



*Application of Environmental Fiscal  
Reforms and Other Market-Based  
Instruments  
for Environmental Management in  
Uganda*

*Progress, Challenges and Future  
Prospects*

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# Introduction

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The Millennium Ecosystem Assessment (March 2005) – found 60 per cent of the 24 ecosystems examined were over-used, mismanaged or degraded. It identified a variety of policy choices to reduce the degradation of ecosystem services and retain the benefits for people. These include

- Regulatory approaches -standards, audits, legislation
- Suasive measures – change perceptions thru education, information & training
- Economic Instruments – which encompass a wide range of taxation and pricing instruments, including taxes on the exploitation of natural resources, taxes and charges on water or air pollution, and the reform of water or energy subsidies; property rights, etc

# Ugandan context

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- Uganda has been using command and control policies for the last ten years.. Though quite successful, the costs of obtaining further or additional improvements are high;the courts of law are slow to deal with offenders, fines are too low to deter violations and costs of enforcement are high. There is little or no incentive for firms to improve their performance over and above the standard required by law.
- And -Ecosystem degradation has continued. Water quality, soil productivity and habitat are impaired
- Therefore now looking at economic approaches

# So..why economic approaches?

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- We can place a value on ecosystem functions in a way that creates incentives for maintaining them
- Need to penalise adverse impacts on environment (user pays)
- Need to ensure beneficiaries pay for the environmental services they receive(beneficiary pays)
- Poverty reduction strategy- funds could be a source of revenue if well structured

# And what are the merits of EFR

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- They can raise revenue for the public sector that can be used on public goods that improve environmental quality.
- They provide signals about resource prices and environmental damage that stimulate efficient resource use and minimization of waste.
- They lower the costs of enforcement because people easily respond to price or cost charges associated with them.
- They ensure efficiency through either the distribution rule of “Polluter Pays Principle” or “Beneficiary Pays Principle”.
- They encourage optimality and economic efficiency in the use of resources. They minimize the depletion of non-renewable resources and can help to extend their “life” through innovations such as recycling, minimizing resource use in manufacturing and switching to renewable substitutes where possible

# Uganda - Enabling Conditions for successful EFR

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- The existence of a legal and/or policy framework that articulates the principles for using incentives and disincentives and also establishes their levels. Uganda's policy and legal framework is well established by the NEMP (1994) and NEA (1995).
- Mechanisms for penalizing defaulters have been established under the NES (1995) the various regulation and sectoral laws and regulations.
- An institutional framework for resolving conflicts between the polluting and the polluted parties exists under the established courts of law, NEMA and the collaborative lead agencies' Technical committee on Licensing pollution
- A clear and publicly available statement of the standards set which provide a benchmark against which any charge above them is justified. Standards have already been set in different aspects of the environment – effluent standards, air quality standards....
- A private sector driven market oriented economy. Uganda has declared its policy towards a private sector led, market driven export oriented economy.- more work to be done here

# Uganda - Enabling Policy/Legal Framework

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- The National Environment Act (1995); the Mining Act, the Fisheries Policy etc provide for the Polluter Pays Principle & beneficiary pays principle
- NEA allows NEMA in consultation with the Minister of Finance, Planning and Economic Development (MFPED) to recommend:- Tax incentives to encourage good environmental behaviour including the conservation of natural resources and abatement of pollution; User fees to ensure that those who use environmental resources pay the proper value for the utilization of the resource; and Tax disincentives to deter bad environmental behaviour that leads to the depletion of environmental resources or that cause pollution.

# Progress- Types of Economic Instruments in use in Uganda

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- Fiscal Instruments:** fisheries user levy, tax on polythelene, tax on old vehicles
- **The Fisheries User levy** - used for two main reasons: As a management approach & Revenue generating instruments - To raise revenue for management costs; Costs of fisheries research; Costs of fisheries Monitoring Control and Surveillance (MCS); Costs of market development...etc

# Fisheries User levy-fiscal elements

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- Export cess or royalty; at 2% of value of fish exports; With US\$143m in 2005; 2% = Ugshs 5.2 billion; Against approx. Ugshs 4.1 billion required for management services (Mgt and research)- Makes a saving of Ugshs 1.1billion; 2006 projected US\$185m in 2006- Will bring approx Ugshs 6.7billion
- Local Government;-;- Fishing vessel permits (FVPs) and fisherman's licence ;Boat licenses
- Fisherman's permits- (US\$4.4) each year.
- Local Government (BMU)-fish movement permit & Landing site user fees

# Tax on polythelene materials

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- Tax aimed to raise the price of polythelene bags and therefore discourage consumption of the bags
- Tax failed because price was too low –not prohibitive enough to discourage behaviour
- **Govt recently imposed a BAN on polythelene bags less than 30 microns and a 120% excise duty on the rest to minimise the use of the bags and containers and develop environmentally friendly alternatives –**
- **In implementation since september 30th.....progress not clear**

# Environmental Levy on imported vehicles

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- Targets used motor cars over 8 years old (10% levy)
- Aims to reduce ozone depleting substances from the atmosphere
- Introduced in the 2005/2006 budget. Spare parts also included in 2007/2008 budget.
- Progress not clear- will be quite challenging to enforce because most Ugandans can only afford such vehicles.....

# Progress – other instruments

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- **Financial Instruments** -Green or eco-funds- e.g. *Bwindi Mgahinga trust fund for conservation of the mountain gorilla, GEF small grant loans, etc*
- **Market Creation**-;Carbon offset credits – some progress in this area especially in afforestation on private land, reforestation of degraded land, methane capture;carbon cogeneration...); Compensation for environmental services – biodiversity offsets etc –

# Progress -continued

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- **Charges**- water permits in place and penalties for not meeting effluent standards;---more work needed

**Performance bonds and deposit refund system** –law provides for this – Mostly used in the mining sector. Not used enough

- **Biodiversity conserving business-** Biodiversity friendly products-Eco-labelling; Certification ("*certified organic*"; "*certified biodiversity friendly*"; "*carbon neutral*" "*fair trade* – **potential exists market still being developed**

# Progress continued

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- Property rights:** Rights and duties exercised and enforced as an incentive to invest in natural resource management or maintain environmental quality. e.g. Chimpanzee sanctuary, land titles/certificates in forest reserves/wetlands, water rights, fishing licenses, pollution permits, wildlife user rights & intellectual property rights (patents) –
- **Charges for Access to species of habitat-** Bioprospecting contracts/Research permits/Rights to collect specimens/Hunting, fishing permits/Ecotourism use/Gathering wild species/Rights to enter area (tourism gate fees?)

# Implications for Poverty Reduction

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- Foreign exchange earnings & local government revenue; Reduces dependency on government revenue. (Those resources can be diverted to deal with poverty)
- Less costs on enforcement of environmental laws
- Personal income for those providing ecosystem services that can be compensated

# Key challenges

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- Buy-in – *Initially*
- Equity issues- Does affect competitiveness? *short, medium and long-run*
- Budget the cess funds under non-tax revenue and lift-up MAAIF MTEF ceiling
- Guarantee by Ministry of Finance to reimburse back the collected revenue – mistrust
- Do the forex from fish exports come back to Uganda? not certain
- Corruption in the Local Government tendering system

# More challenges

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- How much should we pay/tax/charge/compensate?  
Assessing and capturing value – Price does not always capture value of other services
- Defining rights – who will receive payments?
- Effectiveness –in enhancing environ. benefits
- Efficiency –compared to other approaches
- Equity –in the distribution of benefits
- Relevance –to protected areas
- Lack of Information/Regional differences in ES which may require application of different tax/subsidy at every site - exchange rates?
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# Future Prospects - Opportunities

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- **Carbon storage** – Estimates by various studies show the value of UG's forested areas (forests, woodlands, grasslands) to carbon sequestration to be 56.4 billion UGX(app. 34M USD;ex 1670UGX/1USD) – more opportunities to sell CO2
- **Tourism/eco-tourism** – 6 national parks created from forest reserves; Bwindi and Mgahinga – mountain gorilla –half of the world's population. 33% of revenues of Uganda Wildlife Authority from gate receipts– not including downstream benefits from tourisms such as travel, hotel, handicrafts

# Future prospects

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- **Biodiversity Option Values**- Promising returns expected from development of plant based pharmaceuticals. Several studies using number of endemic plant species per hectare and patent rights to estimate the potential value of undiscovered plant based drugs show a value of \$0.1 to \$3 per hectare.
- **Non Timber Forest Products** – sale of forest products; concession fees;; rent for land in forest reserves; permits for transport and trade; payments for ecosystem services provided by forests – e.g watershed services; climate change mitigation

# Future prospects

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- **Payment for water quality?**- Possibly add a small cost to the water tariff to cover quality?- Value could be estimated by considering the cost of providing a water treatment plant; an alternative source of water e.g. mkt costs for boreholes
- **Soil Fertility** – this is in line with biodiversity conserving business—e.g organic agriculture. Value of soil fertility can be estimated by looking at the cost of replacing nutrients in the farm with chemical fertilisers

# Next steps/recommendations

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- Further develop fiscal instruments – cap and trade; pollution taxes
- Package the ecosystem services into saleable products - find buyers (The Katoomba Group)
- Research on the wider impacts of the application of economic instruments on FDI, equity, competitiveness other variables.;
- Development of a databank on polluters to guide the development of appropriate fiscal measures and consensus building and coordination across sectors especially Finance, Planning and Local Governments in order to ensure that the revenue from such taxes is earmarked and allocated in a way that leads to achieving other development goals (such as MDGs) while also furthering environmental goals

# Next steps/Recommendations

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- Involve private sector- Invest in Environmental shares/bonds; Green Business/Certification
- Regulatory measures should be complemented by social and economic incentives and /or disincentives including pricing to influence behavior for individual organizations to invest in sustainable environment management.
- The tax structure should provide incentives for socially desirable activities and disincentives for actions which compromise social welfare
- The enforcement responsibilities of many government agencies should be reduced to a critical set of regulations which can be effectively enforced

# Conclusion

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- EFR has a big potential to reverse environmental degradation in Uganda. They can raise public revenue and help to achieve sustainable development objectives. To realize this potential, NEMA, MFPED and other line ministries, local governments and other stakeholders need to work as a team.

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