

Resolution of Conflicts Between Agriculture and Environment Protection in Uganda

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INTRODUCTION

Agriculture as the science and art of raising crops and animals for the benefit of man is as old as civilization itself. For many years, the relationship between agricultural practices and environment remained stable and favourable. However, this relationship got disturbed or upset when, due to certain forces, agricultural exploitation of natural resources led to serious environmental degradation. The timing and magnitude of the problem when it occurred has varied from country to country. However, what is certain now is that there is an environmental crisis in every country of the world. Uganda is no exception.

1. DELAYED RESPONSE TO ENVIRONMENTAL DAMAGE

One may wonder why despite the claims to progress, national dignity and sovereignty, it has taken so long to awaken to the fact that there is an environmental crisis. It is obvious that the magnitude of today's environmental damage is not the result of one year's agricultural use of the land. Rather, it is the accumulated damage of many years.

I am afraid I must say that in Uganda, like elsewhere, we have been bedeviled by three stubborn illusions about the environment which have prevented us from seeing the ecological crisis and its implications.

The first illusion is "There's plenty". There's plenty of land, water, fish, grass, animals and trees, plenty of whatever we need and want. But the fight for land to the point of brother killing brother in some districts is a signal that the land is scarce. People with food not being able to eat means there are no trees and hence no firewood.

A second illusion suggests, in a naive way, "It is ours" The world, the natural resources, creation itself is really our property to do with as we like. The essential message in promoting sustainable use of natural resources is that they (the resources) do not belong to us but to generations to come.

And, finally, there is the illusion "It doesn't matter". It does not matter that we cut the trees or clear the forests so long as we get more money or develop a big banana plantation. It does not matter if the area gets overgrazed as long as our animals multiply in numbers. It does not matter if there are no soil conservation structures on one's holding as long as he or she bought it. It is mine. The rude fact is that it now matters a great deal.

2. CRITICAL ENVIRONMENTAL PROBLEMS RESULTING FROM AGRICULTURE

Time does not allow to make an elaborate exposition of the damage caused to the environment as a result of agricultural activities and practices.

Basically any agricultural activity must upset the natural ecosystem. The extent to which the natural balance is disturbed depends on the nature, intensity and duration of the activity.

Land/Soil degradation

- Deforestation to clear more land for crops reproduction
- Overgrazing.
- Continuous cultivation of the same piece of land.
- Bush fires.
- Sand and murram mining.

Drainage, overharvesting and burning of wetlands

- Clearing swamps for dairy farming e.g. in Kabale district.
- Uncontrolled and unplanned draining of swamps to grow rice (Iganga, Tororo, Pallisa districts) and vegetables.
- Brick making to construct buildings for people, animals, crop storage and processing.

Pollution of water bodies, land and air

- The chemicals used to control plant and animal diseases and pests have adverse effects on other flora and fauna useful to man.
- Some chemicals when applied to crops and animals persist in the crop and livestock products thus posing human health risks.

Overfishing

Encroachment of protected Areas

- Natural parks and other gazetted areas have been invaded by settlers looking for land to cultivate crops or graze their animals.

3. CAUSES OF IDENTIFIED PROBLEMS

Too often there is a tendency to heap blame on the people in agriculture for the environmental damage caused by their activities. In most cases such people have been, until the NRM era, the defenseless majority. The administrators, steeped in bureaucratic thinking have branded the farmers and cattle keepers as callous, ignorant and irresponsible.

It is now realized that environmental damage of every type has genuine causes which must be seriously addressed by all parties concerned. Endless trading of blames between Government and the people cannot be a solution. Thus the following points require nothing as major causes of the observed damage to the environment. Again, time does not permit elaborating on each point.

- Ignorance and lack of awareness among the population of the adverse consequences of their actions on the environment.
- Most people are entirely dependant on agriculture. They neither have the means nor the capacity for a viable alternative.
- Lack of a comprehensive national policy on environment management.
- Lack of a comprehensive enabling umbrella legislation on environment management.
- Inadequate and weak institutional framework on environment management. Environment use and management is dispersed in several Government and Non-Governmental Organizations. Unfortunately there are no operational coordinating mechanisms at most levels.
- Lack of appropriate information on natural resources to enable sound planning and management.
- Persistent individual and institutional criteria to implement measures for environment protection.
- Lack of trained and committed personnel in environmental management.

4. IMPORTANCE OF AGRICULTURE VIS-A-VIS ENVIRONMENT PROTECTION

The major natural resources available to man are *land* and *water* and associated *soils*, *plants* and *animals*. The use of these resources should not cause their degradation or destruction because man's existence depends on their continued productivity.

To live man must eat. Most of his food comes from plants grown on the land or from animals which themselves live by eating plants. The supply of adequate water either by *rainfall* or *irrigation* forms a basic condition for optimal plant production. In the final analysis, man's survival thus depend on *agriculture*.

In Uganda, like in many other developing countries, the majority of the population depends on agriculture for their food and for their personal and

national incomes. Low level of nutrition, increasing numbers of people, unreliable crop production due to physical and climatic constraints, greater demands on limited land resources, and problems of national finance and foreign exchange earnings all impose the need for intensification and expansion of agriculture.

Recognizing the paramount importance of land and water resources for the survival and welfare of the people, it is imperative to give the highest priority to promoting optimum land and water use and to conserve land and water resources. This implies land and water utilisation without waste so as to make possible a high level of production which can be continued indefinitely. This sustainable use of land and water must ensure that the productivity is at the same optimal level in *perpetuity*.

5. THE MEASURES TO TAKE TO RESOLVE THE CONFLICTS BETWEEN AGRICULTURE AND ENVIRONMENT PROTECTION

Table I summarizes in a schematic form the cause and effect relationships among the prevailing agricultural practices, the environmental damage done and the possible remedial measures. Time, once again, does not allow a detailed presentation of the issues here.

In this paper, I highlight some of the policy measures which have been taken to ensure a balanced approach to the use of the land and water resources for agricultural production on the one hand, and to promote environment protection on the other.

The Government of Uganda has formulated a National Environment Action Plan (NEAP). The main objective of NEAP is to identify and analyse the major environmental problems and develop a comprehensive national strategy to deal with the problems.

The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is intensifying the efforts in protecting the environment, particularly the basic resources of *water* and *soil*.

MAAIF has a Farm Planning Unit which deals with the physical planning of farms. This unit, however, requires strengthening by provision of facilities and additional trained staff.

In order to save the exploitation of wetland for rice production, the Ministry's policy is to promote upland rice production through research and extension. For milk production, the Ministry is popularizing zero grazing.

Valley dams and tanks are being constructed to provide more water for livestock country-wide.

MAAIF research and extension services are actively promoting the wider adoption of practices of Integrated Pest Management (IPM), and agroforestry to minimize environmental destruction.

MAAIF is implementing in ten pilot districts, a project on the integration of Family Life Education messages into the Extension services. The essence of this

project is to educate farmers to relate their family sizes to the resources at their disposal. This should reduce the excessive pressure of too many people depending on a narrow land resource base.

Women play a significant role in agriculture. Consequently, they must be intimately involved in environment protection measures. MAAIF's extension services are increasingly highlighting women's active participation.

CONCLUSION

The conflict between agriculture and environment protection is also a challenge to mankind for survival. There is no doubt that all societies regardless of the stage of industrialization and political maturity, have to depend on agriculture for food at least. On the other hand, rampant environment damage from agricultural practices, is equivalent to the fatal action of cutting the branch of the tree on which one is sitting.

It is, therefore, clear that we must create a harmonious relationship between agriculture and environment protection. The measures so far taken in Uganda are by no means adequate yet. We need financial and technical cooperation to enhance these measures, review current policies and formulate new ones. We require opportunities for exchanging ideas.

I thus conclude by thanking you for giving me this opportunity to participate in this discussion. Thank you very much indeed.

Table 1. *Resolution of Conflicts Between Agriculture and Environment Protection*

<i>Agricultural Practices in Uganda</i>	<i>Cause of Conflict</i>	<i>Effect on Environment</i>	<i>Remedial Measures</i>
1. Shifting Agriculture	Lack of soil fertility	Land and soil degradation	Nutrient recycling and land consolidation
2. Small holdings	Land tenure system and population pressure	Over-exploitation of land leading to soil degradation	Create jobs outside agriculture, Land consolidation, Soil conservation
3. Bush fire	Lack of mechanisation	Destruction of ecological habitat	Law enforcement, Provision of farm tools
4. Use of Agrochemicals	Low soil fertility, Control of pests and diseases	Pollution of fresh waters and toxic to living organisms, destruction of beneficial fauna and flora	Emphasise use of cultural methods, create awareness, use organic fertilizers, promote biological control, educate people in proper use
5. Irrigation	Drought mitigation	Water logging, salinity water born diseases	Improve water management practices in irrigation
6. Swamp cultivation	Econ. benefits from rice and dairy farming	Destruction of aquatic biodiversity	Promote water sustainable use, promote upland rice
7. Deforestation	Expansion of farmland and source of wood-fuel	Destruction of terrestrial biodiversity, micro-climate change	Afforestation, promote agroforestry
8. Overgrazing	Land and water shortage, search for grass	Land degradation	Promote pasture prod., emphasise productivity rather than no. of animals