

Sustainable Finance for Conservation in Africa

Why Not Try Market Based Instruments?

By

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1. Introduction

Although some efforts to the contrary exist, the pace of environmental destruction is still very high. Today, natural resources are not only depleted by deforestation, fire, cattle ranching and over-exploitation but the natural environment is increasingly being destroyed by a much more insidious urban and industrial pollution.

It is therefore common sense to say that more than ever; the environment has to be well managed if we want to stay living on this planet. It is unfortunately less common sense to say that there is an inseparable link between environmental management and sustainable development, especially in a developing country context.

It might therefore be useful to remind environmental managers that there are two major categories of environmental management tools. Neither of which should be exclusive of the other; each of which could be an excellent complement to the other.

2. Command and Control Instruments (CCI)

CCIs are the classical environmental tools often being used. It includes the setting up of an adequate and efficient legal framework, the well known and classical control instruments to make sure that the legal framework is enforced, environmental licencing and monitoring to closely follow some important parameters and eventually, a zoning exercise.

One has to recognise that, so far, these tools have had limited impact on the ground. In many places, the lack of political commitment to environmental conservation is the major problem. But there are many other reasons. One of them is the serious shortage of technical skills needed to use such complex tools. Another reason is the inadequacy, not of the tool itself, but of the way it is being used. Centralised monitoring will never be efficient in huge and remote regions. Vague environmental legislation is useless for public prosecutors. They are also constrained by the dramatic shortage of scientific instruments and knowledge to bring irrefutable evidence of law violation to the courts. A bunch of, however motivated and courageous, under-equipped environmental policemen will never be able to cope with the situation. A top-down ecological/economic zoning exercise will never convince the local communities to abide by it.

Command and Control Instruments have proved to be a very big consumer of qualified human resources, which is actually what is missing most in many regions. They also require very strong and well-organised institutions. Finally, there is no doubt that they will require huge financial resources, which is another problem in all developing countries or regions. The informational requirements of these tools are completely out of scale with the local capacities. Local resources are scarce.

Who is going to pay for that when or if the international donors leave?

One way to reduce the cost of CCIs would be to decentralise control and monitoring activities and to work in a much more participatory and integrated way. But experience has shown that this is really difficult and would take a long time to set in place.

This is not to say that these instruments are not needed. They are. But they are not a panacea and maybe they have been dominating the scene too much, hiding other potentially interesting and efficient tools. I am not saying here that this situation is typical of developing countries. CCIs are also predominant in Europe, the United States and Japan. But the situation is changing, hopefully towards a more balanced approach.

3. Market Based Instruments (MBI)

MBIs are a (relatively) new generation of environmental management instruments, which appeared in the United States and Europe during the seventies. Initially, they generated harsh concerns and much controversy amongst many. Traditional environmentalists were concerned that the economic arena was invading the environmental field. Traditional economists were concerned about the idea of valuing common goods like air, water and even immaterial goods like landscape etc.

Since then, a slow but continuous evolution has taken place. The number of applications for MBI has increased as well as the type of instruments. The first one to appear was the simple user charges (on water) and subsidies. Today, there is a full range of instruments well-conceived and adapted to modern realities.

In most countries, this primary function is still to raise funds for public budgets. This is good and bad. Bad if the funds raised are applied to finance activities, which are not related to environmental conservation or pollution control. In this way, it would act as a perfect perverse incentive for fund raising institutions: the more there is pollution, the more they can raise funds for whatever department

It is potentially very good if the funds are used to sustain the huge financial requirements to implement CCI. One of the weaknesses of the CCI is that it costs a lot of money but does not raise any. MBI are ideal to supplement CCIs in that sense.

If funds are used for institutional strengthening activities, training activities, monitoring improvements etc., the logic becomes: the more there is pollution, the more we have funds to control it efficiently. Funds raised by MBI could also be used to subsidise good environmental initiatives. But they should not be seen as mere fund raising instruments. MBI have the potential to induce behavioural changes and motivate industrialists to go further than legal minimum environmental pollution requirements.

Economic instruments also have a role to play in promoting sustainable development (UNEP, 1997). They help internalise environmental costs and promote full-cost pricing policies, which is the starting point of any sustainable development. Another role is using the funds raised to invest in socio-economic projects, recuperation of depleted areas, training, reforestation of watersheds, soil conservation etc.

Of course, MBIs have to be well regulated if they want to be efficient. Doing this is not easy and requires a lot of well-qualified human resources like lawyers, economists and environmental economic valuation specialists to be put in place. They would be useless without a good set of regulations and an efficient legal system. But once they are in place, MBIs are supposed to be more-or-less self-enforced. Because they

operate through incentives rather than through coercion, MBI tend to be less demanding on human resources and institutional capacities.

This does not mean that there is no need for monitoring and control but certainly much less than for the CCIs. Furthermore, there should be no need to create new institutions for that purpose but one could easily use and further strengthen the existing ones. The State's Rural Extension Institutions and the Environmental Police could play a leading role in this. Providing it does not add much to their work and responsibilities without bringing any financial benefit, municipalities could become key actors in this process.

3.1. Typology and definition of most common Market Based Instruments (OECD, 1998)

Emission charges: direct payment based on the measurement or estimation of the quality and quantity of a pollutant.

User charges: payment for the cost of collective services. For example, charges for the collection and treatment of solid waste, charges on sewage water, charges on hazardous waste, charges on aircraft noise, charges on air pollution etc. (pollution control). When they are used for natural resources management, they are usually called user fees. For example for access to national parks, to hunting or fishing facilities.

Product charges: applied to products that create pollution either through their manufacture, consumption or disposal (fertilisers, batteries, pesticides). The aim of this charge is to put a real price on the product to include its collection, disposal and treatment.

Taxes for natural resources management are payment for their use. They are also sometimes called Royalties.

Marketable (tradable, transferable) permits, rights, and quotas: also called emission trading. Are based on the principle that any increase in emission or in the use of natural resources must be offset by a decrease of an equivalent, or sometimes greater, quantity. Two broad types of tradable permits system are actually in operation: those based on emission reduction credits (ERCs), and those based on *ex ante* allocations ("cap-and-trade"). **ERCs** take a "business as usual" approach scenario as the starting point and compares this baseline with the actual performance. If the pollution emitter performs better than the anticipated baseline, a "credit" is earned. This credit can be either used by him or sold to another emitter whose emissions are higher than the accepted baseline. The "**cap-and-trade**" approach sets an overall emission and use limit (the cap) and requires all pollution emitters to acquire a share of this total before they can emit. Shares may be given free of charge by an environmental agency or auctioned. Their owners can either utilise them, save them for later use or trade them.

Deposit-refund system: payment made when purchasing a product. The payment (deposit) is fully or partially reimbursed when the product is returned to the dealer or a specialised treatment facility.

Non-compliance fee: imposed under civil law for polluters who do not comply with environmental or natural resources management requirements and regulations. They can be proportional to selected variables such as damage caused by non-compliance, profits linked to reduced non-compliance cost, etc.

Performance bonds: used to guarantee compliance with environmental or natural resources requirements, polluters or users may be required to pay a deposit in the form of a bond. The bond is refunded when the compliance is achieved.

Liability payments: payment made under civil law to compensate for the damage caused by a polluting activity. Such payments can be made to victims or to the government. They can operate in the context of specific liability rules and compensation schemes, or compensation funds financed by contributions from potential polluters (funds for oil spills, funds for chemical pollution).

Subsidies: all form of explicit financial assistance to polluters or users of natural resources, e.g. grants, soft loans, tax breaks, accelerated depreciation, etc. for environmental protection.

This list is of course not exhaustive and specific instruments that better respond to the needs of a specific reality (deforestation, fires , over-fishing, hunting...) could be created.

Table 1 and 2 below give you an example of economic instruments used in selected OECD countries.

Table 1. General overview of the use of economic instruments for natural resources management in selected OECD countries

COUNTRY	Water Quality	Fisheries	Forestry	Wetlands	Land/soil
Australia	•	•			
Austria	•		•		•
Canada		•			
Canada (Quebec)		•	•	•	•
Czech Republic	•		•		•
Denmark	•		•	•	•
Finland		•	•		•
France	•		•		•
Germany	•				
Greece	•				•
Hungary	•	•	•		•
Iceland		•	•		•
Italy	•				
Japan	•				
Korea			•		
Mexico	•				
The Netherlands	•	•	•		•
Poland	•		•		
Sweden	•	•	•	•	•
Switzerland			•	•	•
UK	•		•	•	•
US		•		•	•

ADAPTED FROM OECD DOC. ENV/EPOC/GEE (98) 35/REV1/FINAL

Table 2: General overview of the use of economic instruments for pollution control, in selected OECD countries.

COUNTRY	Charges	Tradable permits	Deposit-refund system	Non-compliance fees	Performance Bonds	Liability payments	Subsidies
Australia	•	•	•		•	•	
Austria	•		•			•	
Belgium	•						
Canada (Quebec)	•		•		•	•	•
Czech Republic	•		•	•			•
Denmark	•	•	•			•	•
Finland	•		•			•	•
France	•	•					•
Germany	•					•	
Greece	•			•			•
Hungary	•		•	•			
Iceland	•		•				
Italy	•		•				
Japan	•					•	•
Korea	•		•	•			
Mexico	•		•				
The Netherlands	•		•				•
Norway	•		•	•			•
Poland	•	•	•	•			•
Sweden	•		•	•		•	•
Switzerland	•	•					•
Turkey	•		•	•		•	•
US	•	•	•		•	•	•

Adapted from OECD doc.: ENV/EPOC/GEEI(98)35/REV1/FINAL

Data on economic instruments used in developing countries are much more difficult to gather. In many developing countries, these instruments are still at a very embryonic stage. In many cases, they are perceived as anti-social and primarily affecting the poor. For example taxes on water and electricity. This is a wrong perception. The water taxes often hit much more the wealthy big water consumers than the poor

users. The same applies on energy taxes. The problem is that the funds raised on charging the big consumers are not used to support sustainable and poverty alleviation activities or projects.

Another complaint about economic environmental management instruments is that they affect the competitiveness of industries. This is more of a political problem. Shall any kind of development be allowed on the ground that economic development is above everything? If we keep "developing" the way we do today, there might well be no development at all in the future!

On the other side, there should be mechanisms to compensate for the economic cost of environmental protection. In other words, there should be incentives for good behaviour.

Bibliography

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