

SHARING NATURAL RESOURCES REVENUE Towards Derivation Funds for Uganda

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TOWARDS NATURAL RESOURCE DERIVATION FUNDS FOR UGANDA

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Acronyms and Abbreviations

| | |
|-------|---|
| BCN | Biodiversity Conservation Network |
| CBNRM | Community-Based Natural Resources Management |
| CF | Consolidated Fund |
| CFM | Collaborative Forest Management |
| CFR | Central Forest Reserve |
| CGA | Central Government Account |
| DEC | District Environment Committee |
| DF | Derivation Fund |
| DFR | Department of Fisheries Resources |
| GCA | Game Controlled Area |
| GDP | Gross Domestic Product |
| GMA | Game Management Area |
| GoU | Government of Uganda |
| GSMD | Geological Surveys and Mines Department |
| IBRD | International Bank for Reconstruction and Development |
| KMTN | King Mahendra Trust for Nature |
| LC | Local Council |
| LEC | Local Environment Committee |
| LFR | Local Forest Reserve |
| LGFC | Local Government Finance Commission |
| MACP | Mountain Areas Conservancy Project |
| MEMD | Ministry of Energy and Mineral Development |
| NEA | National Environment Act |
| NFA | National Forestry Authority |
| NGO | Non-Governmental Organisation |
| NTFP | Non-Timber Forest Product |
| PEAP | Poverty Eradication Action Plan |
| PMA | Plan for Modernization of Agriculture |
| RCNP | Royal Chitwan National Park |
| RMC | Resource Management Committee |
| SFG | School Facilities Grant |
| SOE | State Owned Enterprise |
| TEV | Total Economic Value |
| TWPF | Tanzania Wildlife Protection Fund |
| UGC | User Group Committee |
| UNP | Uganda National Parks |
| URA | Uganda Revenue Authority |
| USAID | United States Agency for International Development |
| US\$ | United States Dollar |
| UShs | Uganda Shillings |

| | |
|-------|---|
| UWA | Uganda Wildlife Authority |
| UWS | Uganda Wildlife Society |
| VFC | Village Forest Committee |
| VNRMC | Village Natural Resource Management Committee |
| WMA | Wildlife Management Area |
| WRI | World Resources Institute |

Executive Summary

There is a general concern that despite significant natural resources endowment, Ugandans living adjacent to and in proximity of natural resources have not benefited much from natural resource revenue collected near them. As a result, the Uganda Wildlife Society proposed a one-year partnership with the World Resources Institute that sought to explore the possibilities of equitable and meaningful distribution of revenue from the wildlife, forestry and mineral sectors in Uganda through the establishment of derivation funds.

The overall aim of this study was to assess the feasibility of establishing derivation funds for selected natural resources sub-sectors. The specific objectives of the study were to: define the concept of a derivation fund, its rationale and features; review existing institutional, policy and legal arrangements bearing on derivation funds; document relevant international experience; present the challenges of establishing derivation funds in Uganda; propose applicable derivation funds; and derive main conclusions and key recommendations.

Uganda's policies and laws regarding natural resources derivation funds are to a large extent silent, save for some provisions in the Wildlife Act and the Mineral Act. Even where derivation funds are provided for the allocation formula results in meager resources flowing to the communities and local governments of derivation. Notwithstanding the foregoing, the policies and laws governing renewable natural resources do provide for benefit, not necessarily revenue, sharing.

At the moment, it is only the Uganda Wildlife Authority that has a revenue sharing mechanism in place. The forestry sector used to share revenue, but this practice ended with the establishment of the National Forestry Authority. In general, the establishment of various natural resource authorities has resulted in local governments and the communities surrounding protected areas losing revenue. In the case of wildlife revenue sharing, not only is the actual amount small but even this is used to subsidize other failed or incomplete central government projects such as schools, health centers and roads which are supposed to be supported by other programmes.

A review of international experiences shows countries have various models for revenue sharing. The most elaborate of these mechanisms

is for oil and gas and to some extent major mining activities, probably because of the disproportionately large contribution to total government revenue these revenue make. In contrast, the Uganda Government has shown lackluster interest in sharing revenue from renewable natural resources.

To establish and operate successful derivation funds in Uganda, a few challenges need to be overcome. These challenges are: ensuring there is political will; addressing some governance issues; recognizing the transboundary nature of some of the natural resources; ensuring equity in funds flow; recognizing that it is not possible to come up with a single standard derivation fund; and ensuring equity in revenue sharing.

Two categories of natural resources derivation funds are proposed for Uganda – one for renewable natural resources and the other for non-renewable ones. Natural resource specific derivation fund models can be obtained from either of the two broad categories.

In general, the operationalization of renewable natural resources derivation funds would require the revision of the present royalty, fees or stumpage structures such that a fixed percentage charge is added for derivation in the case of forestry and wildlife. With respect to minerals, the Mineral Act provides for a derivation fund for local governments but not always for communities of derivation (depending on whether the land on which mining is taking place is customary land or private and whether the district governments would be willing to allocate their share of royalty payments for community derivation funds). Although the potential exists, no commercial quantities of oil and gas have been identified as yet. Hence an opportunity exists for this report to contribute to the debate surrounding oil and gas derivation funds, informed by international experience.

The study concludes that establishing natural resources based derivation funds is feasible and ought to be implemented. It recommends additional analysis be carried out in: determining the extra charge for renewable natural resources derivation funds; and providing assistance in the establishment of, and managing, community derivation funds, among others.

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1.0 Introduction

1.1 Background

This report is the result of a collaborative effort between the Uganda Wildlife Society (UWS) and World Resources Institute (WRI). UWS, with the financial support of WRI, is exploring the possibilities of equitable and meaningful distribution of revenue from the wildlife, forestry and mineral sectors in Uganda through the establishment of a derivation fund. Resources for research conducted under this project were provided by WRI's Institutions and Governance Program with the support of the United States Agency for International Development (USAID).

The main concern of the study is that despite significant natural resource endowment, Ugandans living adjacent to and in proximity of natural resources have experienced little socio-economic benefit from these resources. For purposes of this study, due to considerations of levels of significance, and time budgetary constraints, not all natural resources were considered. This study focused on some of the important renewable and non-renewable resources. Oil and gas was considered in the latter category although commercial production has not started.

Uganda is endowed with a high-value renewable natural resource base that supports the livelihoods of both the rural and urban populations and provides a significant base of the revenue generated by the government and the private sector. This renewable natural resource base includes the wildlife, forestry and fisheries sub-sectors. For example, the wildlife sub-sector with its 10 national parks, 12 wildlife reserves and 14 wildlife management areas that cover a considerable portion of Uganda's land surface, is the main source of tourism revenue, which accounts for the largest proportion of Uganda's foreign exchange earnings. The forestry sector has close to 1,000 forest reserves that have both extractive and non-extractive value. The forestry sector provides vital ecological services, tourism revenue, as well as timber and non-timber forest products. Amongst the non-renewable resources, the mineral sub-sector has been depressed for over two decades, but there are indications that it may regain its reputation as a major contributor to Uganda's gross domestic product through cobalt and limestone mining; the latter being crucial to the

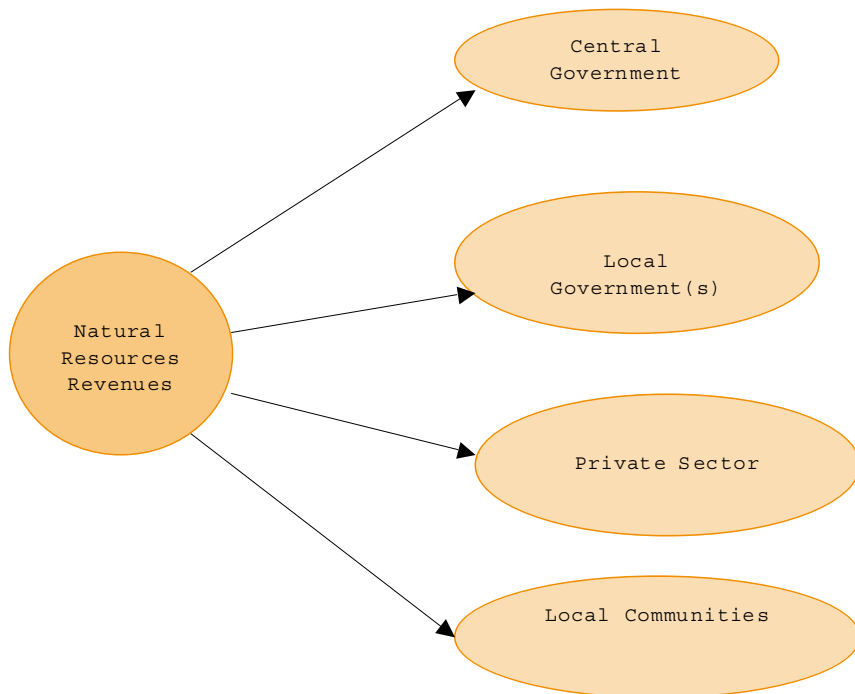
growing cement industry. If commercial quantities are proven, oil and gas extraction in the Albertine Graben area could offer a significant boost to Uganda's economy.

Currently, the only form of significant revenue derivation in the natural resources sector occurs in the form of tourism revenue sharing in protected areas controlled by the Uganda Wildlife Authority (UWA). The revenue shared consists of 20% of the gate (entrance) fees. This is a very small portion of the tourism revenue generated by UWA and it has not translated into meaningful benefits for the communities that bear the cost of residing adjacent to the protected areas or for the district local governments that host them. Although other natural resource sectors (forestry, fisheries, minerals, etc.) generate significant revenue, there exists no other effort for revenue derivation.

According to Fisher (1989), while equity involves getting a 'fair share' (not necessarily an equal share) what is regarded as a 'fair share' varies according to different situations (and different cultures). There are two aspects of equity to note. First, there is economic equity which refers to the allocation of costs and benefits amongst stakeholders as a result of policy or resource management decisions (Mahanty et al., 2006). Second is allocative or distributional equity referring to the distribution of benefits from community-based natural resources management amongst the stakeholders (Mahanty et al., 2006).

UWS believes that the equitable distribution of natural resource revenue between the central government, the local government, the private sector, and local communities (Figure 1) will enhance the conservation of natural resources in Uganda. Therefore, UWS proposes designing derivation fund models applicable to the wildlife, forestry and mining sectors.

Figure 1 - Channels of natural resources revenues flow



Poverty reduction and ultimately poverty alleviation are partly a function of the distribution of resources, including public revenues and other benefits generated from natural resources. Distributional equity of natural resource benefits can promote broad-based, sustainable development. In countries with local and national natural resource-dependent economies, revenues from natural resources warrant distributions that favor the needs of the poor. Productive and high-value natural resources are rarely accessible to all citizens and their benefits are rarely evenly distributed across peoples and geographically across nations. Equally important, revenues from natural resources have a long history of being mismanaged and misappropriated – with political and economic elites often capturing a large share of the benefits while the disenfranchised majority must often absorb a disproportionately large share of the associated social and environmental costs.

Various mechanisms have been used to promote distributional equity of natural resource benefits. These include disproportionately taxing regions and people with natural resource wealth (e.g. progressively structured taxation policies) and allocating state natural resource revenues in ways that favor the poor (e.g. equalization grants that recognize various human development and social well-being measures). In many nations in Africa, Asia, and Latin America, rural households are poorer and more dependent on natural resources than urban households. In the absence of distributional equity, regions and people with access to productive natural resources and the revenue they generate may prosper while those with no or limited access to such natural resources or with access to only low-value natural resources will remain in poverty.

Distributional equity of natural resource benefits includes both inter-jurisdictional equity (equity across districts within a nation) and intra-jurisdictional equity (equity across peoples and communities within levels of public administration below the central government). While more research is needed, policy analysts and development professionals argue that inter-jurisdictional equity (for broad national development) can be accomplished only by central government and consequently, is a function of the willingness of the central state to engage in redistribution among regions. Inter-jurisdictional equity may involve central government providing public revenues, goods and services directly to the poor or allocating revenues and other goods and services to local governments with poor constituents and poor natural resource endowments.

Intra-jurisdictional distribution of government goods and services and the equity of local government decisions is often a function of decentralization. It is argued that decentralization provides more equitable distribution in local districts, greater opportunities for empowering and serving the poorest people, and as a result, better supports poverty reduction. Whereas there is some evidence that local authorities are better than central authorities at identifying and reaching the poor and that they incorporate distributional preferences into choices on spending decisions, it is unclear whether this is common practice. Recent research concludes that responsiveness to the poor is, in fact, a rare outcome of decentralization, determined mainly by local-central government relations. Positive outcomes are mainly associated with strong commitments by national governments

or ruling parties to promote the interests of the poor at the local level. Therefore, the central role of national governments in both inter-jurisdictional and intra-jurisdictional equity is clear.

1.2 Objectives

The overall aim of the study is to assess the feasibility of establishing derivation funds for the natural resources sub-sectors selected.

More specific objectives were:

- to define the concept of a derivation fund, its rationale and key features;
- to review existing institutional, policy, legal frameworks that have bearing on the establishment of derivation funds;
- to document relevant international experiences;
- to present the challenges of establishing derivation funds in Uganda; and
- to derive main conclusions and present key recommendations for the establishment of derivation funds in Uganda.

1.3 Methodology

The methodology used in collecting information for the study consisted mainly of desk research and field experiences derived from research conducted by UWS and its partners in western and southwestern Uganda. This was further enriched by key informant interviews with those knowledgeable in the management of the selected natural resources sub-sectors.

1.4 Report Structure

The report is divided into eight chapters including this introduction. Chapter Two highlights derivation funds – the concept, rationale and key features. Chapter Three looks at the institutional, policy and legal landscape of relevance to derivation funds. Chapter Four deals with

3 WRI, Advocates Coalition for Development and Environment (ACODE), and PRIMWest have conducted extensive research on tourism revenue sharing around protected areas in western and southwestern Uganda.

natural resource derivation fund arrangements in Uganda. Chapter Five documents relevant international experiences. Chapter Six deals with the challenges of establishing derivation funds in Uganda. Chapter Seven presents proposals for derivation fund models. Chapter Eight contains conclusions and recommendations, followed by literature cited and annexes.

2.0 Derivation Funds

2.1 Definitions

In its simplest term, a derivation fund is a derived benefit, an allocation of part of the revenue accruing from natural resources exploitation to the area of origin – that is, the area where the benefits are derived from. The need for derivation funds stems from considerations of equity.

Equity refers to whether something is fair, just, or impartial. On the other hand, equality means sameness. Equity, therefore, might entail equality, but not necessarily. According to Poteete (2004), there are four forms of equity: equity between localities; equity in the division of rights and responsibilities between community and national decision makers; political equity within communities; and economic equity within communities. This report mainly focuses on economic equity and to some extent address what is equitable.

Table 1 illustrates the different dimensions of equity. The process of setting the equity benchmark and goals to be achieved through an equity framework is important, and requires reference to the social context as well as explicit discussion and negotiation between stakeholders (Mohanty et al., 2006). Unfortunately, this rarely occurs in practice (Mohanty et al., 2006). Also the issue of equity between localities has been a central concern in the planning field where the siting of infrastructure and services has important implications for their equitable access and use (Mohanty et al., 2006).

Table 1 - Equity dimensions

| Dimension | Description |
|----------------------|---|
| EQUITY IN | <ul style="list-style-type: none"> • Distribution or allocation of resources (economic) • Representation (participation and influence in political decision-making) |
| EQUITY BETWEEN | <ul style="list-style-type: none"> • Social groups within a community • Stakeholders at different levels • Localities • Generations |
| THE EQUITY BENCHMARK | <ul style="list-style-type: none"> • Processes for determining 'what is equitable'. • Culturally determined and socially-based rights |

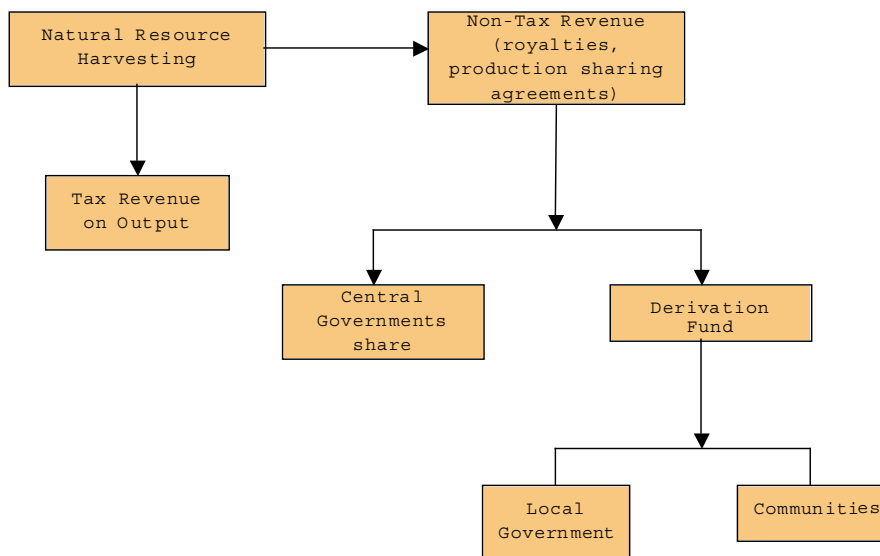
Source: Mahanty *et al* (2006)

Although natural resources revenues are distributed between four key stakeholders –central government, local governments, local communities and the private sector – the key issue here is the allocation of resource rents, typically referred to, as royalties. While the regions of derivation also receive a share of revenue which governments realize from taxation all other regions in the country also benefit whether they have any exploitable natural resources or not. Defined thus, the private sector (developers) from which the central government receives royalties is therefore excluded from the definition of derivation funds. Figure 2 illustrates a simple concept of a derivation fund. Typically, the owner of the resource is the central government. Whether through concessions or licenses, the government authorizes developers to harvest the resource. The developer in turn pays the government a royalty or stumpage which if other things were equal would approximate the true economic rent accruing to the resource. It is this royalty or stumpage which is the subject of derivation funds not the total value of the resource harvested, further justifying the exclusion of the private sector in determining and allocating derivation funds. The dotted line in Figure 2 recognizes that regions of derivation also receive their shares of resource-based revenues.

Typically, the revenues realized through royalties, stumpage fees, etc. go to the central government. Thereafter, the central government

then allocates this revenue to itself, and the local government and local communities where the resource is harvested. The amount allocated to local government and local communities is equal to the monies which would qualify for a derivation fund. As will be explained in the next Chapter, this channel of funds flow is somewhat altered when forestry and wildlife are considered since the funds do not go into Government Treasury but rather to the relevant authorities. The mathematical expression of a derivation fund is presented in Annex 1.

Figure 2 - Concept of a derivation fund



2.2 Rationale

There are several reasons for justifying the creation of a derivation fund, but first one needs a fiscal policy which specifies that a certain share of resource revenues need to be given to the lower level governments and local communities.

Lower level governments and local communities are known, at least perceived, to bear a disproportionately larger share of the costs associated with resource harvesting being subjected to a range of adverse externalities such as environmental degradation. The benefits they receive from resource harvesting activities is often minimal –

largely employment, which itself may not be much due to the capital intensive nature of some of the operations.

There is need to make local authorities accountable to users of natural resources. This is because, if local authorities exercise little discretion over the management of natural resources, there is little reason to expect formal decentralization of natural resources management to improve either the sustainability of management or equity in the distribution of costs and benefits (Poteete, 2004).

According to Poteete (2004), except in resource rich areas, households ultimately get a small amount of cash, or the local government might decide to use the revenues for a public project such as a school. Equal distribution of funds cannot be considered equitable, given the unequal distribution of costs. Likewise, the establishment of public facilities does not target the households that bear the highest costs associated with natural resources management.

Aluko (2005) suggests that a derivation fund is a verifiable way station between resource control and complete enslavement, even within the context of a federal system of government. The author further states that our governments (Nigerian) control the resources, and the communities/individuals 'derive' benefits therefrom from the government. Revenue allocation is from higher levels of governance to lower levels, and special derivation funds to certain selected communities are based on high-value derivations there from. Finally, the author cautions thus:

"The issue of revenue allocation, derivation and resource control generate a lot of passion in Nigeria and among Nigerians. However, if we are to remain a united, strong, happy, free, fair and democratic country moving towards nationhood, then cool heads must prevail as we right historical wrongs without creating new ones. The first place to start is to be very mindful that there is a clear difference between resource control and derivation percentage and not for even some of our best minds to glibly quote percentage figures for these two issues (that is derivation and resource control) as if one could be exchanged with the other".

A state that harvests natural resources (such as producing oil and gas) not only needs to assess how to exploit its natural resources to obtain

the highest revenues, but also has to decide how the revenues should be distributed to directly benefit its citizens in a socially responsible manner (IBRD/World Bank, 2002). That is, the State must address the following issues:

- how rents from the exploitation of the natural resources are generated;
- how these rents should be distributed; and
- how to implement a suitable framework to administer the utilization of resources and ensure their best final use.

3.0 Institutional, Policy and Legal Framework for Benefit Sharing in Uganda.

3.1 Institutional Structure

The natural resources of Uganda are owned and governed under different institutional structures, ranging from complete governmental control to community and private sector ownership with interesting features in between. Table 2 shows different forms of ownerships of selected natural resources in the country. It shows that non-renewable natural resources – minerals and hydrocarbons (oil and gas) - are by and large, owned by the central government .

On the other hand, wildlife and forest areas tend to be widely owned. Wildlife areas are owned by the central government which the UWA is mandated to manage in perpetuity (in which case there is implied ownership); other wildlife areas are owned by local governments, communities and the private sector .

Table 2 - Ownership of selected natural resources in Uganda

| Institution | Non-Renewable Natural Resources | | Renewable Natural Resources | |
|-----------------------------|---------------------------------|----------|-----------------------------|----------|
| | Oil and Gas (Hydrocarbons) | Minerals | Wildlife | Forestry |
| Central Government | | | | |
| Parastatal/Quasi-Government | | | | |
| Local Government | | | | |
| Community | | | | |
| Private sector | | | | |
| Civil Society Organizations | | | | |

The mineral and any hydrocarbon resources in the country are largely owned by the Government of Uganda. These resources may be leased by investors who in turn pay the Government of Uganda a royalty or with whom the government shares the resource produced through a production sharing agreement. The Government in some cases may also be a joint venture partner. The Geological Surveys and Mines Department (GSMD) of the Ministry of Energy and Mineral Development (MEMD) has the mandate to manage the mineral resources of the country. The Petroleum Exploration and Production Department (PEPD) also of MEMD is the institution responsible for hydrocarbons. Revenues due to the Government of Uganda (GoU) are paid into the Consolidated Fund.

The institutional arrangement for the management of forests and wildlife resources is somehow different. All wildlife belongs to the people of Uganda and held in trust by the various levels of government. National Parks, Wildlife Reserves and Animal Sanctuaries are managed by the Uganda Wildlife Authority (UWA), a quasi-government institution, and an autonomous corporate body which can sue or be sued. Community wildlife management areas are owned and managed by local (district) governments with technical support from the UWA. Revenues realized from national parks and wildlife reserves constitute the main source of income for the UWA. Currently, there is not much revenue being realized from community wildlife management areas.

⁵However, stones making aggregates are licensed by local governments.

⁶Several large-scale livestock ranches have wildlife in them. The ranch owners manage the wildlife with technical assistance of the UWA.

⁷However, stones for making aggregates have been left to the local governments.

However, should the revenue be realized in the future, it would flow directly into district treasuries and probably only subject to community derivation funds.

Similar to wildlife resources, there are central and local forest reserves, and privately- and community- owned forests. The central forest reserves (CFRs) are managed by the National Forestry Authority (NFA) and any revenues generated do not end up in the Consolidated Fund but rather constitute the income of the NFA. Likewise, revenues from local forest reserves (LFRs) belong to the respective local governments.

Currently, the Department of Fisheries Resources (DFR) is responsible for policy, supervision and quality control. The DFR does not charge any royalty or rent. Both the DFR and district governments issue licenses to those interested in fish harvesting. There is a proposal to establish a Fish Authority and to charge a levy on fish exports. This proposal is contained in the Draft Fisheries Bill.

From the foregoing, the sources of derivation funds arising from petroleum exploration production and mineral development are fairly straightforward. The GoU receives the income and may allocate some of it to lower local governments and the communities in the areas where the resources are harvested.

When it comes to wildlife and forest reserves, the issue is a bit more complicated in that both the NFA and the UWA are in effect state owned enterprises (SOEs) expected to meet their own costs. Currently, the revenues generated by the wildlife protected areas managed by the UWA can only meet 24% of the Authority's annual recurrent and development costs. Hence suggestions for revenue sharing with local governments and local communities are problematic unless provided for in the legal document. In this case the Wildlife Act provides for allocation of 20% of entrance fees to communities. In the case of the NFA, there are no such legal requirements for revenue sharing of incomes derived from CFRs. Instead, communities benefit through collaborative forest management arrangements .

According to Conrad & Shalizi (1988), SOEs are generally organized as separate legal entities, and as such important constraints are required to ensure efficient SOE behavior. According to the authors, the SOE

structure should be treated as 'subsidiary' which is one component of the overall portfolio of firms (activities) operated by the government. As such, investments and other resource allocation decisions for the SOE should then reflect the need for overall portfolio balance by governments. Finally, the authors argue thus:

"...Therefore it is imperative that the SOE be charged the social opportunity cost of the resource which implies charging a royalty of some form. Inconsistent policies and signals can be generated if the computation of opportunity cost is left to the SOE. Society as a whole owns the resource, not the SOE and thus government must be responsible for computing the price of this scarce commodity. The SOE should be treated as an allocator and not a price maker. An exogenous price will aid in developing incentives which induce the SOE to respond to social values and not private ones."

Conrad & Shalizi (1988) observed that, ideally, the SOE should be subject to the same taxation system as private firms. In their view, such a treatment provides the incentive necessary for rational management and can limit the economic and political power of the SOE .

3.2 Policies

3.2.1 Macroeconomic Policies and Plans

Uganda has developed a series of macroeconomic policies aimed at the improvement of livelihoods and poverty reduction through sustainable extraction of the resource base in the country. An examination of the macroeconomic policies and plans reveals that these instruments have no specific provision for derivation funds. The National Environment Management Policy does advocate for the active participation of local communities in environmental planning and management. It also has provisions for resource pricing which support the view that economic rent should be used as a basis for valuation of resources and that the total economic value (TEV) concept should be applied. On the other hand, the PEAP is Uganda's overarching development framework. It lays emphasis on poverty alleviation, including reducing poverty levels in the communities where

⁸The Forestry and Tree Planting Act left some reserves under the ownership of the local governments as Local Forest Reserves (LFRs). However, unless significant rehabilitation efforts are undertaken, the majority of these LFRs are not very productive.

⁹Currently, neither the NFA nor the UWA are charged any royalties comparable to private firms.

natural resources are harvested. The modernization of agriculture, ultimately leading to the elimination of subsistence farming is the central focus of the Plan for Modernization of Agriculture (PMA). Both the PEAP and the PMA are further discussed below.

Of all the macroeconomic policies, the decentralization policy is the most specific with respect to how the GoU is to share tax revenues with districts and lower local governments. However, the policy is also fairly silent on the modalities for allocating non-tax revenue.

Emphasis has been placed on the agricultural sector that the country has over time had comparative advantage in. Reference is also made to other sources of revenue and the environment is no exception. Natural resources support the majority of rural and urban livelihoods, however their unsustainable utilization coupled with poor governance and inequitable distribution threaten the existence of the resource for future generations.

The macroeconomic policies are thus designed to ensure the sustainable extraction and utilization of the resources as a tool for poverty eradication.

Poverty Eradication Action Plan (PEAP) 2004 – 2008

PEAP provides the guiding framework for poverty eradication and has undergone a number of revisions to adapt to the development trends and challenges of the country and the most recent version has made an attempt to incorporate these challenges.

The PEAP is divided into five pillars: Pillar 1 – Economic Management; Pillar 2 – Production, Competitiveness and Incomes; Pillar 3 – Security, Conflict-Resolution and Disaster-Management; Pillar 4 – Good Governance; and Pillar 5 – Human Development. The promotion of economic growth has in the recent past had a backlash on the natural resource base and threatens the continued existence of some protected areas that have been converted to industrial or allegedly more economically viable enterprises. PEAP makes recognition of the importance of natural resources, the heavy dependence of the poor on natural resources and their contribution to improvement of livelihoods if managed in a sustainable manner. Under Pillar 2, cognizance is made of the environment and concern raised on the declining soil fertility and deforestation in Uganda. The Government made commitments to land reform, reduction of deforestation and engagements in programmes aimed at the protection of wetlands and wildlife.

A number of strategies were developed for the implementation of the various PEAP pillars. The priority actions for environment and natural resources management include: the development of an Environment and Natural Resources strategy; increased funding for the National Environment Management Authority; and capacity building.

Plan for Modernization of Agriculture (PMA)

The Plan for Modernization of Agriculture (PMA) is the government's economic development policy for modernization of agriculture. The PMA framework is designed to transform subsistence agriculture to commercial agriculture and it is hoped this will contribute to the transformation of rural livelihoods and contribute to poverty eradication.

The entry point for the PMA is through the agricultural sector that supports over 80 percent of the population. One of the broad strategies for achieving PMA objectives makes recognition of the need to manage and utilize natural resources in a sustainable manner for the benefit of both the present and future generations. The key resources recognized are land, water, forestry, wetlands and the environment. Furthermore, agroforestry is one of the services that will be provided under the agricultural advisory services and under the agricultural education curricular. The fisheries sub-sector is also considered a priority which would benefit from advisory services and the promotion of the development of farm level commercial fishing enterprises.

3.2.2 Sectoral Policies

Sectoral policies, such as those dealing with forestry, wildlife, fisheries, mining, and oil and gas production, all differ on the degree of explicitness to which they refer to benefit sharing in general and derivation funds in particular. For example, whereas the National Fisheries Policy is explicit on revenue sharing, the National Forestry Policy is less clear, although it refers to collaborative forest management (CFM). CFM is a form of community-based natural resources management (CBNRM). Kellert et al. (2000) observed that advocates promote CBNRM as a means for improving the socioeconomic conditions of the rural poor, improving sustainable resource management, and increasing the power and participation of hitherto marginalized groups.

Wildlife Policy, 1999

The Wildlife Policy recommends community involvement in revenue and other benefits sharing. The other benefits include harvesting crafts materials, beekeeping and collecting water from the multiple use zones of wildlife protected areas. Unfortunately, no attempts have been made to monetize these benefits.

National Fisheries Policy, 2004

The National Fisheries Policy is perhaps the most explicit about community involvement in fisheries management. It provides a role for Beach Management Units (BMUs), themselves mechanisms for greater community involvement in the management of Uganda's capture fisheries resources with provisions for community share of revenues.

National Forestry Policy, 2001

The National Forestry Policy provides guidance on the management of the forest estate in Uganda. The guiding principles of the Policy are hinged on the conservation and sustainable utilization of the forest resources for the benefit of the present and future generations. The forest resources on both private land and in the forest reserves are considered as major sources of revenue for the local and central governments as well as the private sector and an avenue for improvement of livelihoods and poverty reduction through sustainable extraction of forest products.

The Policy does not make express mention on revenue sharing in the forestry sector; however, the various policy statements make reference to supporting the private sector and communities in accessing forest resources. For example, under Policy Statement 1 that provides for the establishment of a permanent forest estate, one of the strategies for the implementation of this statement is to provide support for the development of responsible private sector enterprises that can harvest timber and non-timber forest products from natural forests.

Another policy statement that could be interpreted as one of the avenues for benefit sharing is Policy Statement 5 that provides for collaborative forest management (CFM) as a mechanism through which communities may participate in forest management and share benefits derived from improved forest management. One of the

strategies designed for the implementation of this statement is the development of a supportive legal basis for tree tenure, access rights and sharing of benefits from wood and non-wood forest products. The National Forestry Authority has already embarked on the development and implementation of collaborative forest management initiatives. CFM arrangements could thus be interpreted as one avenue for benefit, but not specifically revenue, sharing in the forestry sector.

Draft National Oil and Gas Policy, 2006

According to IBRD/World Bank (2002), a state that produces hydrocarbons (oil and gas) not only needs to assess how to exploit its natural resources to obtain the highest revenues, but also to decide how the revenues should be distributed to directly benefit its citizens in a socially responsible manner. Therefore, an appropriate oil and gas policy should, among others, address three important issues:

- how rents from oil and gas exploitation are generated;
- how these rents are distributed; and
- how to implement a suitable framework to administer the utilization of resources and ensure their best final use.

With commercial oil and gas production expected to commence in western Uganda within next five years, the Government of Uganda has drafted a National Oil and Gas Policy specifying a revenue share for the central government that will be determined by the production sharing agreement reached with the oil and gas company. While the policy provides for investment support in the areas of derivation, the specific mechanisms are not yet clear.

However, government is in the process of finalizing a Petroleum Fund to manage expected oil and gas revenues. The proposed fund is contained in the draft policy, and is to be managed by the Bank of Uganda. The Bank's role would be to control inflationary pressures likely to emerge with the influx of oil revenue. The Bank will also have to manage the exchange rate and use the revenue collected to develop other sectors of the economy.

The Mineral Policy, 2000

The Mineral Policy was designed to provide a regulatory and enabling framework that would attract foreign and local private investment in

¹⁰NFA developed a CFM agreement with the Hanga-Kiwera community in 2005 for the northern part of Budongo Forest Reserve (Waibira Block, Compartment KP1 & W38). The objectives of the CFM plan were to protect the northern part of the Reserve from illegal activities, promote regeneration and support the livelihoods of the local, especially vulnerable, communities around the northern part of the reserve.

mining activities as well as regulate and promote small-scale mining. The overall strategy of the Mineral Policy is to ensure that the country's mineral wealth supports sustainable national growth and development as well as the equitable sharing of the benefits from mineral resources amongst the people of Uganda.

Under Objective 2 of the Policy, the Government undertakes to ensure that mineral wealth supports national economic and social development and the principle behind this objective is that Government shall ensure equitable sharing of revenue from the mineral resources. Furthermore, strategies to implement this objective include the levy and collection of royalties and fees and the sharing of royalties between central government and local governments from where minerals are extracted.

The Policy recognizes the importance of artisanal mining and the involvement of communities in mineral extraction and processing. It has provisions about sharing of royalties received by central government with local governments and local communities. The royalty due to Government is generally around 3%, depending on the mineral being extracted. The royalty being paid is in effect a natural resource rent – a payment (explicit or implicit) which accrues from either the scarcity value or ownership (or both) of a mineral resource (Conrad & Shalizi, 1988) .

3.3 Laws and Regulations

The Constitution, 1995

The Constitution as the supreme law provides a comprehensive guidance against which a regulatory framework for natural resources may be developed. Although the Constitution does not make express mention of the sharing of natural resource revenue, it makes reference to sustainable utilization for the benefit of both the present and future generations.

Part XIII of the National Objectives and Directive Principles of state policy oblige the State to protect the natural resources on behalf of the people of Uganda. Part XXVII of these Principles expressly provides for the environment and obliges the state to promote sustainable development and further under XXVII (ii), natural resources shall

be managed in such a way as to meet the development and environmental needs of the present and future generations.

Article 244 of the Constitution makes reference to minerals and places an obligation on the Parliament to make laws regulating their exploitation, sharing of royalties arising from mineral exploitation, payment of indemnities arising out of mineral exploitation and restoration of mining area lands. In conducting exploitation of minerals, the interests of landowners, local and central governments should be taken into account.

Article 245 obliges Parliament to provide measures that would protect and preserve the environment from pollution and degradation, sustainable environmental management and the promotion of environmental awareness.

The National Environment Act, 1995

The National Environment Act (NEA) is the framework legislation that provides the principles and guidance on the management of natural resources in Uganda. One of the principles that guide environmental legislation set out in section 2 (c) of this Act is the need to use and conserve the environment and natural resources of Uganda equitably and for the benefit of both present and future generations. Furthermore, a major guiding principle for environment management is the need to conserve the cultural heritage and use the environment and natural resources of Uganda for the benefit of both present and future generations.

The NEA provides that every Ugandan is entitled to a healthy environment. It also provides for some fiscal instrument measures such as user fees for natural resource utilization and fines and taxes for bad environmental behavior guided by the 'polluter pays principle' and the use of incentives and disincentives (economic instruments) to realize proper environmental management. The law also provides for the establishment of district environment committees (DECs) and local environment committees (LECs) at the lower levels of local government. The NEA also provides for the decentralization of environment and natural resources, but does not provide authority for ownership. Unfortunately, there is no clear financing mechanism to support the DECs and the LECs.

The Act being a framework natural resource legislation, save for making reference to the need to utilize the natural resources for the present and future generations, does not expressly contain provisions on revenue sharing. However, Section 44 that governs access to genetic resources and obliges the National Environment Management Authority and the lead agency to develop guidelines for the access, export and sharing of benefits derived from genetic resources originating from Uganda.

Local Governments Act, 1997

The decentralization and devolution of some services, functions and powers from the central government to local governments is set out under Chapter 11 of the Constitution and translated in detail in the Local Governments Act. The management of some natural resources is the responsibility of local governments. The Local Governments Act specifies the relationship between the central government and local governments, including the sharing of government revenue. However, the law predominantly focuses on the sharing of tax revenue and the formula government uses to allocate this revenue to district governments in the form of conditional and unconditional grants. The Local Governments Act does not recognize, in a fiscal sense, the region of origin of natural resources. Hence, it is largely silent on the issue of derivation funds.

The Act sets out a number of objectives some of which include ensuring democratic participation in the control of decision making by the people concerned and the establishment of sources of revenue and financial accountability.

In addition to revenues received from central government, local governments are responsible for generation of their revenue and have the power to levy taxes (Section 80). Under Section 76(c) the function of Local Government Finance Commission (LGFC) include considering and recommending to the President potential sources of revenue for Local Governments. Furthermore, the LGFC provides advice to the President on the allocation and distribution of revenue between the central government and local governments from the Consolidated Fund.

Local government revenue is regulated under the Fifth Schedule of

the Act. Under the Schedule, the major sources of revenue include graduated tax, property tax and grants from central government. Other local government revenue set out under Part 13 of the Schedule include fees, fines, bicycle licenses, parking fees, advertisement fees, user charges, fishing licenses, charcoal burning licenses and any other revenue that may be prescribed by local governments and approved by the Minister.

It should be noted that the sole sources of natural resource revenue recognized under the Act are derived from the forestry and fisheries sectors. This is restrictive taking into consideration the diverse range of natural resources in some of the districts. There however is a possibility for expansion dependant on the innovativeness of the respective local governments.

The Second Schedule of the Act sets out the services and activities that were decentralized and these include the management of natural resources. Under Part 5(a) of the Second Schedule, local governments are responsible for crop, animal and fisheries husbandry. Furthermore, under Part 5(l) of this schedule, local governments are responsible for local forest reserves and wetlands.

Under Part 15 of the Second Schedule, District Councils are responsible for assisting central government to preserve the environment through the protection of forests, wetlands, lakeshores, streams and the prevention of environmental degradation.

The Wildlife Act, 1996

The Wildlife Act governs the conservation, sustainable management and utilization of the wildlife resources. The Act is also designed to enhance economic and social benefits from wildlife management through the establishment of wildlife use rights and the promotion of tourism.

The Uganda Wildlife Authority is the lead agency responsible for wildlife and some of its functions that could provide avenues for revenue sharing include the development and implementation of collaborative arrangements for the management of wildlife ; the establishment of policies and procedures for the sustainable utilisation of wildlife by and for the benefit of communities living in proximity to

¹¹Section 7(e)

¹²Section 7(g)

wildlife ; the development of tourist facilities in wildlife protected areas; and the collection of fees for such services as it provides and for the licences, rights and other permission.

The Act makes express provision for revenue sharing under Section 70(4) where the Board of UWA is obliged to pay 20 percent of the park entry fees collected from a wildlife protected area to the adjacent local governments. However, it does not provide for how the derivation funds are allocated between local governments and the communities surrounding the protected areas (inter and intra-jurisdictional equity).

UWA has developed Guidelines on the Revenue Sharing Programme around Protected Areas. According to the Guidelines, the overall goal for revenue sharing is:

“To ensure that local communities living adjacent to Protected Areas obtain benefits from existence of these areas, improve their welfare, and ultimately strengthen partnerships between the UWA, local communities and local governments for sustainable management of resources in and around protected areas”

Forestry and Tree Planting Act, 2003

The Act sets out the regulatory framework for the conservation, sustainable management and development of forests for the benefit of the people of Uganda. Under the Act, the categories of forests include central forest reserves, local forest reserves, community forests and private forests that are all managed by different institutions.

Central and local forest reserves are managed by the National Forestry Authority and local governments, respectively for the benefit of the people of Uganda. These two institutions are responsible for the conservation and sustainable utilization of the forest resources. Section 15 reflects the Forestry Policy provision on collaborative forest management and obliges all the institutions responsible for forest management to enter into collaborative forest management arrangements with any forest user group.

Under Section 54, the NFA is obliged to promote community participation in management of central forest reserves, establish procedures for the sustainable utilization of the forest resources by and for the benefit of the people of Uganda. Furthermore under 54(2) (d),

¹³Section 7(r)

¹⁴Page 2, UWA Guidelines for Revenue Sharing Programme

the NFA is under an obligation to advise on innovative approaches for local community participation in the management of local forest reserves.

Similar to the policy, the Act does not expressly provide for forestry revenue sharing. Inference on avenues through which forest resources could be extracted for livelihood improvement as well as sustainable management of the resources is primarily restricted to collaborative forest management arrangements. Therefore, the Forestry and Tree Planting Act has no provision for derivation.

Instead, the Act recognizes two categories of gazetted forest reserves – central forest reserves (CFRs) and local forest reserves (LFRs). While the law gives responsibility for managing CFRs to the NFA, the districts own and in theory derive all the benefits accruing from LFRs. These benefits are theoretical, firstly, in the sense that most natural forest LFRs are preserved for the ecological services (water catchment mostly) they provide with no tangible monetary flows into the district treasury. Secondly, the remainder of the LFRs are suitable for plantation forestry but at the moment highly degraded. The districts lack the funds to invest in plantation forestry. Consequently, most LFRs do not generate any significant revenues at the moment. The law provides for the NFA to cooperate with communities where the CFRs are located through collaborative forest management initiatives. CFM agreements have largely been restricted to the management and harvesting of non-timber forest products (NTFPs) as the permitted form of benefit sharing.

The Mining Act, 2003

The Mining Act regulates mineral exploration and extraction and vests all ownership of minerals in the country to the Government of Uganda. Part II of the Act provides for mineral agreements and prospecting licenses. The holders of a mineral dealer's license are, under Section 71, liable for payment of royalties due on any minerals bought, received or exported.

The Act makes express provision on the payment of royalties as a source of mineral revenue that could be subjected to distribution amongst the respective beneficiaries. Under Section 98, all minerals obtained or mined in the course of prospecting, exploration, mining or mineral beneficiation operations shall be subject to the payment

of royalties on the gross value of the minerals based on the prevailing market price of the minerals at such rates as shall be prescribed. Furthermore, the Act under Section 98(2) provides for the sharing of royalties between central government, local governments and owners or lawful occupiers of land subject to mineral rights in the manner specified in the Second Schedule to this Act. Under the Second Schedule, the distribution is as follows: central government receives 80%, local governments receive 17% and the owners or lawful occupiers of land subject to mineral rights are entitled to 3%.

The Petroleum (Exploration & Production) Act, 1985

The Petroleum (Exploration and Production) Act provides for a percentage of production going to the central government. In addition, the central government receives revenue in form of various taxes and levies. As far as derivation funds are concerned, the focus is on the percentage the central government receives as its share of the production sharing arrangement. There is evidence to show Uganda has significant deposits of hydrocarbons which may be of commercial value. If successfully proven, the issue of derivation funds is expected to come to the fore. Already areas where hydrocarbon discoveries have been reported are agitating for a share of the revenue – some as high as 51%!

4.0 Natural Resources Derivation Funds

4.1 The Natural Resources Sectors

Renewable and non-renewable natural resources in Uganda are a source of revenue to both the government and the private sector. The forestry and wildlife sectors have considerable portions of land that have been set aside as protected areas where adjacent community access is restricted or prohibited in some instances. The institutions that manage these protected areas extract revenue from varying sources such as licenses, entry fees, permits, extraction and sale of the resources, and concessions. The mechanisms of equitable sharing of these revenues with the adjacent local administrations and communities remain a challenge; although recent changes in various natural resources management regimes have recognized the importance of adjacent communities in the management and sustainability of natural resources.

There are a number of natural resources sectors from which the various levels of government, communities and the private sector derive benefits. They include: wildlife, forestry, minerals, fisheries and wetlands. This list may soon include hydrocarbon (oil and gas deposits) that was recently discovered to exist in potentially commercially-viable quantities. Considered purely from a derivation fund perspective, these natural resources are at different stages of development.

The wildlife sector is explicit in both law and practice on what local communities and the public in general are entitled to as far as revenue sharing from protected areas is concerned. The mineral sector is also legally clear on revenue sharing. As far as forestry is concerned, before the establishment of NFA, there was a mechanism for revenue sharing with the local governments that requires review. With regard to the fisheries sector, a fish levy has been proposed in the new Fisheries Bill that has yet to be passed into law. Hence, any analysis of possible fisheries revenue sharing arrangements is premature at this time. While there have been discoveries of oil and gas deposits, characterization of these deposits as commercially exploitable is not yet complete. In anticipation of potential commercial production of oil and gas in Uganda, a Petroleum Policy is being formulated. However, once adopted, the policy will have to be translated into a Bill and finally passed into law; therefore, its review would currently be premature.

However, it should be noted that there are other forms of natural resource benefit sharing other than revenue sharing that exist in Uganda. These various forms of benefit sharing are recognized and formal arrangements exist for their implementation. For example, in the wildlife sector, access rights have been recognized through a legal provision for wildlife use rights that permit hunting, farming, ranching, wildlife trade, educational or scientific research, and general extraction. In the forestry sector, access rights have been granted through the issuance of permits, licenses and concessions to the private sector or local communities to engage in activities such as tree planting, collaborative forest management, livestock grazing, and extraction of timber and non-timber forest products.

Table 3 - Selection of natural resources for further discussion

| Sector | Revenue Sharing Status | Selection |
|-----------|---|---|
| Wildlife | Wildlife Act provides for 20% of entrance fees payable to the communities surrounding wildlife protected areas, in addition to other non-monetized benefits. | Selected for further discussion |
| Forestry | Previously 40% of revenue received by the Forest Department was to go to local governments. This provision was removed with the establishment of the NFA. | Needs further review and, therefore, selected for further discussion |
| Minerals | Mining Act provides for the sharing of royalty between the central government, local governments and owners of the land who may be local communities. | Selected for further discussion |
| Fisheries | New Fisheries Bill in place but is yet to be passed into law. The Bill proposes the introduction of a Fish Levy but its operationalization will wait for the law. | Not selected for further discussion |
| Wetlands | No provisions for sharing of monetary benefits. Guidelines available for sharing of non-monetary benefits. A wetlands law is proposed. | Not selected for further discussion |
| Oil & Gas | Deposits of oil and gas discovered but no commercial production yet. New policy being formulated. If adopted, will have to be translated into law. | Not selected for further discussion for now, but will be a key candidate for future analysis. |

From the foregoing, this report will focus on the revenue sharing experiences and possibilities for establishment of derivation funds in the forestry, wildlife and mineral sectors. Some mention will also be made of the remaining natural resources sectors in as far as they inform the process.

4.2 Forestry

Before the establishment of the NFA in 2004, the Forest Department, its predecessor institution, was mandated to pay local (district) governments 40% of the gross revenue it collected within their respective boundaries, with the expectation that a certain amount (not specified) was to be remitted to the sub-county governments of origin and ultimately to communities surrounding central forest reserves. Unfortunately, this was not done. Hence there was a near zero chance that any funds received by the sub-counties were in turn passed onto lower governments such as the parishes or villages surrounding the central forest reserves (CFRs).

While rather dated, the data in Table 4 and Table 5 on revenues remitted by the District Forest Officers (central government employees) to the central government and the local government for the 1995/96 to 1999/2000 fiscal years is quite instructive.

Table 4 - Total forest revenue remitted to central government 1995-2000 (Millions Uganda Shillings)

| Revenue Source | 1995/96 | 1996/97 | 1997/98 | 1998/99 | 1999/2000 | Total |
|-------------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Royalty | 63.3 | 189.6 | 165.6 | 166.7 | 143.9 | 729.1 |
| 15% Tax | -- | 8.1 | 102.8 | 124.8 | 219.9 | 455.6 |
| Assorted | 0.3 | 16.8 | 63.8 | 137.2 | 88.2 | 306.3 |
| Auction | -- | 77.4 | 55.1 | 46.4 | 75.1 | 254 |
| Registration | 16.3 | 31.4 | 38.1 | 23.7 | 86.7 | 196.2 |
| Timber Sales | 6.3 | 11.9 | 36.6 | 2.3 | -- | 57.1 |
| Movement Fee | 2.5 | 15.1 | 22.3 | 25.3 | 32.5 | 97.7 |
| Compensation Fee | 10.5 | 16.3 | 10.0 | 3.6 | 5.7 | 46.1 |
| Land Lease | 1.4 | 13.4 | 5.8 | 2.2 | 1.7 | 24.5 |
| Casual Sales | 6.2 | 29.5 | 4.8 | 2.4 | 3.6 | 46.5 |
| Seedling Sales | 0.7 | 1.7 | 1.1 | 0.5 | 0.2 | 4.2 |
| Felling Fee | 1.1 | 8.7 | 0.5 | 1.5 | 2.4 | 14.2 |
| Services Rendered | -- | -- | 0.3 | 0.1 | 0.0 | 0.4 |
| Concession Fee | -- | 10.5 | -- | 2.3 | -- | 12.8 |
| 1% Tax | -- | -- | 0.2 | 1.1 | 5.1 | 6.4 |
| Total | 108.6 | 430.4 | 507.0 | 540.1 | 665.0 | 2251.1 |

Source: FAO (2001)

Table 5 - Total forest revenue remitted to local governments 1995-2000 (Millions Uganda Shillings)

| Revenue Source | 1995/96 | 1996/97 | 1997/98 | 1998/99 | 1999/2000 | Total |
|-------------------|-------------|--------------|--------------|--------------|--------------|---------------|
| Royalty | 42.2 | 126.4 | 110.3 | 111.2 | 96.0 | 486.1 |
| 15% Tax | -- | 5.4 | 68.5 | 83.2 | 146.6 | 303.7 |
| Assorted | 0.2 | 11.2 | 42.5 | 91.5 | 58.8 | 204.2 |
| Auction | -- | 51.5 | 36.7 | 30.9 | 50.1 | 169.2 |
| Registration | 10.9 | 20.9 | 25.4 | 15.8 | 57.8 | 130.8 |
| Timber Sales | 4.2 | 8.0 | 24.4 | 1.5 | -- | 38.1 |
| Movement Fee | 1.6 | 10.1 | 14.8 | 16.8 | 21.7 | 65.0 |
| Compensation Fee | 7.0 | 10.9 | 6.6 | 2.4 | 3.8 | 30.7 |
| Land Lease | 0.9 | 8.9 | 3.9 | 1.5 | 1.1 | 16.3 |
| Casual Sales | 4.1 | 19.6 | 3.2 | 1.6 | 2.4 | 30.9 |
| Seedling Sales | 0.5 | 1.1 | 0.7 | 0.3 | 0.1 | 2.7 |
| Felling Fee | 0.8 | 5.8 | 0.3 | 1.0 | 1.6 | 9.5 |
| Services Rendered | -- | -- | 0.2 | 0.0 | -- | 0.2 |
| Concession Fee | -- | 7.0 | -- | 1.5 | | 8.5 |
| 1% Tax | -- | -- | 0.1 | 0.8 | 3.4 | 4.3 |
| Total | 72.4 | 286.8 | 337.6 | 360.0 | 443.4 | 1500.2 |

Source: FAO (2001)

In the first place, the data show that the revenues collected at district level are kept in collection accounts with local banks and, at the end of each month, bank drafts are prepared in favor of the Permanent Secretary of the Ministry responsible for forestry – which are then submitted to the Commissioner of the Forest Department. The district's share is passed onto the relevant district.

Second, revenue collection increased steadily over the 1995/96 to 1999/2000 years, largely due to improvements in revenue collection and recording. For example, the central government's share of forest revenues increased from US\$ 108.6 million in the 1995/96 fiscal year to US\$ 665.0 million by the end of the 1999/2000 fiscal year, averaging an annual government revenue of US\$ 450.2 million. Similarly, local governments' 40% share of the gross revenue increased from US\$ 72.4 million to US\$ 443.4 million over the same period, representing an annual average of US\$ 300.0 million/year.

Third, as shown in Table 6, gross revenue from central forest reserves increased from US\$ 181.0 million in 1995/1996 fiscal year to US\$ 1,108.4 million by the end of the 1999/2000 fiscal year. Fourth, the gross revenue and local government share was from diversified sources including royalty, taxes and sale of seedlings, among others.

Fifth, from 2000/2001 to 2003/2004 the management of the forestry sector was being re-structured. Since the levels of revenue collection in each district depended on the integrity of the District Forest Officer and the Concession Ranger, data for the period are questionable. This is because most forest officers feared the effect of the re-structuring which was meant to result in a lean structure. Hence over this period, the integrity of the officers was most likely compromised.

Sixth, the above revenues shared with district governments only included the revenue collected from the production of goods and services in CFRs and public land. Public land is held by the Uganda Land Commission, if it has not been leased to a specific interest. However, according to the Land Act 1998, all land belongs to the people, so public land no longer exists. Thus, any revenue collected from forest production on such land should now be given to the bona fide land owners. Similarly, any revenue collected from the production of forest products in local forest reserves (LFRs) should all be given to the appropriate local administration. LFRs are forest reserves where ownership and control has been transferred to the local administration previously by the Forest Department and re-affirmed by the National Forestry and Tree Planting Act 2003.

Table 6 - Summary revenue collection and allocation 1995-2000 (Millions Uganda Shillings)

| Year | Central Government | Local (District) Government | Total |
|-----------|--------------------|-----------------------------|---------------|
| 1999/2000 | 665.0 | 443.4 | 1108.4 |
| 1998/1999 | 540.1 | 360.0 | 900.1 |
| 1997/1998 | 507.0 | 337.6 | 844.6 |
| 1996/1997 | 430.4 | 286.8 | 717.2 |
| 1995/1996 | 108.6 | 72.4 | 181.0 |
| | 2251.1 | 1500.2 | 3751.3 |

Source: Table 4 and Table 5

The National Forestry and Tree Planting Act 2003 established the NFA and re-classified forests into CFRs and LFRs. In addition, the Act removed the local governments' 40% share of gross revenue from CFRs. Hence all revenues generated from CFRs now belong to the NFA. The argument is that local governments would be able to generate revenues from LFRs. This argument is faulty in the short to medium-term. For one, the LFRs are either 'protection' forests, mainly natural forests in critical watersheds where timber harvesting has traditionally not been allowed. Secondly, the remainder of LFRs are un-afforested woodlands and grasslands, and derelict eucalyptus plantations. To realize any meaningful amounts of revenues from LFRs will therefore require significant investments in forest rehabilitation and afforestation. Unfortunately, neither the local governments nor the central government have the funds required for such activities. In conclusion, therefore, one can argue that:

- before the coming into force of the National Forestry and Tree Planting Act in 2003, districts used to receive derivation funds representing 40% of gross revenues from CFRs and 100% from LFRs. However, evidence available at the time suggested that the share of revenues was largely retained at district headquarters and very little if any of the funds were received by the communities surrounding the CFRs and LFRs;
- the coming into force of the National Forestry and Tree Planting Act dealt a triple blow. First, the Central Treasury (Consolidated Fund) now receives much less revenue from CFRs, mainly in form of taxes on forest produce and taxes paid by the NFA. Second, the districts lost the 40% share of gross revenue from CFRs. Third, the communities surrounding both the CFRs and the LFRs continue to receive no derivation fund from forestry;
- the NFA is supposed to be self-financing with minimal subvention from the central government. Currently, and in the medium-term at least, the NFA is unable to self-finance from its own resources. The NFA to some extent relies on financial support from development partners, currently from the Government of Norway and the European Union for the most part. Hence the NFA is likely to oppose any voluntary revenue sharing arrangement; and
- even if financial resources are identified for revenue sharing, if the district is the principal recipient, then the communities surrounding

CFRs and LFRs will continue to receive no significant monetary benefits but incur all the costs associated with the management of the forest estate, other things being equal.

4.3 Wildlife

Of all the natural resources sectors in Uganda, the wildlife sector has perhaps done the most work in articulating the issue of derivation funds, chiefly through the Uganda Wildlife Authority (UWA) Revenue Sharing (RS) Programme.

As shown in Table 7, revenue sharing was first piloted in Bwindi Impenetrable National Park (BINP) and Mgahinga Gorilla National Park (MGNP) from March 1993 to June 1994. During this pilot programme on revenue sharing 20% of the value of gorilla permits was set aside for revenue sharing. However, after the pilot programme on revenue sharing, the Uganda National Parks (UNP) Policy of 1955 changed the structure of revenue sharing and instead allowed for 12% of all the income earned from the national parks to be set aside for revenue sharing – 8% to the local communities, 2% to the districts in which the wildlife protected area lies, and 2% to a National Pool to support projects in parks which earned little or no money.

Thereafter, both the Wildlife Policy 1996 and the Wildlife Statute 1996 recommended the re-structuring of the institutional arrangement for wildlife management in the country. The national parks were subsequently merged with the game reserves which hitherto had been the direct responsibility of a government line ministry. Thus, the Uganda Wildlife Authority (UWA) was established by the Wildlife Statute. In addition, the law creating the UWA also mandated the institution to set aside 20% of tourists' entrance fees for revenue sharing. From a derivation perspective, the creation of the UWA had three profound effects, namely:

- the central government abdicated its responsibility to fund management operations of the game reserves (re-named as 'wildlife reserves') and passed the burden onto the semi-autonomous UWA;
- the new Wildlife Statute upheld the ban on trophy hunting imposed in 1979. Yet, trophy hunting was the main source of

revenue generated by the then Game Department for the national treasury; and

- subsequently, the national parks now had to generate enough revenue to fund their operations, those of the wildlife reserves and a bloated bureaucracy at headquarters. Yet, not all national parks were generating revenue despite the increase in their numbers. Hence the new wildlife management institution began operations handicapped financially.

Despite the financial constraints, the UWA has continued to set aside the 20% of entrance fees for revenue sharing. Furthermore, in 2006, the UWA introduced a US\$ 4 gorilla permit levy to further increase the size of the derivation account, but only applicable to the communities (parishes) surrounding the Bwindi Mgahinga Conservation Area (BMCA).

Table 7 - The evolution of revenue sharing in wildlife protected areas

| Source of Revenue | Percentage/Amount | Date | Scope |
|--|-------------------|----------------------------|--|
| Gorilla Tracking Permit/ ^a | 20% | March 1993 to June 1994 | Bwindi Impenetrable National Park and Mgahinga Gorilla National Park (Pilot Phase) |
| Gross Park Earnings (Park Entrance Fees, Guide Fees, Accommodation, Camping, Gorilla Tracking, etc.)/ ^a | 12% | November 1995 to July 1996 | Nationwide/All wildlife protected areas |
| Park Entrance Fees (Visitors)/ ^a | 20% | November 1996 to Current | Nationwide/All Wildlife protected areas |
| Gorilla Permit Levy/ ^b | \$4 | From 2006 to Current | Bwindi Impenetrable National Park and Mgahinga Gorilla National Park |

Sources: /^a - Mutebi (2004)

The overall goal of the UWA Revenue Sharing Programme is: to ensure that local communities living adjacent to wildlife protected areas (PAs) obtain benefits from the existence of these areas, improve their welfare, and ultimately strengthen partnerships between the

UWA, local communities and local governments for sustainable management of resources in and around PAs (UWA, 2000a). The specific objectives of the Revenue Sharing Programme are:

- to provide an enabling environment for establishing good relations between the PAs and their neighboring local communities;
- to demonstrate the economic value of protected areas and conservation in general to local communities neighboring PAs; and
- to solicit support and acceptance of PAs and conservation from local communities living adjacent to these areas.

From both the overall goal and the specific objectives, it is apparent that while the revenue sharing programme has legal endorsement, the UWA sees it as a 'goodwill gesture' and not an entitlement of the communities.

Notwithstanding the foregoing, as of 30th June 2006, US\$ 1872.3 million has been disbursed or set aside for disbursement to the communities adjacent to wildlife protected areas (Table 8). About US\$ 1055.5 million had been disbursed as of 30th June 2006; while US\$ 816.8 million was held in the UWA Revenue Sharing Accounts of the UWA, awaiting disbursement. Part of the reason for delays in the disbursement of funds is the rather elaborate process involved. The UWA Revenue Sharing Policy provides for the following procedure:

- communities develop viable project proposals at the community level;
- then the proposals are submitted to the Community-Protected Area Institutions (CPIs);
- CPIs screen and recommend projects to the Sub-Counties for approval;
- the Sub-Counties then forward the approved projects to the districts;
- the district councils endorse the projects; and
- the UWA releases the funds to the sub-county governments.

Table 8 - Summary of revenue sharing by protected areas up to 30th June, 2006 (Million Uganda Shillings)

| Wildlife Protected Area | Amount Paid Up to June 30 th June 2006 | Amount on Account as of 30 th June 2006 | Total Revenue sharing Amount as of 30 th June 2006 |
|-----------------------------------|---|--|---|
| Bwindi Impenetrable National Park | 190.2 | 11.4 | 201.6 |
| Mgahinga Gorilla National Park | 28.8 | 11.5 | 40.3 |
| Lake Mburo National Park | 104.8 | 16.7 | 121.5 |
| Queen Elizabeth National Park | 393.2 | 204.4 | 597.6 |
| Rwenzori Mountains National Park | 15.5 | 33.6 | 49.1 |
| Kibale National Park | 44.0 | 66.2 | 110.2 |
| Semuliki National Park | 4.6 | 6.6 | 11.2 |
| Murchison Falls National Park | 259.4 | 434.8 | 694.2 |
| Mount Elgon National Park | 15.0 | 19.2 | 34.2 |
| Kidepo Valley National Park | 0.0 | 6.2 | 6.2 |
| Toro/Semliki Wildlife Reserve | 0.0 | 5.1 | 5.1 |
| Katonga Wildlife Reserve | 0.0 | 1.1 | 1.1 |
| TOTALS | 1055.5 | 816.8 | 1872.3 |

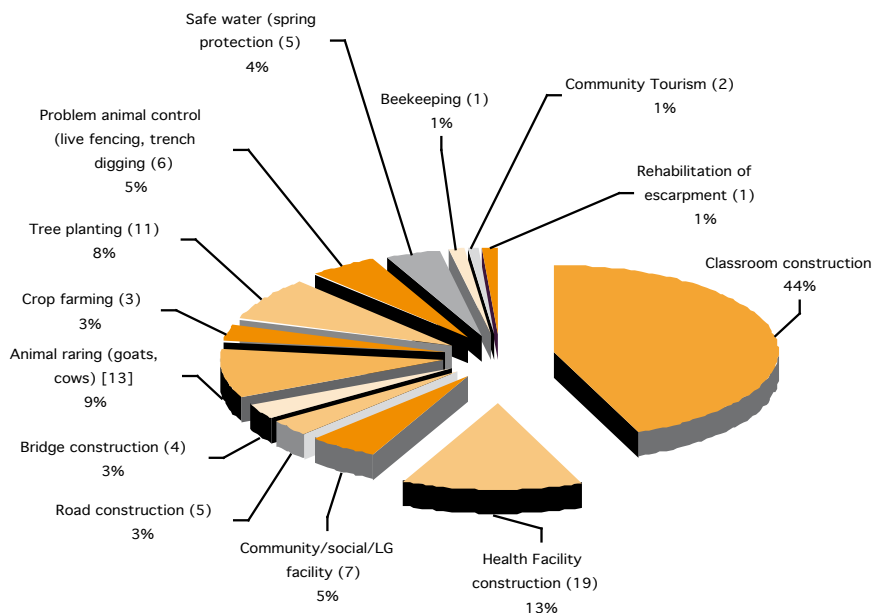
Source: UWA (2006)

Virtually all projects funded under the UWA Revenue Sharing Programme are community projects such as schools, health centers and roads. There is a noticeable absence of group, household and individual persons' projects funded to date (Figure 3). According to information gathered by Mutebi (2004), most of the revenue sharing money was used to supplement ongoing local and central governments' projects such as health units, school classrooms and roads, which otherwise cost much more money than the UWA Revenue Sharing Programme can provide. Hence, whereas the projects supported may reduce the community-related financial demands, they do not necessarily contribute to the realization of the objectives of revenue sharing because:

- the conservation value of infrastructure constructions such as classrooms, roads and health centers cannot be worked out and evaluated; and
- the projects do not put money in the pockets of individual men and women for livelihood improvement nor do they compensate households or communities that endure recurring destructive incidents such as wildlife crop raiding. This may limit the impact

of the revenue sharing programme on community behavior and attitudes towards conservation of resources in the wildlife protected areas.

Figure 3 - Pie chart showing the nature and related percentage cost of projects funded by UWA's revenue-sharing program in eight national parks in 2002/2003



Source: Mutebi (2004)

According to the UWA (2006), the revenue sharing programme continues to present a number of challenges which ought to be addressed to realize more effectiveness.

- Although sharing revenue generated from PAs with surrounding communities is a potential means for increasing benefits from wildlife management and improving relations with the people, there is a challenge of developing programmes that will ensure fair and just distribution of benefits from Protected Areas (PAs) to local communities and solicit their support to ensure long-term survival of these areas.

- The uniqueness of this fund is that it depends on tourist visitations

to a protected area. As long as tourists keep coming to Uganda, the revenue sharing account will never dry up. Twenty percent of the entry fee (gate collection) to a protected area paid by each tourist is credited to the revenue sharing account of that specific protected area whose signatories include local residents. National parks and reserves that have no tourist visitations have not had any revenue sharing (Table 8)

- International tourism is normally influenced by the exogenous factors such as economic recess in countries of origin, which are beyond the control of the Government of the Republic of Uganda.
- Local government financial regulations require that all procurement of goods and services above the threshold values must be done in accordance to the laid down financial procedures and public policies (e.g. through normal procurement/tendering process). The local communities are concerned that tender quotations are usually higher than local purchases and feel the RS projects should not be implemented in line with this, as more often the shared revenue is always small.
- Revenue sharing needs more integration in the district planning, accounting and implementation processes to avoid unplanned and ambiguous projects. Local governments regard revenue sharing funds as UWA funds and, therefore, expect UWA to spearhead implementation and monitoring of revenue sharing projects. This means that local governments have yet to assume ownership of the fund as originally expected.
- There are indications that the UWA Revenue Sharing Programme is not yet fully understood within the implementing local government systems and even within the communities. This could partly be due to the changing composition of councils after every election. Most of the councilors who have been sensitized on the programme fail in their re-election bids. This therefore requires continual sensitization of these leaders whenever elections take place to re-orient the new councilors to UWA programmes within the districts.
- There is a general complaint that the revenue sharing funds do not effectively reach the targeted communities in the very

parishes where they are disbursed. More often, it is reported that communities far away from the boundary take the lion's share and yet they incur very little or no costs of conservation of the protected areas.

In conclusion, much work has gone into developing a derivation modality and formula as far as wildlife protected area are concerned. However, a few key issues pertain:

- the revenue sharing programmes relate to protected areas under the jurisdiction of the UWA. Arrangements are also needed for community wildlife management areas and the rest of the wildlife estate;
- basing communities share of revenues on entrance fees is inadequate where the number of tourists going into a park is restricted for ecological reasons. This certainly is the case for gorilla tourism where the number of tourists visiting a family of the Mountain Gorillas is restricted to 6-8 people per day while the number of habituated families (those which tourists are allowed to visit) is very few – about 5 in Mgahinga and Bwindi national parks. UWA has recognized this fact, hence the US\$ 4 surcharge on gorilla permits;
- Not only is the amount of money involved in revenue sharing small, it is also subjected to multiple taxation. UWA pays 18% value added tax (VAT) on its entrance fees revenue, among others. Local governments are also expected to deduct VAT and a 6% withholding tax on behalf of the Uganda Revenue Authority (URA) prior to implementation of approved projects. Then the contract also pays VAT on material purchases needed for construction.
- The fact that over half of the revenue sharing monies are spent on subsidizing other government programmes raises the question of spending efficiency. Constructions of school classrooms, health centers and rural roads are catered for under the central governments School Facilities Grant (SFG), health sector strategy and feeder roads programmes, respectively. Hence there should be no incomplete projects, other things being equal. To the extent that revenue sharing funds are used to complete such projects, one can assume that the funds meant to be incremental benefits for the communities end up paying for inefficiency in those central government programmes.

4.4 Minerals

The Uganda minerals sector was once very active with Kilembe Copper Mines Ltd alone employing thousands of people. The mining industry collapsed in the 1970s and has yet to regain lost ground. Mineral exploration is on the upswing. However, production at significant levels is yet to begin save for the two cement manufacturing companies.

The Mining Act 2003 provides for a derivation formula. The Act provides for the payment of 3% royalty. The 3% royalty is allocated as follows: 80 % to the central government; 17% to the local government(s) of the region of derivation; and 3% to landowner(s) including local communities if they are the owners of the land.

At the prevailing low levels of mining, there are no significant funds going to the communities. The Ministry of Energy and Mineral Development (MEMD) expects the value of mineral production to reach to at least US\$ 230 million per year in the medium-term. Therefore, should the projected level of production be reached, it would result in royalty revenue of about US\$ 6 900 000 per year. The value of local government and community (assuming they are the landowners) to reach to US\$ 1 380 000 per year, of which: local governments share would be US\$ 1 173 000; while communities and other land owners would get US\$ 207 000.

The immediate area of contention is whether the 3% royalty is fair. The second issue is the rationale of giving landowners only 3% of the 3% royalty? The first instinctive reaction is for the royalty levels to be increased. Second, rather than have a single rate for all minerals it should vary with the specific minerals concerned. Third, the split between the landowner (community) and the district government exceedingly favors the latter. There is no justification for this unless the land is privately-owned.

The foregoing would appear to call for a review of the Mining Act 2003 and making the necessary adjustments to ensure that the communities' share of the derivation fund is a fair and equitable one. The reason being that as things stand if mineral exploration is on private land, the surrounding communities receive no derivation fund. If the communities own the land, the 3% share of the 3% royalty (or 0.09% of total revenue) is very small.

5.0 Relevant International Experience

A review of international experiences of sharing natural resource revenue reveals that a diverse range of mechanisms are employed. These mechanisms appear to vary from country to country and from one natural resource sector to another between and within countries. The following is a summary of African and other worldwide experiences in the forestry, wildlife and mineral sectors.

5.1 Forest Resources

Ghana¹⁵

By 2003, Ghana was planning to introduce procedures for the disbursement of revenues to ensure equitable distribution of benefits to communities, resource owners, and farmers as a way of facilitating the effective participation of all relevant stakeholders in the sustainable management and development of the resource. Table 3 shows the distribution of stumpage in 1991 and 1999. While government and landowners received 5% of the stumpage in 1991, this ratio had risen to 13% by 1999.

Table 9 - Stumpage and its distribution in Ghana, 1991 and 1999

| | 1991 | 1999 |
|-----------------------------------|------|------|
| Estimated Stumpage (US\$ Million) | 28 | 42 |
| Distribution of stumpage | | |
| • Government & landowners | 5% | 13% |
| • Loggers | 54% | 5% |
| • Processors | 41% | 82% |

Source : Agyeman *et al* (2003)

Another fiscal policy constraint is the inequitable distribution of the economic rent for timber, which has led to resource under-valuation. The distribution of economic rent was skewed in favor of the industry and state forest institutions, with landowning communities receiving negligible amounts with unacceptable delays (sometimes up to about two years) through a system that was impracticable and lacked transparency.

The Ministry of Lands and Forests (MLF) wished to initiate a review of forest taxation and fiscal measures, which will engage key stakeholders and lead to a negotiated agreement between the wood processing industry and the government for the reform and rationalization of the fiscal regime that is consistent with sustainable forest management. It was hoped that the initiative would also facilitate the development of an efficient and competitive wood industry and introduce transparency and fairness in the sharing of forest rent among constitutional stakeholders while ensuring adequate revenue for financing forest services and an enhanced sector contribution to government revenues.

Cameroon¹⁶

In Cameroon, the state, the councils and neighboring communities share revenue from annual forest royalties as follows: 50% for the state, 40% for the councils, and 10% for the neighboring communities. It is instructive to remember that forest products constitute the second biggest export of the country next to oil and gas. Furthermore, Article 3 of the Order (Order No. 122 of April 29, 1998) stipulated that revenue reserved for local village committees will be used exclusively for the provision of social services such as water and electricity supply, construction and maintenance of bridges and roads, works of art, sports equipment, school and health infrastructure or purchase of medical drugs, and any other services the community decides are in its interest. Table 10 shows the structure of forestry revenue collected covering the fiscal years 1991/92 to 2002/03.

On an annualized average basis, one can see that the central government receives about 82.4% of total revenue (representing 50% royalty; and 100% of felling tax, other taxes, forestry admission fees, auction sales and penalties). On the other hand, neighboring communities receive about 2.7% of total revenue i.e. 10% of royalties); while councils receive about 10.9% of total revenue (i.e. 40% of royalty).

**Table 10 - Cameroon forest revenues, 1991/92 to 2002/03
(in millions of CFAF)**

| | TOTAL AMOUNT | ANNUALISED AVERAGE | AVERAGE PERCENTAGE |
|---|-----------------------------|-----------------------|-----------------------|
| | (millions of CFA Francs) | | |
| | 1991/1992 | 2002/2003 | |
| Felling tax | 44,371 | 3,698 | 24.0% |
| RFA (Royalty) ^(a) | 50,385 | 4,199 | 27.3% |
| Other taxes | 38,424 | 3,202 | 20.8% |
| Forestry admission fees ^(b) | 8,157 | 2,719 | 17.7% |
| Auction sales ^(b) | 2,204 | 735 | 4.9% |
| Penalties ^(b) | <u>2,467</u> | <u>822</u> | <u>5.3%</u> |
| | 146,008 | 15,375 | 100.0% |

(a) - shared between central government (50%), councils 40%, & neighboring communities 10%.

(b) - recorded the years 2000/01, 2001/02 and 2002/03 only.

Cambodia¹⁷

Forests contribute about 4% of Cambodia's gross domestic product (GDP). Revenues from forests came from: forest concessions; logging coupe for domestic use through bidding; NTFPs; fines for forest offences; concession lands and road construction in forest areas; and planted forests. Royalty payments are made direct to the national budget while concessionaires pay an additional premium which goes to the National Forest Development Fund.

There are no provisions for sharing the concession funds which goes directly into the central government treasury with communities neighboring forests. However, the Ministry of National Economy and Finance and the Ministry of Agriculture, Forestry and Fisheries of the Royal Government of Cambodia established an inter-ministerial commission in 2002 to set up a Forest Revenues Management System. An operational manual was produced but mainly dealt with the process of streamlining revenue collection procedures.

Indonesia¹⁸

As defined in Regulation No. 34 of 2002, Paragraph 3, Section 48, there are three basic fees applicable to the operation of forest concessions

¹⁷Obtained from San & Net (2003)

¹⁸Obtained from Sarsito et al (2003)

(Table 11).

First, there is the Forest Utilization Business Permit. The revenues realized are shared as follows: 80% is allocated to the Region of origin (16% to the Province and 64% to the producing District); and 20% to the Central Government.

Second, there is the Reforestation Fund. Here, fees are charged on the basis of volume (m³) of wood harvested. Of the amount collected, the provinces receive 40% while the central government gets 60%.

Third, there is the Forest Resource Tax. This constitutes essentially royalty on logs. Of the revenues collected, 80% goes to the Region of origin (16% to province; 32% to the producing Kabupaten; and 32% to other Kabupatens); and 20% to the central government.

From the above description and as summarized in Table 11, the regions (made up of provinces and districts) get the largest share (80%) of forest revenues except for the RF (where the share is 40%).

Table 11 - Allocation of forest revenues in Indonesia

| JURISDICTION | FUB | RF | FRT |
|---|-----|--------------------|-----|
| Central Government | 20% | 60% | 20% |
| Region | 80% | 40% ^(a) | 80% |
| <i>Of which:</i> | | | |
| • Province | 16% | 40% | 16% |
| • Producing district | 64% | -- | 32% |
| • Other districts | -- | -- | 32% |
| (a) - funds go directly to the provinces without passing through regional governments | | | |

Source: Sarsito et al (2003)

Honduras¹⁹

The forest fiscal system in Honduras has developed through stages. Between 1974 and 1991, the Forest Department Corporation (COHDEFOR) was authorized to oversee fee collection, state investments, forest management, purchase and sale contracts, domestic forest product marketing, and exports. From 1992 to

¹⁹ Adapted from World Bank (2003)

²⁰ Adapted from World Bank (2003)

2002 productive and commercial activities were separated, with COHDEFOR the owner of national forests; while timber sold through public action was administered by COHDEFOR. By 2003, Honduras was in the process of simplifying its forest legislation and reforming the forest fiscal system to promote protection of environmental services, incentives for reforestation, increased value-added, non-timber forest product promotion, and use of smaller wood diameters. Unfortunately the reforms of forest fiscal systems appeared silent on community participation in the share of benefits.

Nicaragua²⁰

Up to 2002, the forestry sector in Nicaragua had been challenged by policy with contradictory goals for conservation and industry, resulting in illegal activity that constituted up to 70% of all logging. In June 2003, new legislation was passed establishing a system for conservation and sustainable development that was to help address the chaotic situation in the sector. After that there was only one law for forests, the forest resources returned to landowners, while forest administration was decentralized. The new law encourages export through fiscal incentives to help develop legal operations. The incentives exempt plantations from municipal and sales taxes and grant up to 100% tax deductions for reforestation costs. On the other hand, the forest fiscal policy incentives and objectives created controversy as regards the national fiscal simplification process underway. One of the challenges that remained was to improve the registration and control system to combat illegal logging. However, the new law appears silent on the issue of community benefits, in particular sharing of forest revenues.

Brazil²¹

Although 70% of the Amazon is publicly-owned, Brazil does not have a concession system. The country is assessing its forest fiscal policy in the context of the natural forest program (NFP). While plantations account for 1% of Brazil's forest area, they produce 60% of industrial roundwood. Integrated businesses such as pulp and paper are subject to fewer taxes and do not pay for forest resource use. As late as 2003, in Brazil, paying for forest resource use is a new concept, and earlier efforts to improve sustainability in the forestry sector through regulations and monitoring and assessment have resulted in land conversion for agricultural use to avoid regulations.

Southern Africa Development Community (Malawi, Tanzania & Zimbabwe)²²

Village-level committees in some southern African countries – such as the Village Natural Resource Management Committees (VNRMCs) in Malawi, the Village Forest Committees (VFCs) in Tanzania and the Resource Management Committees (RMCs) in Zimbabwe – are supported by government forestry departments, and their members are elected by the communities.

In Malawi, the committee is allocated revenue for various community development initiatives. For example, the initiative and success shown by the community in Mangweru has resulted in the Forestry Department maintaining a low profile and not demanding any share in the benefits. In contrast, in Chimaliro, the state takes a portion of the benefits. Under the co-management arrangement for Chimaliro Forest Reserve, it was agreed that 70 percent of the revenue from forest products would go to government and 30 percent to the community. On customary land, this is reversed, with 80 percent and 20 percent of the revenue accruing to the community and government, respectively. The removal of restrictions on the use of the forest reserve and the various training sessions aimed at building the capacity of community organizations in Chimaliro resulted in a significant improvement in attitude. However, there was dissatisfaction with the Forestry Department because of delays in ratifying regulations drawn up by the community. There was also a general perception that certain influential members of the community were receiving more than their fair share of the benefits.

In Tanzania, almost all the revenue from permits to collect forest produce and fines go to the village. As in Malawi, the result is that there are very positive attitudes towards CBNRM in Tanzania.

In Zimbabwe, the situation is different. In Gokwe, for example, the CBNRM scheme was not viewed favorably. The Forestry Commission has a long history of conflict with the local people in this area and is unpopular because of its policies and enforcement regime. Many villagers regard the state forests as originally theirs, and are unanimous that the forest should be returned to village ownership and control.

²¹Adapted from World Bank (2003)

²²Mabugu & Mugoya (2001)

5.2 Wildlife Resources

Countries where wildlife constitutes an important resource generating revenue from extractive (hunting) and non-extractive (tourism, photography, etc.) activities have some provisions for a share of benefits with the surrounding communities.

Nepal

In 1994, the King Mahendra Trust for Nature (KMTN), in partnership with the Biodiversity Conservation Network (BCN) and World Wildlife Fund – United States (WWF-US), led a successful effort to draft and pass legislation that would require the Nepalese government to share 30 to 50% of taxes generated by tourism with local communities. The pilot implementation of this legislation was in the villages of Bagmara and Kumrose on the foothills of the Himalayas adjacent to the Royal Chitwan National Park (RCNP).

The two villages each set up User Group Committees (UGC) to decide how this revenue would be of most value to the villages. As of 1998, ecotourism revenue shared with the villages of Bagmara and Kumrose (750 km²) amounted to approximately US\$ 400,000 per year and was used for various local development projects (Bookbinder et al., 1998).

The Nepalese government viewed this as a success and made subsequent efforts to spread these benefits. As a result, all other 36 villages around RCNP have formed UGCs to implement their own revenue sharing projects.

Pakistan

Since 1999, the Pakistani government, with the support of the World Conservation Union, has been implementing the community-based Mountain Areas Conservancy Project (MACP) around the global biodiversity hotspots of Western Himalayan and Hindu Kush mountain ranges. MACP has three major objectives covering an area of 16,300 km² and a population of 277,000: a) empowering, organizing and enhancing the capacity of local communities to conserve biodiversity; b) enhancing the value of biodiversity for the local people; c) creating a policy, legal, and financial framework that supports community-

based conservation.

Over three hunting seasons (2002-2004), MACP generated income amounting to US\$ 728,813. Eighty percent of this income was shared with adjacent communities (IUCN, 2006).

Tanzania

According to Mabugu & Mugoya (2001), a variety of wildlife revenue sharing arrangements exist in Tanzania:

- Those between the central government and local authorities on tourist hunting.
- Those between the central government and certain communities.
- Those in which local authorities currently collect and keep all fees from game viewing in potential Wildlife Management Areas (WMAs). The central government is not yet directly involved in this new activity in potential WMAs.

The following revenue sharing arrangements currently exist for revenues generated from hunting operations in the game reserves, Game Controlled Areas (GCAs) and open areas (Mabugu & Mugoya, 2001):

- Hunting Block Fees (also known as concession fees): each block is US\$7,500. The sharing arrangement is determined by the Treasury. Currently, 25 percent goes to the Tanzania Wildlife Protection Fund (TWPF) and 75 percent to the Tanzanian Treasury.
- Game License Fees: this is effectively a trophy fee per animal (paid after the client shoots the animal). The fee is passed to government. Of the amount paid, 25 percent goes to the TWPF, the Wildlife Division is allocated 26 percent, the district councils get 12 percent, and 37 percent is retained in the Tanzanian Treasury. Under this arrangement, the central government in one form or another (including revenue transferred to the TWPF) gets 88 percent of total revenue collected while respective local authorities are allocated a mere 12 percent.
- Conservation Fees: These are pegged at US\$100 per hunter per day. Currently all of it is paid to the TWPF.
- Other fees: permit, trophy handling, and hunter fees are all paid to the TWPF.

As shown in Table 12, a recent revenue sharing proposal around WMAs in Tanzania suggests the primary beneficiaries of WMA revenue should be communities/villages and that the central and district governments should be secondary beneficiaries (Christophersen et al., 2000).

Table 12 - Revenue allocation in Tanzania's Wildlife Management Areas

| REVENUE OPPORTUNITIES | VILLAGE ASSOCIATION | CENTRAL GOVERNMENT | DISTRICT GOVERNMENT |
|-----------------------|---------------------|--------------------|---------------------|
| Hunting block fees | 100% | 0% | 0% |
| Conservation fee | 100% | 0% | 0% |
| Game fees | 60% | 30% | 10% |
| Res. hunt game fees | 100% | 0% | 0% |
| Tourism | NA | 20% | 10% |
| NFM | NA | 20% | 10% |
| Collection center | NA | 20% | 10% |

Source: Christophersen et al., (2000)

Botswana, Namibia & South Africa²³

In Botswana, Namibia and South Africa, there are corporate entities formed by all residents or rights holders within a designated area. These Trusts, Conservancies or Communal Property Associations elect their own management committees and are governed by legally recognized constitutions. In Namibia and South Africa, no portion of the revenue is sent to government, while in Botswana only 4 percent of revenue generated has to be paid to the district council as a resource royalty. Residents decide how revenues should be distributed. In the case of Namibia, a small portion of the income is usually retained by a management committee to meet its running costs (administration and personnel costs for game guards, resource monitors, etc.).

Zambia²⁴

In Mumbwa Game Management Area (GMA), 35 percent of the income is returned to the community for development projects. Local leaders are primarily responsible for determining how the funds

will be spent, and development activities have tended to cluster around the chiefs' palaces. Previously, only 40 percent of the income from Lupande GMA in Zambia reached the community, but recent restructuring has resulted in about 80 percent of the revenue going directly to the Village Action Groups, whilst the remainder is shared by the Area Development Committees (4 percent), chiefs (6 percent) and the Local Leaders Committee (10 percent).

Zimbabwe²⁵

In Zimbabwe, a portion of the revenue from hunting leases in areas in which CAMPFIRE activities are underway is retained by the rural district council for use at its discretion. A portion of the revenue is channeled directly to the community. For instance, Binga Rural District Council in the Zambezi Valley retains 50 percent of the total revenue, 15 percent as a levy and 35 percent as a management fee.

5.3 Minerals

Philippines

The Australian Western Mining Company (WMC) and Normandy Mining have adopted a formal Indigenous Peoples Policy that deals directly with communities instead of relying on a formal central or local government role (Bennett, 2002). This policy was the basis by which WMC established a relationship with the Bla'an community around its copper mining interests in the southern Philippines.

As part of its bilateral agreement with the Bla'an, WMC created a fund using mining royalties and funded the Bla'an Community Development Program. The agreement required WMC to pay any compensation, share mining royalties and fund community development initiatives. Its stated aim was to promote the general welfare and long-term cultural and financial independence of the Bla'an. In return, the Bla'an were expected to use the fund solely for community development projects.

This bilateral agreement was possible because the Philippines Department of Environment and Natural Resource Administration Order 63 of 1991 requires foreign mining companies to recognize and

²⁴Extracted from Mabugu & Mugoya (2001)

²⁵Extracted from Mabugu & Mugoya (2001)

respect the rights of indigenous peoples. Additionally, the Philippine Mining Law of 1995 provides for prior consent of mining operations in ancestral lands and for payment of a royalty to indigenous communities to finance a trust fund for their economic well-being (McPhail & Davy, 1998). However, unless the indigenous communities have registered their claim to ancestral land, they have no right to claim the royalty.

Australia

Another example of a corporate-community revenue sharing agreement is that between Rio Tinto's Hamersley Iron and the Gumala people of Western Australia. In 1997, both parties signed a Land Use Agreement for the development of the Yandicoogina Iron Mine. The agreement detailed Hamersley Iron's obligations to protect Gumala heritage and culture, as well as support to local economic development, by providing US\$ 60 million over 20 years in the form of community development projects, training, employment, and business support (Bennett, 2002).

Indonesia

In Indonesia, mining revenues are paid directly by the mining company to the central government as part of the bilateral agreement between the two parties. Although the agreement always refers to an Indonesian law that requires a portion of the royalties paid to government be returned to the province from which the minerals were extracted, this rarely occurs (Bennett, 2002).

In realization of this and the importance of good relations with the communities around their mining operations, several mining companies in Indonesia have voluntarily established revenue sharing schemes that work directly or indirectly with local governments. For example, Freeport McMoRan Copper and Gold Inc. has created the Freeport Fund for Irian Jaya Development, which pays out the value of 1 percent (US\$ 80 million dollars between its inception in 1996 and 2002) of its royalties to local communities for economic development around its mining operations. It also has social investments in infrastructure to compensate landowners for loss of land.

Bolivia

The recently enacted mining code in Bolivia aims to balance land ownership rights for surface and subsurface resources with the needs of communities and the state (McPhail & Davy, 1998). Bolivia is divided into 9 departments and 305 municipalities. Under the mining code, progressive fees apply to the use of land (for exploration and mining) from the point of concessions being awarded. The municipalities within which mining takes place receive 30 percent of those fees.

Of all taxes paid by mining or oil companies (including income, corporate, value added tax, transaction, withholding, and so on), 25 percent is allocated to municipalities, who have the right to allocate finances to social and community development or other projects. The only constraint is a 15 percent ceiling on administration charges. Furthermore, to encourage investment by mining and oil companies in social development initiatives, voluntary contributions by companies can be deducted from taxes, provided that they do not exceed 10 percent of the companies' cumulative investment and that they meet certain sustainable development criteria. For example, they must be long-term projects involving communities, and the municipalities must provide 20 percent counterpart funds to foster ownership and long-term sustainability.

6.0 Challenges of Establishing Derivation Funds in Uganda

6.1 Political Will

The largest proportion of the annual revenue of GoU is from taxes. There is very little non-tax revenue. The total revenue itself is very small. Typically development partners contribute over 50% of annual budget requirements. Hence it would appear, on the surface at least, that the current situation does not encourage keen political interest in non-tax revenue. This is unfortunate. Uganda's economy to a large extent depends on natural resources – land holdings, wildlife tourism, fisheries, forestry and minerals and hopefully in the near future oil and gas, since there are indications that there could be significant hydrocarbon deposits of commercial value. It is hypothesized here, without testing, that the main reason why non-tax revenue is small in absolute terms is the under-valuation of natural resources. Typically, a large share of the resource rent is captured by middle agents and not the resource owner. User fees have been captured through royalties – often arbitrarily fixed with the exception of the timber auctioning process introduced by the NFA. Therefore, so long as non-tax revenues remain meager compared to tax revenues and so long as politicians are not aware of the potential to increase natural resources non-tax revenue, the political will for derivation funds will remain lukewarm at best. The fiscal policy of the GoU is largely silent on non-tax revenue from natural resources.

6.2 Governance Issues

The Constitution of the Republic of Uganda, the National Environment Act and the Local Governments Act provide for the decentralization of environment and natural resource management. However, ownership is a different matter. Most of the forest and wildlife resources, capture fisheries, minerals, and oil and gas are owned by the central government. The sub-national governments have really no say on matters of ownership although they are legally mandated to manage the resources through the process of decentralization. Furthermore, in some cases such as wildlife and forestry, government agencies such as the UWA and the NFA capture the whole economic rent generated by these resources and none goes to the Consolidated Fund. The UWA and the NFA are in effect state-owned enterprises. Unfortunately, in terms of fiscal policy in general and natural resources

rents, they seem to be un-regulated or their roles un-defined.

For example, the NFA is under no obligation to share part of the forestry resource rent it captures with the communities of derivation areas. Even with wildlife-based tourism, although the UWA is legally mandated to remit 20% of entrance fees to the communities, the basis upon which this percentage was arrived at is not clear. What is known is that before the UWA was formed the then Uganda National Parks (UNP) tried a number of formulas – 20% of gorilla permits and 12% of all park revenues. From the lessons learnt out of the operations of the UNP, the UWA settled for 20% of entrance fees only. There are two dilemmas here – one is what the socially equitable percentage should be, a subject begging for in-depth economic analysis including aspects of service pricing; and the second, and probably more important, is the moral question of whether an entity which cannot at the moment support its own level of expenditure and has to rely on the GoU and development partners for subventions and programme support is in a position to share with the communities of derivation.

As far as capture fisheries is concerned, the Draft Fisheries Bill proposes a 2% levy on fish exports largely to finance the proposed Fisheries Authority. Hence, here again, there will be no funds for the communities of derivation unless something is done before the Bill becomes law.

Where there are clear opportunities for derivation funds are the minerals and oil and gas sub-sectors, principally because the royalty revenues are potentially large and the costs the communities of derivation will incur equally enormous. The royalty revenues from minerals, and the potential production sharing agreements revenues from oil and gas, will go to the GoU some of which can be allocated as derivation funds to benefit the communities in the areas where these activities do, and are likely to, take place. The questions that beg answers are: what is the optimal percentage of royalties or production sharing percentages; and what would be fair allocations of derivation revenues?

6.3 Transboundary Natural Resources

A number of the natural resources straddle sub-national administrative boundaries. For example, part of Echuya CFR is in Kisoro District and the other in Kabale District. Bwindi Impenetrable National Park is shared between Kisoro, Kabale, Kanungu and Rukungiri districts. Murchison Falls Conservation Area is shared amongst Masindi, Apac, Gulu and

Nebbi districts. Mount Elgon National Park is shared amongst Mbale, Manafwa, Budadiri, Sironko, Kapchorwa and Bukwa districts. Lake George is shared amongst Kasese, Kamwenge, Ibanda and Bushenyi districts. Lake Kyoga is shared amongst: Mukono, Pallisa, Nakasongola, Iganga, Soroti, Kaberamaido, Amolatar and Apac districts. The list goes on. The paramount question is, how should the proportion of resource rents captured meant for sub-national governments be shared amongst the different administrative units to address the issue of inter-jurisdictional equity. While both the Constitution and the Local Governments Act provide for sub-national administrative units to come together for purposes of development, the two legal documents are silent on the modalities for the share of resource rents – if at all there is something to share.

6.4 Funds Flow

In addition to having funds available for the communities of derivation, the route that the money takes to reach the ultimate beneficiaries is equally important. In several of the international experiences reviewed, funds are specifically allocated to the local communities and governments. This arrangement is suited to the establishment of a community-targeted derivation fund. Some of the situations in Uganda are at variance with this arrangement. Whereas the communities of derivation are expected to receive 20% of the entrance fees charged to the tourists, the wildlife and local government laws require these funds to go through the respective district treasuries although in practice the UWA retains the funds and disburses to the respective Sub-Counties for approved projects (i.e. conditional grants). Otherwise it is at this point that leakage in form of appropriation of the funds by the district elites for expenditures that are not directly related to the welfare of the communities of derivation occurs. Instead the funds end up being spent on unrelated expenditure items such as sitting allowances for district council members. One possible way out of this dilemma is to have sectoral conditional transfers. The other is to establish a derivation fund in the name of the community or communities of derivation and the share of entrance fees transferred to these specific derivation funds.

6.5 Standardization

It would be tempting to try and come up with a uniform system for setting up derivation funds that would be applicable to all natural

resources sub-sectors. Unfortunately, the preceding sections of this report suggest the option of having a single standard derivation fund is not feasible for a number of reasons.

First, the ownership arrangements differ somewhat. While forestry and wildlife, and soon to be followed by fisheries are legally owned by the people of Uganda and held in trust by Government, it is the state-owned agencies which are charged with the responsibilities of managing the resources. Second, mineral resources on the other hand, are managed directly by the GoU. Third, while there is evidence of significant hydrocarbon deposits, neither has production started nor are there derivation modalities in place. Fourth, it may be that at their current levels of revenue (economic rent) generation, exploitation of some resources may preclude the establishment of derivation funds. Examples are forestry and wildlife which use the economic rent captured to finance expenditures related to conservation activities. Unfortunately, these revenues do not meet even 50% of those expenditures (for wildlife it is 25%).

Hence it would be prudent to explore the feasibility of establishing derivation funds on a case by case basis recognizing that each natural resource has its own peculiarities.

6.6 Deriving Fair Distribution

According to Poteete (2004), resource scarcity intensifies distributional conflicts and undermines the capacity to take actions to resolve conflicts. This begs the question: what is equitable? Poteete (2004) suggests that shares based on distribution reflect and reinforce an underlying distribution of wealth that is often unequal and, in the eyes of many, inequitable. According to Aluko (2005), in the case of Nigeria also applicable to Uganda, the governments (federal, state, local) control the resources, and the communities/individuals 'derive' benefits therefrom from the government. Subsequently, resource revenue allocation is from higher levels of governance to lower levels, and special derivation funds to certain selected communities are based on high-value derivations therefrom (Aluko, 2005). In other words, to a large measure, central governments determine what a 'fair' distribution of resource rents is. Local governments have hardly a role. According to Poteete (2004), if local authorities are not accountable to local users of natural resources or if they exercise little direction over the management of natural resources, there is

little reason to expect formal decentralization of natural resources management to improve either the sustainability of management or equity in the distribution of costs and benefits.

There are two key variables that ultimately determine the proportion taken as the derivation fund. These are: the proportion of total revenue removal through memoranda items (m); and the proportion removed via transfers to certain dedicated accounts (t). Therefore, when:

$$a = 1 - m - t$$

where a – share of resource revenue in total central government revenue

then resource control and the derivation amount to the same thing for d (share taken as derivation fund) fraction. If, on the other hand,

$$1 - m - t < a$$

then derivation is not to the advantage of the resource producing areas.

In general, if under full resource control, w is the central government tax rate, then it is only when

$$a(1-w) > (1-m-t)d$$

that resource control is advantageous.

7.0 Proposed Derivation Models for Uganda

7.1 Renewable Natural Resources

The examples of forestry and wildlife indicate that the royalties earned by the state-owned enterprises—the NFA and the UWA—are insufficient to cover their own operations and hence sharing revenue will simply mean they must request the central government to make up the shortfalls. The UWA pays 20% of entrance fees to the local governments. Many critics have charged that this amount of derivation is too little. For example, taking gorilla tourism as an example, a tourist pays US\$ 40 entrance fees and US\$ 375 for a gorilla tracking permit. So, out of the US\$ 415 received by the UWA, the district(s) in which the national park is located receive US\$ 8 (representing 20% of entrance fees of US\$ 40), or 1.9% of total revenue due to the UWA! Others counter that it makes little sense for the UWA which cannot meet its own budget requirements to even consider making any payment at all, however small the amount.

Notwithstanding the legal provision of the Wildlife Act for a 20% share of entrance fees, a reasonable compromise would be to revisit the basis upon which royalties (forestry) and tariffs (wildlife) are arrived at. It calls for revising royalties and tariffs upwards to accommodate specific requirements for derivation funds.

The NFA has introduced the auction process for selling its forest products and services. The auctioning has been successful in raising royalties to stumpage values or true economic rent. Taking timber as an example, the following formula specifies the basis for the NFA to set a reserve price for auctions.

$$ER = [Ps - (Lc + Tc + Pc) - (\pi + r)]$$

where ER - economic rent (royalty or stumpage)

Ps - selling price of sawn timber (lumber)

Lc - harvesting cost of trees (raw forest product)

Tc - transport cost to processing centre

Pc - processing costs

π - allowance for normal profit

r - risk premium

and $(Lc + Tc + Pc)$ represents the sum of costs, C.

For the UWA, economic rent is arrived at as the selling price for services less the cost of service delivery less allowances for profit and a risk premium. That is:

$$ER = [Sp - C - (\pi + r)]$$

where Sp - selling price for services and other variables as defined earlier

The suggestion then is that a fixed percentage should be added to the economic rent to allow for a derivation fund. That is, for forestry the adjusted equation would be

$$ERF = [Ps - (Lc + Tc + Pc) - (\pi + r)] * (1 + i)$$

and for wildlife

$$ERW = [Sp - C - (\pi + r)] * (1 + i)$$

where ERF - adjusted economic rent for forestry product

ERW - adjusted economic rent for wildlife service

i - percentage (expressed as a fraction) charged as derivation fund.

Consequently for wildlife, the tariff tourists would pay would be $SP (1 + i)$. For forestry, the reserve price the NFA would specify for the auction process would be equal to $ER (1 + i)$. The appropriate derivation percentage (i) would depend on negotiations between the beneficiaries and the authorities. Second, agreement will also have to be reached on the split of the derivation fund between local governments and communities. However, what is certain is that the funds for communities of areas of origin should be separate from the ones for the respective local governments; and this in turn may call for amendments to the prevailing sectoral laws.

7.2 Non-Renewable Natural Resources

Unlike renewable natural resources where revenue flows to a government parastatal, the non-renewable resources are controlled directly by the central government for now. Hence, all revenues flow to the national treasury.

For the mining sub-sector, the derivation fund is provided for in the

Second Schedule of the Mining Act. It provides for the following allocation of royalties: central government 80%; local government 17%; and land owner(s) 3%. Where minerals occur on community-owned land, the 3% royalty share can be assumed to be that community's derivation fund. However, if the land is privately-owned, there is no derivation fund for the neighboring communities who inevitably will bear a share of the costs of the development in terms of environmental degradation and other costs. In such a case, it is left to the local government in question to allocate part of its 17% share of the royalty to the neighboring community. Unfortunately, without any legal provision, it is unlikely that the local government in question will in fact provide for the community.

An oil and gas policy is being developed for Uganda. It is also expected to provide for allocation of the royalty the central government receives. Discovery of commercial quantities often have a disproportionate influence on the composition of central government treasuries. For example, in Nigeria, revenue from oil and gas accounts for 70-80% of total federal government revenue. In this case, the derivation fund would be arrived at using the following formula.

$$DF = d [R (1 - m - t)]$$

where R – total government revenue

m – fraction of central government revenue transferred through memoranda items

t – fraction of central government revenue transferred to dedicated accounts

d – fraction of Central Government Account $[=R (1 - m - t)]$ allocated to derivation fund

Therefore, after determining total central government revenue, the other considerations in order of importance are: the fraction of oil and gas revenue transfers (dedicated accounts and memoranda items); fraction of natural resources rents and royalties and the derivation fraction; the amount of the derivation fund retained by the central government less the amount given to local governments; and the amount of derivation fund retained by the central government for further hydrocarbon development.

7.3 Equity Considerations

Discussions in the earlier sections of this report showed how revenue should or could be shared between governments and with communities of origin. What emerged from the discussions is that within the Ugandan context, the revenues to be shared from the sustainable utilization of renewable natural resources are typically small and area specific. The share of revenues from forest and wildlife products and services are between the NFA and the UWA on the one part, and local governments and communities on the other. Fixed charges were advocated for derivation funds. The question is how best to allocate this fixed charge to local governments and communities. The issue is further complicated by the occurrence of the renewable natural resources over more than one jurisdiction – covering more than one district or sub-county. Overcoming vertical fiscal imbalance (VFI) is usually the reason for revenue sharing and irrespective of what might be best policy, is most frequently seen as a political issue. Consequently, the percentage of the revenue received by each level of government will most likely be decided in a political rather than economic arena. On the other hand, one may use principles of economics to establish benchmarks for equitable revenue sharing, leaving the final outcomes to be decided in a political arena.

It is proposed that where a renewable natural resource covers more than one jurisdiction, the allocation formula could be as follows: a jurisdiction's share of the revenue would be a function of the proportion of the area within the jurisdiction, population size and a bundle of social economic indicators expressed in terms of the human development index (HDI) that is:

$$R = f(X1, X2, X3)$$

where R - revenue due to the jurisdiction

X1 - proportion of renewable natural resources area in the jurisdiction

X2 - population of the jurisdiction as a fraction of the total population in the natural resource area

X3 - human development index of the jurisdiction representing a bundle of socioeconomic and environmental factors.

The size of the derivation funds from non-renewable resources (hydrocarbons and minerals) is potentially large and can have a profound effect on the national economy. According to Ahmad &

Singh (2003), inter-governmental relations in developing countries are complicated by the concentration of natural resources in particular regions. Relatively low-income levels and poor service delivery in the region of derivation lead to competing demands for re-distribution (Ahmad & Singh, 2003). On the other hand, attempts by the centre to placate separatist tendencies by sharing revenues from say hydrocarbons often do not satisfy the producing regions, exposing them to volatility of resource revenues that may endanger the minimum level of public services within their jurisdictions (Ahmad & Singh, 2003).

Taking the Nigerian case, Ahmad & Singh (2003) reported that transfers to states and local governments from the Federal Account are distributed according to a single formula. The formula uses 10 indicators, but 47.5% (40% from general allocation plus 7.5% from the revenue equalization) of the total allocation is made as a lump sum transfer. The resources are then distributed according to population, with a weight of 30%, to geographical area (10%), and to revenue effort (2.5%). The remaining 10% is allocated according to six social development indicators, namely the absolute inverse number of pupils enrolled in primary schools (2.4%), number of pupils enrolled in secondary schools (0.8%), number of hospital beds (3.0%), an index of access to clean water (1.5%) and, finally, the quantity of rainfall (1.5%). The overriding considerations are to establish minimum expenditure standards in the states and districts, having a transfer system that assures that these standards would be met, and having a central government with the ability and willingness to play the role of a buffer (Ahmed & Singh, 2003).

8.0 Conclusions and Recommendations

8.1 Conclusions

1. A review of international experiences clearly shows that natural resource managers have not given as much thought to sound fiscal regimes as they have to technical management aspects. Uganda is not an exception. Yet, there are economic, social and environmental considerations that call for more in-depth considerations of natural resources revenue sharing, as part of comprehensive reviews of fiscal regimes.
2. Although Uganda possesses a wide range of renewable and non-renewable natural resources, considerations of derivation funds suggest two broad categories – renewable and non-renewable natural resources derivation funds.
3. The revenues from renewable natural resources in Uganda largely accrue to state owned enterprises and do not enter into the national treasury except tax revenues. These SOEs on the other hand, do not generate sufficient funds to finance their own operations. Therefore, any desire to establish derivation funds calls for instituting separate charges to be added to the current levels of fees, charges and royalties. The fixed charge revenues would then be allocated to local governments and communities of the area of derivation. Where the resource straddles a number of jurisdictions, a possible allocation formula would include considerations of: the proportion of resource area; population; a bundle of socioeconomic factors (human development index); and a proxy for the environment.
4. The creation of the UWA and the NFA has meant the transfer of significant amounts of resource revenues away from communities to finance the semi-autonomous, self-financing institutions. The current levels of transfer of revenues for derivation are none in forestry and 20% of entrance fees for wildlife. In the latter case the amounts of revenue sharing funds are not only small but end up subsidizing incompetent operations of other central government programmes instead of incremental and conservation-relevant investments.

5. Sources of derivation funds have been defined for minerals where local governments receive 17% of royalty payments and land owners get 3%. For mineral deposits discovered on customary land, the 3% would go to the communities. Otherwise, there is no specific allocation for the communities.
6. An oil and gas policy is being developed for Uganda. Hence this study is in a position to contribute to the inclusion of derivation funds in the policy which is ultimately expected to be translated into law. Uganda has the advantage of the experiences of the other oil and gas producing countries.

8.2 Recommendations

From the foregoing conclusions, a few recommendations were identified for priority actions.

1. Initiate dialogue on the broader theme of natural resources based derivation funds and solicit views from all key stakeholders—resource managers, communities, central and local governments, civil society, etc. – regarding fairness and equity in sharing, modalities of funds transfer, inter-jurisdictional sharing, and natural resources fiscal policies, among others.
2. Determine the feasibility of revising renewable natural resources fees, charges or royalties to include fixed charges as derivation funds.
3. Determine a mechanism or formula for allocating renewable natural resources fees amongst jurisdictions in which the resource (forest, wildlife area, etc) is found.
4. Assist communities to establish and manage their share of derivation funds arising from renewable natural resources exploitation.
5. Assist communities to establish and manage derivation funds obtained from mining activities on customary land.
6. Contribute to the debate on sharing of anticipated oil and gas revenues, including the appropriate share which should be allocated to communities and local governments, bearing in mind international experience.

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Annexes

Annex 1: Mathematical Expression of a Derivation Fund

The resource harvesting generates two streams of revenue, one related to output of the resource and the other to taxes associated with processing, exports, and others. That is:

$$RT = R1 + R2$$

Where

RT is total output and associated tax revenue

R1 is output revenue

R2 is revenue from associated taxes

R2 generally goes to the Central Government's Consolidated Fund to be spent on public priorities which may include the area from which the resource is derived.

On the other hand, for most arrangements of natural resources harvesting, a large part of R1 goes to the firm (private, public or quasi-public) that is harvesting the resource. In other words:

$$R1 = (Q \cdot p)$$

where Q – quantity of resource harvested

p – price per unit output quantity

Through royalty arrangements or other forms of payment, the central government receives a small proportion of R1 such that the share would be:

$$r1 = aR1 = a(Q \cdot p)$$

where $r1$ – central government revenue from royalties, etc.

a – the royalty rate (if it is 3%, then $a = 0.03$)

$$\text{and } r2 = (1-a) R1 = [(1-a)(Q \cdot P)]$$

where $r2$ – is the share the producer receives

$$\text{and } r2 > r1$$

$$a < (1-a)$$

The issue of interest to derivation funds is how the central government allocates r_1 among the different stakeholders. Conceptionally,

$$r_1 = r_g + r_i + r_c$$

where r_g – revenue retained by Central Government
 r_i – revenue allocated to local government(s) of the resource area
 r_c – revenue allocated to the communities of the resource area.

Alternatively one can express the allocations as follows

$$r_g = a (Q.P) * b$$

$$r_i = a (Q.P) * c$$

$$r_c = a (Q.P) * d$$

where b - central government's share
 c - proportion allocated to local governments
 d - proportion allocated to communities of the resource area
 and $b+c+d = 1$.

From the above equations, one can say that monies available for a derivation fund may be

$$\text{Either } DF1 = \{[a (Q.P) * c] + [a (Q.p) * d]\}$$

Or if local government allocation is excluded

$$DF2 = [a (Q.P) * d]$$

Whether the local government and local community allocations are combined or not, the size of the derivation fund (DF) is governed by:

- the percentage of royalty;
- the quantity of the resource produced;
- the market price of the resource; and
- the proportion of funds allocated to the communities.

It is worth noting that the quantity harvested does not depend on the central government but the producer. The prices are also market-determined in the absence of central government intervention. The royalty rate is often a legal specification negotiated between the

central government and the developer prior to resource harvesting activities. Hence, the variables under central government control are the proportions of revenue which should be paid to the local governments and the local communities in the resources area.

The foregoing relationships are over-simplifications and do not take account of some practical situations. These include:

- the fact that the central government may be the producer;
- often the resources straddle administrative boundaries and hence r_i may have to be shared between two or more local governments; and
- the producer may be a public or quasi-public corporate entity who may have been given total control over the resource and in the law establishing it, no provision is made on sharing royalty revenues.

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