

Wetland conservation: institutional constraints and community awareness

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ABSTRACT

The state of the environment in Uganda's Pre-independence period was probably the most ideal in the whole of the African region. Once described as the 'Pearl of Africa' by Winston Churchill, the tiny country that lies between 4° 12' and 10° 29' N latitude and between 29° 34' and 35° 00' E longitude with an altitude above sea level of between 620 to 5110 metres enjoyed an ideal weather pattern suitable for agricultural production. This essentially forms the country's economic backbone, without destabilizing the ecosystem. Increases in population, which now stands at 22 000 000 people, have had very negative implications on land usage, mainly for agricultural and shelter purposes.

INTRODUCTION

Uganda covers a total surface area of 241,038 km² of which 43,941 km² is open water and swamps. Kampala city, Uganda's Capital and industrial centre covers a total surface area of 195 km² of which 31 km² (15 per cent) is wetlands.

The gradual and steady increase in population means that sanitation facilities have to expand and with more development projects land, which is ideal only in limited locations, is used up. This has ended up infringing on wetlands as well.

Since the NRM Government came to power, revamping the economic sector and diversifying economic production which solely hinged on agriculture between 1960-1985 has been a major concern. The establishment of the Uganda Investment Authority (UIA) in 1991 saw an increased number of industrial establishments. Kampala City has the majority share of large industrial investments a number of which have encroached on the wetlands. Kinawataka and Nakivubo swamps in particular have become major targets for development because of their location and in order to achieve economies of scale.

In Uganda, Environment Impact Assessment is a new phenomenon. Although now being appreciated, it will require concerted efforts of all sectors in our society if we are to reap its benefits. Statute No.4 of 1995 of the

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Public involvement

Republic of Uganda brought into existence the National Environment Management Authority (NEMA) with power to ensure that, amongst other things, wetlands as integral parts of the ecosystems are protected from negative impacts resulting from human activities. In conjunction with other lead agencies such as Kampala (KCC), NGOs (e.g. IUCN) etc. NEMA strives to protect the environment and threatened species. As pointed out, EIA is a new requirement and its adaptation is still regarded as an ordeal by most industrialists, since they consider it expensive and unnecessary.

BACKGROUND

Kinawataka and Nakivubo swamps lie on the eastern part of the city. They both open into Lake Victoria, a natural reservoir of water supply to the city's residents. Besides serving as flood controls, these wetlands are used mainly for effluent filtration and water purification before discharge into Lake Victoria.

Lack of information flow to various institutions involved in the processing, establishment and construction of processing industries accounts largely for the destruction of wetlands, in the Uganda case in urban centres.

NATURE OF PROBLEM AND SOCIAL RESPONSE

Following an appeal by the State in both local and international media, a number of investors have been trying to construct heavy processing plants in Kampala in particular, because it is well linked to a hydro power dam whose output is sufficient to run heavy industries. The Kinawataka and Nakivubo swamps lie along the power supply route and hence are vulnerable.

Large plants like Coca-Cola and Pepsi cola employ a reasonable workforce and generate a substantial amount of revenue to the State. Their existence is of national importance.

The area particularly around Kinawataka was zoned in 1972 for industrial establishments and impact assessment (EIA) was put in place as a prerequisite for establishment of any project as recently as 1995. The National Environment Policy came into existence only four years ago. The creation of NENM is just as recent.

Establishments like Pepsi cola and Coca-Cola were built before NEMA came into existence; at the time EIA was not that crucial. Perhaps in an attempt to minimize costs, no proper drainage facilities were initially put in place. It has been noted in the past that one of the beverages plants was discharging its effluents onto open ground and the grass was beginning to wither. In an attempt to mitigate this sad scenario, it is believed that underground tunnels have been constructed to remove the effluent which is now likely to end up in Lake Victoria causing pollution and destroying the zooplankton. What is not known however is whether both Pepsi cola and Coca-Cola have in the

past been meeting minimum standards before disposing of any effluent into the swamps; this is very important since the swamp leads into Lake Victoria which supplies the city's water for industrial and home use, as well as being the habitat for rare species like the Crowned Crane (*Balearica pavonina*), the Shoebill (*Baleariceps rex*) and fish.

SOCIAL INPUT AND PUBLIC AWARENESS

Repeated flooding in the city is largely blamed on the destruction of swamps, which act as natural drainage channels. Besides, in Kampala, they are useful for stripping sediments' nutrient and retention of toxins. As well, they have been natural habitats for rare fauna species e.g. the Shoebill and the Crested Crane. The continued construction of warehouses and industries in the swamps sparked off public outrage. In February 1999 angry residents near the affected swamp wrote to Kampala Town Clerk complaining about the infringement on the swamps. The developers were ordered to halt construction until drainage channels were constructed to prevent floods and an EIA report submitted to NEMA. Surprisingly, although when the site was visited one developer had not stopped construction, most other developers had complied.

In a related incident, an international school has been a point of contention following its construction in Nakivubo swamp. This swamp is of vital importance to city residents because it filters all the semi-treated sewerage and untreated industrial wastes. Tampering with it means that the effluent will go into Lake Victoria which is close to Kampala's water works. Officials from the Inspector General of Government (IGG) and the Kampala City Council (KCC), the National Environment Management Authority (NEMA) and National Wetlands Programme were irked by this infringement prompting an inquiry into this scenario. This did not yield any positive results since in most cases permission is granted by State technocrats without demanding strict adherence to the EIA standards.

EIA PROCESS AND TIME FRAME

It is now a requirement for project developers to submit an EIS/EIA to NEMA before a project is undertaken. NEMA studies the report and, after ensuring that all measures have been put in place to comply with NEMA standards, a certificate is issued for work to commence. Where the project is likely to arouse public concern, as was the case in the recent proposed construction of a hydroelectric power dam, the public and all stake holders are invited to a public hearing. Views from all parties concerned are heard and, depending on the social response, the issue may be deferred until compromise is reached. When the Environment Policy came into being in 1995 with the establishment of NEMA, most of the developments in wetlands were either already started or completed. Developers cannot easily appreciate the value of an environmental audit report.

NENM, NGOs and all other leading government agencies will have to play a leading role in sensitizing the entire cross-section of the population to the mandatory EIA requirement. This has to be done over time. One KCC senior official observed that 'Although EIA is mandatory for industrialists, few submit the EIA/EIS to the relevant authorities'. This is because, as pointed out earlier, this is a new requirement, and developers regard it as an expensive exercise. It should be emphasized that at times compromise is difficult to reach, especially on big investments, as the government is trying to attract as many investors as possible.

A case in point is the Nainanve Industrial Park, a big land/forest reserve that has been opened for industrial development. The wetland will be destroyed and the forest reserve lost. In effect, this will cause water pollution of Lake Victoria and flooding of the Jinja Road highway.

MONITORING AND EVALUATION

NEMA undertakes monitoring as a government agency. Other institutions, like Makerere University Institute of Environment, also undertake studies as do various other independent institutions, and the press.

Since NEMA is the government's watchdog on environmental management its decision and ruling is final. But because of the large number of projects in diverse areas of our country, and given the limited resources necessary to traverse the entire nation so as to maintain EIA standards, sometimes it is very hard to ensure that the EIA process is followed at all times and all places. The Kinawataka and Nakivubo case for instance was brought to the attention of the public by residents living near the swamp. NEMA in turn intervened, halting the construction, and KCC, acting as a lead agency on behalf of NENM, enforced the ban on construction. Residents though are still suspicious because they don't have access to these closed-down establishments and cannot ensure that ameliorative measures have been put in place.

CONCLUDING REMARKS

The relevance and importance of EIA at this stage of human development cannot be questioned. As more and more developmental projects are carried out, the state of environment in any part of the world has to be closely monitored. The need for capacity building and the Government's unreserved commitment and political will have to be at the forefront if the ecosystem is to remain stabilized.

Judging from the past experience, it appears that the NEMA, the Government's top watchdog, is in most cases caught off guard and steps in only to carry out environmental audit. It is, however, very evident that the press and the public and NGOs have been acting as effective partners and good watch dogs.

Some heavy industry plants at times are not subjected to a rigorous EIA process for fear that the developer may be concerned about the heavy expenses involved in mitigation measures and in turn shift the plant to another country, consequently denying the State revenue. If there is going to be a way forward the ground has to be leveled so that all developers, big and small, are subjected to the same strict EIA process.

NAME	AREA (km ²)	TYPE	LANDUSE	THREATS
Kasanga	4.72	P>S Papyrus	Subsistence agriculture And hunting	Drainage
Kinawataka-Kawoya	1.5	P Papyrus	Industrial development Subsistence agriculture And papyrus harvesting	Drainage and permanent conversion
Kirombe-Kachanga	2.44	P Papyrus	Mining of sand	Fire
Kiwembo-Kawaga	1.27	P Miscanthus Papyrus	Papyrus harvesting And hunting	None significant
Kyetinda	2.06	P Papyrus	Subsistence agriculture And papyrus harvesting	Drainage
Lubigi	2.85	P Papyrus	Harvesting Papyrus	Over-harvesting
Mayanja River	0.81	S	Subsistence agriculture	Drainage
Nabisasiro	1.98	S	Subsistence agriculture	None significant
Nakivubo	5.29	P Papyrus	Effluent treatment Subsistence agriculture Papyrus harvesting Settlement	Drainage Noxious weeds Over-harvesting
Nalukolongo	*	S	Settlement Industrial development subsistence agriculture	Drainage
Nsooba-Bulyera-Kiyanja	4.61	S	Settlement Subsistence agriculture Waste disposal Brickmaking	Drainage and Permanent conversion
Walufumbe-Nalubaga	2.52	S	None	None

P – permanent
S – seasonal

LIST OF RELEVANT PUBLISHED PAPERS AND OTHER SOURCE MATERIAL

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Key words

**community
participation
environmental
impact
environmental
audit**