 49 of the Forest Act (2002) (Part VI Permits and Licences) and Part V of the *Forest Regulations (2004)* (Procedures and conditions for the application, grant, variation, refusal, extension or cancellation of licences, permits or certificates). Regulations covering the felling, removal and transportation of timber and other forest produce are covered in Part II of the *Forest Regulations (2004)*.

All permits must be consistent with relevant forest management plans, and specify the forest reserve, fees/royalties and other conditions. For example, conditions for timber felling include the volume, type, specification and quality of timber to be felled; for sawmills, the operational hours of the day; for forest produce exports, the quality, quantity, specification controls and exit points. The *Forest (Amendment) Regulations (2006)* stipulate that any person wishing to buy logs or timber for business, or cut and collect firewood, should obtain a licence from the Director.

Present forest regulations stipulate that the forest officer has to first go to into the forest, measure the standing or felled trees to be harvested, and mark them. Measurements taken must include the standing volume (in the case of standing trees) or log volume (felled trees). Harvestable trees must exceed the minimum girth, which is defined for each species (e.g. 75 cm for *Dalbergia melanoxylon*, 165 cm for *Afzelia quanzensis*). The harvester should then obtain a felling licence from the forest office, which indicates the harvest area, species and volume, and then return to the fell the marked trees. The use of chainsaws is prohibited. After felling at least 15 cm above ground and cross cutting, the stump should be marked with the licencee's registered property mark and stump number, whilst both ends of all logs should be marked with the property mark, tree number and log number.

The harvester is subsequently required to obtain a transit pass from the forest office in order to remove the produce. Thus, theoretically, licence fees should be charged for standing trees or felled trees, and not on logs or planks removed from the forest (e.g. in store, at landing site, or on lorry). It is an offence to remove forest produce from the harvesting area without these documents. Traders should stop at all checkpoints named on the Transit Pass for inspection (the designation of forest produce and wood product checkpoints for enforcement and monitoring purposes is given in the *Forest (Amendment) Regulations (2006)*. Traders are also expected to maintain a Forest Produce Stock Register, and to look after books and permits for any future inspections.

At the beginning of February 2004, the MNRT introduced additional licence application procedures to encourage greater involvement of local communities. Customers were required to submit timber harvest applications to village governments neighbouring the harvest area. Following approval, Village Executive Officers submitted village government minutes to the relevant DFO. The forest officer then issued a harvest licence for those approved by the village governments, providing the customer had paid all necessary fees. The customer was then required to show this licence to the respective village governments. Village governments, together with forest officers, supervised the harvesting.

Procedures for issuing licences were further modified in September 2004. Registered sawmills or traders licenced to supply logs to registered sawmills are now required to submit licence applications to the District Forest Officer or District Catchment/Conservation Forest Officers. District Harvesting Committees – to receive and assess applications – were re-established and formalised in the *Forest (Charcoal preparation, transportation and selling) regulations, 2006*. The Committees were also tasked with meeting quarterly to receive and determine applications for harvesting of forest products; co-ordinating harvesting activities; and preparing a distrct harvesting plan. Members of the committee should comprise the District Commissioner (Chairperson), District Executive Director (Secretary), District Water Engineer, District Natural Resources Officer, Village Executive Officer and Village Chairman (of the village responsible for the forest to be harvested).

Documents required to be attached with applications for a harvesting licence include a valid trading licence, TIN certificate, letter from the forest officer or village government and a valid licence to trade in forest products. Three types of harvest licences are available: (i) harvesting trees, logs and poles (FD1); (ii) firewood collection (FD2); and (iii) commercial charcoal and firewood (FD3).

After receiving the licence, harvesters are required to report to the respective village Government and to present their felling licence showing that all duties have been fully paid. Village government, in collaboration with District Forest Officers, are supposed to supervise harvesting to ensure that the harvesters are following the volumes, species and harvest areas specified on their licence.

The Director of Forestry maintains the right to prohibit or restrict the movement of timber of any kind, quantity or description both within Tanzania and from Tanzania (Section 63 of the *Forest Act, 2002*).

Fees and royalties

The *Forest Act of 2002* empowers the Minister to prescribe the services and licences for which fees shall be charged, with section 78 outlining the determination of royalties based on market value of the produce, accessibility, profitability and principles of sustainable harvesting. The current fees for any licence, permit or certificate for felling trees and collecting forest produce under the *Forest Regulations (2004)* (Part VII) are given in the Fourteenth Schedule. Non-plantation tree species are grouped into one of five classes, whose fees per cubic metre (true measure over bark) range from TZS 70 000 for Class I to TZS 30 000 for Class V. Regulation 29 specifies that these fees may be amended by the Minister by notice published in the Gazette, and in practice are updated depending on market forces. Royalties for wood harvested from National forest reserves are sent to the FBD headquarters in Dar es Salaam.

A retention scheme was started in 1998 and allows the MNRT to retain 70% of forestry revenue collected[117], with the remainder submitted to Treasury (FBD, 2001). Twenty per cent of the retained revenue is allocated to MNRT administrative costs, whilst the remaining 80% is used for FBD recurrent and some development expenditures. The Treasury covers all staff salaries whilst donor funding financed 99% of development expenditures amounting to some TZS 14 billion in 2003/2004 (World Bank, 2005b).

Local authorities retain royalties collected from wood harvested from Local authority forest reserves in their area of jurisdiction, in addition to additional taxes stipulated in any by-laws

[117] In the case of plantations, FBD has retained around 45% of forest royalties under the Logging and Miscellaneous Deposit Account (LMDA) since 2000 (FBD, 2001).

under the *Local Government Act, 1982*, and *Local Government Finance Act, 1982*. For example, most district councils charge traders an additional district levy, 5% of the total timber harvest licence fee payable to central government. In the case of village forest reserves, the village retains 100% of the royalty, whilst revenue sharing within jointly managed forests has yet to be finalized. The proposed revenue sharing scheme for Kitope, Kilwa District, is village (60%), central government (30%) and local government (10%).

Revenue collection targets are calculated annually[118], and reviewed on a monthly basis to assess progress. A more detailed outline of revenue collection and accounting processes is given in TFCMP (2005).

Timber exports

Approval for export permit of forest produce is obtained from the Director on an annual basis, with a range of documentation submitted with the form (e.g. valid trading licence, TIN certificate, VAT certificate, tax clearance certificate, company certificate of incorporation, contracts, lists of workers and previous years earnings).

According to the Section 58 of the *Forest Act (2002)* (Part VII Trade in Forest Produce), timber exporters are required to possess a valid export certificate issued by the Director for each shipment. Export certificates are valid for three months, and may only apply to graded timber whose origin and grade accords with the timber markings. Timber inspection before export, including grading and marking, may only be conducted by those authorized by the Director. All exporters are required to give notice of at least one month prior to shipment for the timber to be inspected for grading. An authorized timber grader must conduct grading within two weeks before the shipment is made.

Procedures are further detailed in Part XV (Regulation on the Export of Forest Produce) of the *Forest Regulations (2004)*. Regulation 50(1) specifically states, "No logs of any tree species shall be exported". Acquisition of CITES export documentation where appropriate is covered under Regulation 50(14). Exporting companies are further required to submit to the DFBD monthly and annual export returns indicating quantity exported (m3), destination and total foreign currency earnings for each consignment exported.

Penalties

Part IX of the *Forest Act 2002* details a range of offences and their penalties. Offences relating to trade in forest produce (e.g. harvest, transport, offers for sale, sells, buys, stocks, marks, exports or enters for export) may receive a fine not less than two hundred thousand shillings and not exceeding one million shillings and/or to imprisonment for a term not exceeding two years. The sale and disposal of forest produce by tender, public auction, private agreement or otherwise is covered in Part VIII of the *Forest Regulations (2004)*, allowing the Director and any authorized officer to dispose of forest produce. This may occur either at the fees prescribed under Regulation 29, by tender, public auction, or by private agreement.

[118] The Government of Tanzania operates a financial year starting on 1st July and ending on 30th June.

Annex 4 Results of forest inventories

A. Results of FBD forest inventories conducted in 11 priority districts, 2005

District	Ha forest	m^3	m^3 per ha
Mpanda	3 196 744.0	11 690 042	3.66
Ulanga	2 497 309.5	2 637 254	1.06
Liwale	2 455 050.0	13 460 373	5.48
Tunduru	1 051 143.0	12 838 956	12.21
Mvomero	897 554.3	2 941 136	3.28
Handeni/Kilindi	848 567.3	392 692	0.46
Kilwa	725 553.0	7 615 588	10.50
Kilombero	655 464.5	917 473	1.40
Rufiji	608 794.0	2 305 499	3.79
Mkuranga/Kisarawe	381 021.0	387 219	1.02
Nachingwea	190 159.0	662 656	3.49
Total	**13 507 359.6**	**55 848 888**	

Source: Malimbwi *et al*., 2005a,b,c,d,e.

B. Results of MCP Kilwa District woodland surveys, 2005

Total expected number of legally harvestable trees and total expected harvestable volume in Kilwa District by species, with confidence intervals[119] (CI)

Scientific name	Legal minimum DBH (cm)	Number of trees	CI (x1000 m^3)	Volume (m^3)	CI (x1000 m^3)
Dalbergia melanoxylon	24	771 000	516 - 1116	257 000	205 - 346
Pterocarpus spp.	45	151 000	83 - 280	197 000	109 - 415
Milicia excelsa	5	16 000	4 - 68	70 000	42 - 123
Millettia stuhlmannii	-	11 000	3 - 42	14 000	9 - 19
Combretum imberbe	24	118 000	22 - 466	61 000	26 - 130
Afzelia quanzensis	55	27 000	12 - 78	45 000	30 - 70
Bombax rhodognaphalon	55	55 000	22 - 146	319 000	214 - 440

Source: Mpingo Conservation Project rapid stocks assessment (Ball *et al.*, 2006).

[119] Confidence levels were 80% for the number of harvestable trees and 85% for harvestable volume. However, authors of the surveys stressed that caution should be placed on the precision of this data (believed to be an over-estimate), especially inaccuracies in land use cover maps (Ball *et al.*, 2006).

Annex 5 Exports of timber products

A. Timber product exports, 2002/2003 – 2004/2005

Product	units	2002/2003	2003/2004	2004/2005
Logs	m^3	4 920.00	8 529.00	5 867.48
Rough sawn	m^3	5 539.86	8 162.00	87 918.30
Dalbergia melanoxylon	m^3	79.05	231.00	65.24
Flooring strips	m^3	657.85	251.00	75.09
Sleepers	m^3	2 233.40	2,769.00	272.06
Carvings	kg	246 034.00	72 043.00	6 655.00
Sandalwood	Ton	195.10	350.00	4 964.00
Samani	pieces	3 634.00	734.00	various
Tannin	ton	295.00	98.00	114.00
Mimosa bark	ton	265.00	157.00	15.72
Terminalia bark	bags	0.00	0.00	1 180.00
Seeds	kg	100.00	38.00	0.00
Beeswax	ton	537.00	243.00	288.00
Honey	ton	647.00	799.99	465.18
Resin	kg	10.00	0.00	0.00
Poles	pieces	0.00	904.06	8 791.80

Source: Forestry and Beekeeping Division, 2006.

A. Timber product exports, July to December 2005

Type of forest product	Quantity	Revenue TZS
Logs	8 847.32 m^3	22 476 556.50
Sawn timber	15 004.92 m^3	50 690 701.60
Processed products	5 418 pcs	8 649 017.50
Carvings	7 030.89 kg	8 161 740.50
Flooring strips	314.40 m^3	906 316.00
Clarinet	75.52 m^3	1 700 000.00
Wattle	308 t	800 000.00
Sandalwood	0.16 t	100 000.00
Osyris oil	3 drums	479 000.00
Root barks	304 t	800 000.00
Makuti roll	310 bags	51 000.00
Total		**94 814 332.10**

Source: Forestry and Beekeeping Division, 2006.

Annex 6 Confiscated logs declared for auction

Quantities of logs declared for auction by FBD in December 2004

District	Volume	Value (TZS)	Av TZS/m^3
Kilwa	210.52	15,349,238.76	72,911
Mkuranga	278.08	13,784,765.51	49,571
Bagamoyo	57.49	4,030,796.37	70,113
Rufiji	1,613.63	117,641,865.65	72,905
DSM port/ivory room	14.73	1,180,064.49	80,113
Nachingwea	92.47	7,408,081.16	80,113
Kisarawe	1,316.84	80,964,002.92	61,484
Masasi	287.79	23,055,720.27	80,113
Mtwara	341.36	27,347,614.02	80,114
Tunduru	18.25	1,462,062.25	80,113
Kibaha	80.43	6,034,608.36	75,029
Total	**4,311.59**	**298,258,819.76**	**69,176**

Source: Forestry and Beekeeping Division.

13 ACRONYMS

AFLEG	African Forest Law Enforcement and Governance
CCM	Chama cha Mapinduzi
CEPF	Critical Ecosystems Partnership Fund
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPI	Crime Perception Index
DBH	Diameter at Breast Height
DED	District Executive Director
DFO	District Forest Officer
DNRO	District Natural Resources Officer
DPG	Tanzania Development Partners Group
EAC	East Africa Community
EU	European Union
FBD	Forestry and Beekeeping Division
FLEG	Forest Law Enforcement and Governance
FOB	Freight-on-board
GDP	Gross Domestic Product
IFM	Independent Forest Monitoring
IISD	International Institute for Sustainable Development
LDC	Least Developed Country
LGA	Local Government Authority
MCP	Mpingo Conservation Programme
MKUKUTA	Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania
MNRT	Ministry of Natural Resources and Tourism
MTEF	Mid-Term Expenditure Framework
NFP	National Forest Programme
NSGRP	National Strategy for Growth and Reduction of Poverty
PFM	Participatory Forest Management
PMO-RALG	Prime Minister's Office – Regional Administration and Local Governent
RAS	Regional Administrative Secretary
PRSP	Poverty Reduction Strategy Paper
RFO	Regional Forest Officer
RNRA	Regional Natural Resources Advisor
SADC	Southern Africa Development Community
SWAp	Sector-Wide Approach
TANAPA	Tanzania National Parks
TANU	Tanganyika Africa National Union
TFCMP	Tanzania Forest Conservation and Management Programme
TFS	Tanzania Forest Service
TZS	Tanzania Shilling
UNEP	United Nations Environment Programme
USD	US Dollar
VPO	Vice President's Office
WAWAMATA	Tanzania Forest Products Transport and Export Dealers Union
WTO	World Trade Organisation
WWF	World Wide Fund for Nature

14 GLOSSARY

Bribery - Offering, giving, receiving, or soliciting of any item of value to influence the actions as an official or other person in discharge of a public or legal duty.

Community Based Forest Management - A form of participatory forest management that enables local communities to declare – and ultimately gazette – Village, Group or Private Forest Reserves. The forests are owned by either a village council, a group or an individual.

Corruption - The abuse of public power for private benefit; *or,* Behaviour that deviates from the formal rules of conduct governing the actions of someone in a position of public authority because of private-regarding motives such as wealth, power, or status.

Cronyism - Partiality to long-standing, loyal friends .

Embezzlement - The deliberate fraudulent appropriation or theft of resources by those put to administer it**.**

Favouritism - Showing an inclination to favour some person or group, which in its most damaging form, constitutes unfair treatment of a person or group on the basis of prejudice.

Fiduciary contract - A reciprocal relationship of accountability between citizens and the state in which services are provided by the state in exchange for financial contributions from citizens.

Forest - An area of land with at least 10% tree crown cover, naturally grown or planted and/or 50% or more shrub and tree regeneration cover and refers in this report to refers to natural or indigenous forests (i.e. not plantations) and covers all categories of forest and woodland found in southern Tanzania (e.g. coastal forests, miombo woodlands).

Governance - The maner in which power in exercised in the management of a country's economic, social and natural resources for development.

Independent Forest Monitoring – The use of an independent third party that, by agreement with state authorities, provides an assessment of legal compliance, and observation of and guidance on official forest law enforcement systems.

Illegal logging - Contravention of national or international law at any point along the trade chain from source to consumer.

Joint Forest Management - A form of participatory forest management whereby communities sign joint forest management agreements with government and other forest owners. The forests are owned by central or local government.

Nepotism - Favouring of relatives.

Participatory Forest Management - Forest management that provides a clear legal basis for communities, groups or individuals to own, manage or co-manage forests.

Patronage - The act of supporting or favouring some person, group, or institution.

Rent seeking - Activities that seek to create, capture or re-allocate rents.

Rents - Incomes that are created by state interventions.

Self-dealing - Direct, personal involvement in a business activity.

Timber trade - covering all activities from logging through to export.

Timber - Any wood or tree which has felled or has been felled or cut off and all wood whether unsawn, hewn, sawn or machined, split, or otherwise cut up or fashioned and shall include lumber, flooring strips, shingles, and sleepers but does not include any article manufactured from such wood or firewood (*Forest Act, 2002).*

TRAFFIC

TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC is a joint programme of WWF and IUCN - The World Conservation Union.

TRAFFIC's vision is of a world in which trade in wild plants and animals will be managed at sustainable levels without damaging the integrity of ecological systems and in such a manner that it makes a significant contribution to human needs, supports local and national economies and helps to motivate commitments to the conservation of wild species and their habitats. Over the past 30 years, TRAFFIC has gained a reputation as a reliable and impartial organization, a leader in the field of conservation as it relates to wildlife trade. It is a global network, research-driven and action-oriented, committed to delivering innovative and practical solutions based on the latest information.

TRAFFIC is governed by the TRAFFIC Management Committee, a steering group composed of members of WWF and IUCN. TRAFFIC also works in close co-operation with the CITES Secretariat.

www.traffic.org

Tanzania Development Partners Group

The Development Partners Group (DPG) recognises the crucial importance of collective action and increasingly co-ordinated/harmonised efforts of the DPG should result in significantly improved effectiveness and quality of development assistance to Tanzania while reducing transaction costs for development partners and Government.

Membership of the DPG is open to any bilateral or multilateral partner that provides development assistance to the United Republic of Tanzania. The rationale for a DPG that does not include Government membership is to be better able to complement the Government's own co-ordination efforts by promoting internal coherence amongst the development partners in the context of TAS and the Rome Declaration.

In 2006, membership comprised Belgium (BTC), Canada (CIDA), Denmark, European Delegation, Finland, France, Germany, Ireland (DCI), Italy, Japan (Embassy and JICA), Netherlands, Norway, Spain, Sweden (SIDA), Switzerland (SDC), UK (DFID), US (USAID), UNDP, UNICEF, ILO, UNFPA, UNIDO, UNAIDS, UNCDF, WFP, UNHCR, FAO, UNESCO, WHO, UN-Habitat, IMF and the World Bank.

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Credit: Simon Milledge/TRAFFIC

View of miombo woodland south of Rufiji River

TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The full report 'Forestry, Governance and National Development: Lessons learnt from a logging boom in southern Tanzania' is available from TRAFFIC. For further information contact:

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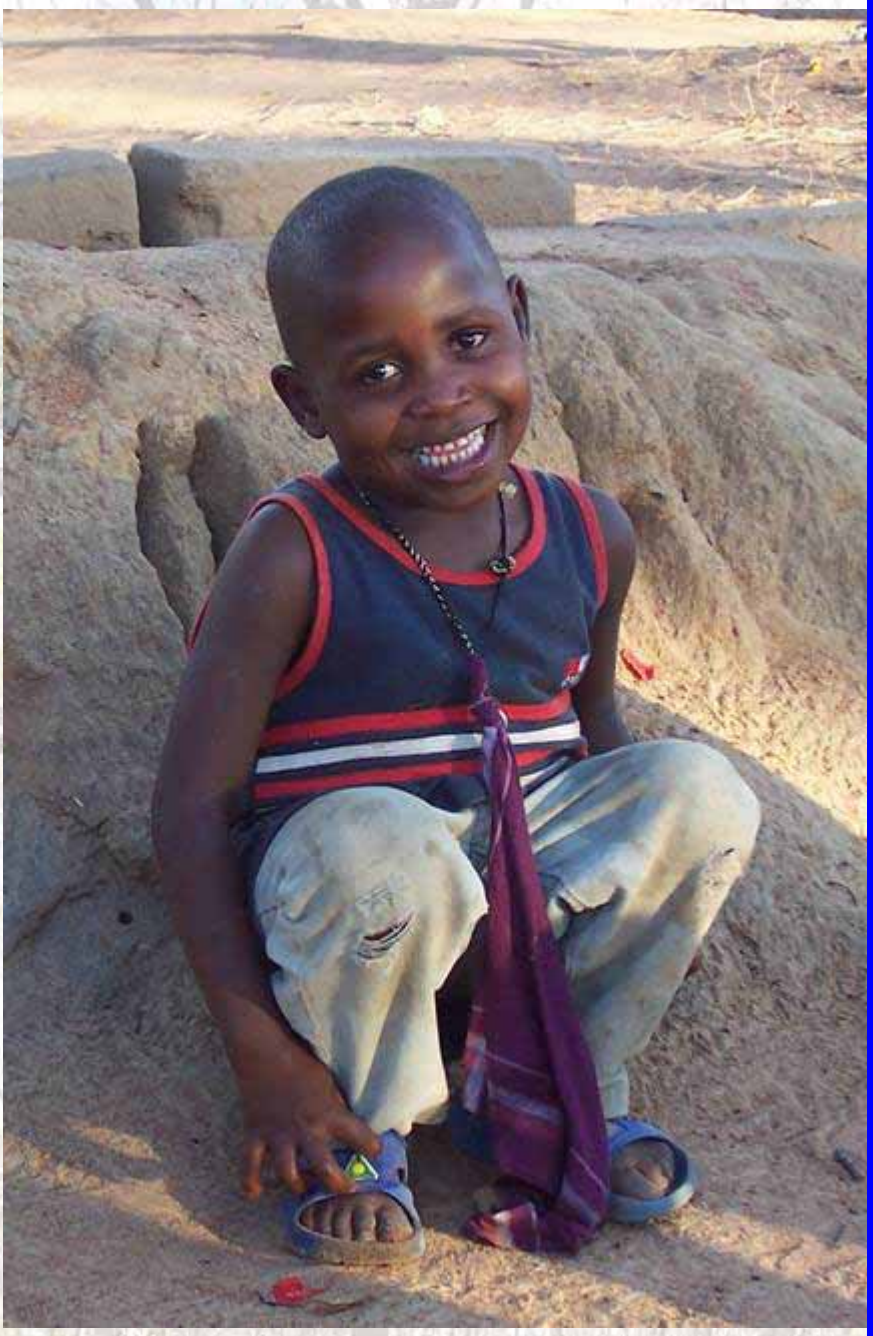

TRAFFIC
the wildlife trade monitoring network

is a joint programme of

WWF IUCN The World Conservation Union

The Tanzania Development Partners Group (DPG) recognises the crucial importance of collective action, whereby co-ordinated and harmonised efforts should result in significantly improved effectiveness and quality of development assistance while reducing transaction costs. Membership of the DPG is open to any bilateral or multilateral partner that provides development assistance to the United Republic of Tanzania.

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