

# POST-HARVEST SECTOR POLICY REQUIREMENT IN THE NATIONAL FOOD POLICY

by  
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Abstract:

Localized but chronic food insecurity is increasing in frequency and scope, and in addition, the production and sale of quality products are rare. This situation is thought to be due to several factors, among which is the lack of enforcement of regulatory by-laws in the post-harvest sub-sector. It is also thought to be due to lack of a clear National Policy on Food Security with clearly defined strategies and regulatory mechanisms in the whole post harvest sub-sector.

The post harvest sub-sector is predominantly a domain of women and this puts an added burden to the already overburdened group. Techniques and technologies designed to ease these burdens at the non-farm level are currently poorly developed in Uganda.

Given the present situation, therefore, a National Food Policy encompassing all aspects of the post-harvest sector is urgently required. This should be re-enforced with all necessary regulatory by-laws.

## INTRODUCTION:

The importance of reducing post harvest food losses has been recognized and accepted by the member countries of the United Nations. In the African context, the Lagos Plan of Action (1980), and the African Priority Programme for Economic Recovery recommended a drastic reduction of such losses as an important element in the continent's strategy for increasing both production and availability of food. Food security has also been identified as one of the key areas of focus for medium to long term programmes, to be addressed at both national and regional levels within the IGADD region.

In recognition of the immense post harvest problems in the country, a document (RFL/UGA/001) on the re-establishment of Applied Research and Extension on Prevention of Post-harvest losses in Uganda was signed in February 1984 between F.A.O and Uganda government. This had a long term objective of increasing food availability through the reduction

of post harvest losses..

The project was effected in 1987 and this, it is hoped, will be followed by post harvest programmes supported by Government and International agencies.

The Prevention of Food Losses (PFL) project has collected throughout the country a vast amount of data relating to the deficiencies, points and levels of losses in the post harvest pipeline, fig.1 (Silim et al 1991). These include, resource availability and use patterns, storage facilities, levels and patterns of food production and utilisation, trade in produce, food security and storage methods, storage problems and farmers perceptions on the post harvest problems.

At all levels in the post-harvest pipeline, losses of various magnitude were recorded. In most cases, this loss levels are unacceptably high. Losses of perishable commodities were high, and were due to poor handling and transport, poor packaging, poor storage, lack of primary processing and poor preservation. In durable commodities losses ranged between 5-20% and due to various agents but mainly to pests and pathogens. Pest control and management, storage structures, drying and processing methods were all found inadequate in varying degrees, thus contributing to actual weight loss or loss in quality of varying magnitudes.

It is in recognition of the above immense defects in the post harvest pipeline that the post harvest unit was put in place at Kawanda and assistance solicited from both government and donor agencies to execute the various post harvest programmes. These programmes had the combined objective of increasing food availability and security at the household and national levels. It is however only with clearly defined, rationalized and effectively executed National Food Policy programmes, combined with guide lines and means for enforcements, that such objectives can be met. Its success will require a strong national ability to conduct applied research, training and extension in all aspects of post-harvest technology and techniques. The various sub-sectors in the post-harvest system with all their interrelationships and interactions have therefore to be reflected in the National Food Policy.

## 2. FOOD POLICY ANALYSIS:

### 2.1 Policy on farm storage as a means of enhancing household and National food security:

At independence, Uganda was one of the few countries with government regulation requiring some form of food reserve at the household level. These reserves served as the household's own food security and consequently as a means to national food security. The reserves were in form of:-

2.3 Food Grannaries full of grains (e.g millet, sorghum or maize) which

the household may consume only during periods of food shortage.

plot of cassava or sweet potatoes, crops which can store in situ for long and are therefore reliable as food security crops.

The implementation of this regulation has with time been largely eroded to the extent that it is no longer functional in any part of the country. The overall result has been that a number of districts or regions now suffer localized but chronic food security problems.

Surveys by the PFL Project at Kawanda (Silim et al 1991) revealed that such laxity in policy enforcement has over time resulted in various other storage problems. These include neglect in terms of design, improvement and management of the traditional storage structures in almost all the districts. The number of these structures have also drastically reduced over time throughout Uganda.

An additional problem that was identified is the increase of theft cases of produce from the traditional grannaries. This raises questions of strategies and storage designs that urgently need to be investigated.

## 2.2 Food Policy as regards quality standards in agricultural produce.

The absence of policy guide lines that stipulate criteria for quality standardization in terms of grading and classification has had serious implications at various levels in the food pipeline.

At the producer level, the absence of meaningful and objective forms of grading and classification of produce has over a period of time killed producer incentive to produce, handle and market high quality products. It has also killed the incentive to seek and adopt techniques and technologies designed to enhance quality of produce. Marketing and trade in produce therefore end up employing haphazard and/or purely subjective criteria of setting up pricing based on "quality".

Even produce destined for external trade are not subjected to objective quality standardization that would maximize incomes and profits for producer and the Nation as a whole. Cases in point are the various barter deals involving Uganda and various countries, using beans, maize etc. Because of lack of quality control right from the farm level, poor handling, storage and packaging by the exporters the country lost much in terms of foreign earning. This has serious implications, especially since the country has just embarked on the diversification of exports.

### 2.3 Food Policy on Pesticide use and management

Damage and loss levels on crops by storage pests (insects and rodents) are very high in Uganda (Silim et al 1991). In the surveys conducted by the PLF of Kawanda, it was found that in an effort to avoid or reduce damage and subsequent losses, farmers use a variety of pest control methods which at times amount to abuse and misuse of chemicals. These include use of assorted chemicals not meant for storage such as DDT, lindane, dieldrin, furadan etc.

Pesticide abuse is a great problem throughout the country. The few farmers who use recommended pesticides do so either in dosages far in excess of levels safe for humans or at levels too low to effectively control infestation. Unregulated sale of dangerous chemicals find usage in storage in Uganda. This is especially noted in the case of phosphine tablets, a very toxic insect fumigant meant to be used only by trained personnel, which is being sold openly even in market places as chemical to control rodents.

Wide-spread abuse of pesticides in Uganda have serious health implications to the consumers and has affected the marketability of many of the country's produce locally and externally and has affected that goodwill from the consumers, vital, especially during external trade. Another aspect of the pesticide problem is that all recommended dust formulations for storage use in the country are currently being imported. Such imported chemicals often lack vital information such as date of manufacture, date of expiry and sometimes even recommended dosage rates. Yet even with the best of carrier materials and formulations, the shelf life of the pesticides are limited thus rendering them ineffectual after prolonged storage.

*Dubius justification p. 11/12.*

### 2.4 Food Policy <sup>or</sup> Movement of Produce Within and/or Throughout the Country

In the past, cash crops in Uganda <sup>was</sup> understood to mean coffee, tea, cotton and tobacco. With the current diversification of trade in agricultural produce, virtually any crop can assume a cash crop status. Crops such as simsim, beans, g/nuts, maize or even cassava have now assumed cash crop status, both for internal or export trade.

While this is a positive development as far as diversification of trade and export base is concerned, it may at times have severe consequences on the household and regional food security. For instance the usual rush by produce buyers to purchase during harvest times can deplete a district of its main sources of food, and in the medium term cause food insecurity and at times even deplete seed sources for the next seasons e.g simsim from the north, beans and maize from several districts and cassava from the East. These buying ~~and~~ sprees always goes on in total absence of reliable statistical information on levels & patterns of production and consumption which would form a



basis for determining whether or not to buy, or what amounts to export.

Movement of produce into and through a country is usually guided by plant quarantine regulations. Lack of enforcement or laxity in implementation of such guidelines can lead to inadvertent introduction or importation of serious plant pests and diseases. Such movements of produce are either through the formal grain imports or through informal barter trade or transit facilities offered for grains.

Among the pests inadvertently introduced into Uganda are the cassava green mite and a number of storage pests in cereals and all storage pests of beans. In the East African context serious implications of such uncontrolled movements of grain into and through a country is already having serious effect in Kenya and Tanzania which already affected by the Larger Grain Borer (LGB) (GASGA 1987). The LGB previously absent in the African continent is now found in many countries, and though currently absent in Uganda the country is seriously threatened. LGB mainly attack stored maize and dried cassava. Whereas the usual maize and cassava pest can cause less level of between 6-15%, LGB alone can cause up to 60% loss during the same period of storage and may cause 100% damage in farm stored maize.

On a different note but with serious implication is the current crisis of the cassava mosaic virus. This has mainly resurfaced due to lack of food policy in regard to cassava disease control and management and how to safeguard crops which serve as important food security. All the above emphasizes the need to monitor and conduct surveillance on pests and diseases as well as formulating and enforcing policies that will safeguard the food situation.

## 2.5. Food Policy and implications on harvest, primary processing, and secondary processing and quality control

PLF surveys revealed that most on-farm post harvest techniques and technologies (harvest, primary processing and secondary processing) are traditional. These use implements that are archaic, energy sapping, and very labour intensive and often end up with a product of low quality. Most of these post harvest activities are primarily by the women. These women who are already overburdened with such domestic chores as looking after children, cooking, fetching water and firewood, weeding etc. are so much overburdened during these times to the total detriment of the family life and well being. Use of proper policy guidelines on acquisition and transfer of appropriate on-farm technologies could greatly ease female burdens, improve on the family well being and increase family incomes.

### 3. KAWANDA PLF ACTIVITIES

The post harvest unit at Kawanda is now four years old. It is being strengthened through increased personnel, equipment, logistics and additional financing. It has made the following achievements :-

- (i) For the first time surveys conducted in which loss points, levels and agents responsible have been identified for a number of crops right from harvest to handling, drying, primary processing, storage, secondary processing and on-farm transport.
- (ii) Initiated training of extension staff and farmers on post harvest techniques and technologies aimed at reducing losses. Extension work through demonstrations have also been started.
- (iii) Various post-harvest techniques and technologies are being tested at the station so as to evolve appropriate methods for loss reduction.
- (iv) Initiated LGB surveillance.
- (v) Strengthened plant protection and quarantine programme through storage entomological work.
- (vi) Initiated breeding for pest resistance in storage and various other work.

### 4. FUTURE WORK PLANS

Through the results of the surveys and other observations, a comprehensive post harvest programme has been drawn up aimed at reducing losses, reducing labour intensiveness, easing burdens on women and at the same time increasing quality of Uganda produce.

These will include:-

- (i) Appropriate harvest and post-harvest pest/disease control and management techniques.
- (ii) Improvements on the pre-processing methods (threshing, shelling, winnowing) to maximise on quality, reduce losses and tasks.
- (iii) Strengthen and develop improved storage techniques and technologies.
- (iv) Strengthen and improve on processing techniques to reduce labour intensiveness, reduce losses and increase quality.

(v) PENQTS Improve on-farm transport to maximise use of animal labour.

(vi) SRA 14 Improve and upgrade training at all levels of tertiary education to include those on post harvest techniques, and initiate intensive training of the extension staff.

(vii) Develop grading and classification criteria for various commodities for pricing differentiation.

(viii) Surveys and testing of possible local carrier materials for formulation of storage dust admixtures within the country.

(ix) Encourage formulation of a post-harvest co-ordinating committee to co-ordinate post-harvest activities and formulate appropriate policies in the field of post-harvest.

## 5 RECOMMENDATIONS:

In view of the above problems, the following are recommended:-

- (i) Establishment of a post-harvest co-ordinating committee to co-ordinate and formulate policies on the post-harvest sub-sector.
- (ii) Review and implement existing by-laws that promote food security at the household and national levels.
- (iii) Formulate additional regulations to safe guard food security and quality as regards:-
  - (a) Movements of produce and plant materials both internally and from/to Uganda.
  - (b) Procurement, sales and usage of chemicals.
  - (c) Setting up quality and classification standardization procedures.
  - (d) Setting up guidelines on harvest pre-processing, storage and processing technologies aimed at easing burdens on women, increasing quality of produce and reduce losses and streamline marketing procedures and processes.
- (iv) Strengthen and upgrade the post-harvest unit, as an important unit of applied research and training and strengthen through training the extension personnel to serve as field staff of the post-harvest system.

Through retrenchment of regulations and setting up of additional food policy guidelines, the upsurge of localized food insecurity could be reversed.

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2. Silim M.N., Odogola W., Amenet J. (1991). Technical Report of the Post-harvest Loss Prevention Project (PFL/UGA001) 1987-91. PPI131

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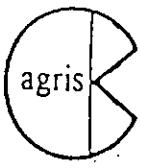
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AGROVOC descriptors Separate descriptors by ; and one space.	800 AGRICULTURAL PRODUCTS; POSTHARVEST TECHNOLOGY (PRIMARY) POST STORED PRODUCTS PESTS CONTROL; POSTHARVEST LOSSES; POSTHARVEST CONTROL; SPRAYING. FOOD SECURITY; FOOD POLICIES; QUALITY CONTROL; FARM INCOME; MARKETING, UGANDA.
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Language of abstract	850
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