



Summary Paper

VC 2: Post Harvest and Transport Technologies – Reducing Loss and Improving Quality in Fresh Fruits and Vegetables

June 22nd 2010

Introduction

Five countries took part in the video conference (VC) on June 22nd 2010 – Ethiopia, Kenya, Madagascar, Uganda and Zambia. The first section of this short summary paper will introduce the context of the VC and the main issues presented in the issue paper produced by the expert on the subject. The second section will consider the current situations and challenges of each country as discussed during the offline national discussions. Section three will consider the future directions to be considered in the reduction of post-harvest losses taken from the VC. Finally, section five will conclude.

Context

A major constraint to high value horticultural exports in Africa is air freight costs and bottlenecks in logistics channels. Many suggestions have been floated in the past, consolidating cargo at central hubs, targeting alternative markets accessible by road and improved post harvest and reefer container technologies to preserve products for longer and make sea transport possible. While this has always been a widely acknowledged issue recent global developments have pushed it to a fore. Events such as the jet fuel price spike in 2008, the volcano eruption in 2010 and the continued issues around air miles and carbon footprints had shown how vulnerable exports particularly the air freight-based Kenyan model are.

Current national situations and challenges

Ethiopia

Given the recognised importance of cool chain management, a stakeholders' task force was established of relevant actors in the industry to be involved in practical implementation of changes in the sector. The role of the taskforce includes following cool chain management at all levels, identifying problems and putting in place corrective measures accordingly. They also raise awareness by training packhouse workers and operators and there are plans to roll training out to all actors involved in the value chain.

The trucks that exist for transportation from farmgate to cargo terminal are monitored by the Transport Authority who carry out random and regular inspections to check defects etc and certify trucks accordingly. The Ethiopia Horticulture Development Agency (EHDA) have been working closely with the Transport Authority to create a national standard and specifications for cold storage trucks. There is also a move to construct a modern cold storage room at the airport cargo terminal and to immediately improve the existing facilities.



Currently, there is no successful horticultural export by sea however a study team has been created to look at possibilities and the feasibility of sea transport. The study team is comprised of members from GITU Farm (a vegetable and fruit producer), AQ Roses (a flower producer), Shipping Lines and the Ethiopian Horticulture Development Agency.

The main challenges have been identified as the absence of specialised cold truck service providers, the shortage of cold storage facilities near or at the cargo terminal and knowledge gaps about the importance of cold chain management to increase quality.

Kenya

Europe is the main international market for Kenyan horticultural produce and Kenya was selected as the country of focus for the issue paper. Due to high costs of air freight, exporters have focused on sea transport as a cheaper alternative. Air freight is up to 41% higher than sea freight and makes Kenyan produce less competitive compared to that of other countries. As well as the shift to a focus on sea freight, there has been increased innovation in regard to packing technologies to ensure products can 'survive' the longer transport times and the existence of piracy which means that a longer route has to be taken to Europe. Another issue in transport in Kenya is 'group interests' that have led to the formation of cartels and control over the length of time for clearing a shipment; refund periods for money deposited by exporters and air freight charges. This has led to the development of the Kenya International Freight and Warehousing Association (KIFWA) and the Bilateral Air Service Agreement (BASA) with several other African countries to attempt to facilitate direct air links although due to a lack of clear guidelines on competition rules and arbitration procedures this has yet to impact the sector. In regard to storage, the majority of facilities are owned by the private sector and so information is lacking.

Madagascar

Given the geographical location and characteristics of Madagascar as an island, the focus of freight issues is on air and sea. Storage facilities and cooling system are limited and there is little formal regulation for the transport of perishable produce. Mechanical damage, losses due to inappropriate water and temperature levels and decay during transport and in storage have all been reported as issues. There is a sea ports development programme underway and the country recognises the need for improved cooling systems and organisation at farmer level as well as an increase in the amount of information available for accurate analysis of the situation to be carried out.

Uganda

There is a lack of data in regard to horticultural exports in Uganda; it tends to be generic, not seasonal and badly disseminated. From data that exists, 10% of exporters have refrigerated trucks and there are five cold storage facilities in the country. The wholesale markets on the whole lack any sort of storage or handling capacity. There is currently no national platform in regard to post harvest and transport



technologies, however they are covered under the draft horticulture policy and there are initiatives to train farmers in production, handling and group marketing. The country has identified and prioritised investment opportunities in the immediate and medium term. These go some way to try and improve the current situation substantially.

Zambia

As a landlocked country, all fresh produce exported to Europe from Zambia goes via air and chartered freights and by road regionally. However there have regularly been reports of inappropriate transport conditions and packing regionally which have led to buyers received heavily damaged produce. Both high flight chartering costs and the high costs of fuel have blighted the sector as well as the bad state of feeder roads.

Challenges have been identified as transport related losses due to careless handling and packing; poor quality markets that provide little produce protection; supply gluts leading to produce 'sitting around' unrefrigerated resulting in reducing quality and ultimate wastage; poor hard market infrastructure; lack of soft market infrastructure such as grades and standards, market and other information and low capacity of brokers; inherent poor quality produce; limited or total lack of cold chains; lack of storage capacity and limited processing capacity.

Despite the numerous challenges, future developments have been identified. The focus is on bringing about a complementarity between export and domestic systems and investing in hard and soft marketing infrastructure.

Future directions

Much of the second offline session at the sites was dedicated to discussion of next steps and actions to begin to make an impact on the issue. What follows in this section is a bringing together of the various suggestions – many of which were similar across the five sites/countries.

Data and research

There is a need for a streamlined structure and system to collect, process and managed data covering the whole value chain for horticulture. Kenya mentioned the need for intensification of research on post-harvest issues such as packaging, storage and the quality of produce.

National level progress

At a national level, many countries voiced the need for a stakeholders platform/organisation to deal with data, putting in place quality control measure, storage, transportation, spare parts and maintenance. There were also calls for national cold chain mechanisms, both in the form of spare parts and technical assistance as well as increase training at a tertiary/professional level. Training in appropriate technologies and processing mechanisms was consistently brought up in the discussions.



Madagascar spent much of the offline time discussing a potential workplan at the national level including issues of enhanced quality and regularity of market supply; support for the emergence of small and medium enterprises in processing; sharing market information from managed and coordinated data; building a strong and efficient national network; strengthening research and training on production and post harvest technology and developing private-public partnerships for sustainable market collaboration. Zambia also does not have a national strategy for horticulture and no organisation mandated to consider the interests of the sector. The lack of an institutional framework has led to a lack of availability of information on fresh produce production, marketing and exports/imports that would normally guide micro- and macro-level planning.

At a national level Zambia touched on the issues of both hard and soft infrastructure that plague the majority of Sub-Saharan African countries. In the case of Zambia, where the horticulture industry is very much in its infancy, the need exists for strategically located fresh produce wholesale markets. The development of market information, quality grades and standards, effective brokerage activities and more private sector involvement in ownership and management is also needed.

Regional level

As well as infrastructure lacking at a national level, there is need to improve the regional networks. An approach to combat the national issues of data could be collaboration on a regional research programme along with trade fairs and joint border collection points. Uganda specifically called for a regional trial on possible sea routes in order to share facilities and services and also joint exploration of technologies to prolong shelf lives of produce. There is also potentially space for regional development of port guidelines and regulations to ensure that all users received the same treatments in regard to exports – Uganda suggested looking at the example of European countries.

Conclusion

The session was considered a success with a general consensus on what the main issues were in regard to post harvest and transport technologies. While there is a need for regional coordination, it was also felt that there are many actions that need to be taken at a national level. The countries involved in this VC ranged from those with horticulture sectors in their infancy, such as Zambia, to those with far more development export systems such as Kenya. It is hoped that this VC presented an important opportunity for lessons to be learned in regard to priorities on a national level and how these national strategies can be linked to experience the full benefit for all of a regional network.

Bibliography

- Notes from pre and post video conference discussions: Ethiopia, Kenya, Madagascar, Uganda and Zambia



- J. Kigamwa – ‘Analysis of post harvest and transportation issues in Kenya’s horticulture: Sea freight as possible alternative to air freight for horticultural produce from Kenya to the international markets and potential of domestic and regional markets.’



Annex 1 – Participants in VC2

ETHIOPIA	Ethiopian Horticulture Producers Exporters Association Addis Ababa	Mr. Siefu Bedada	sbedada@yahoo.com
	Ministry of Agriculture and Rural Development Addis Ababa	Mr. Solomon Dagne	solts1@hotmail.com
	Upper Awash Agro Industry Enterprise Merti	Mr. Abebe Mekasha	mabebeb@yahoo.com Mob:+251-913118321
	Ethiopian Horticulture Producers Exporters Association Addis Ababa	Mr. Tilaye Bekele	tilayebek@yahoo.com Mob:+251-911255672
	Agribusiness Trade Expansion Program (ATEP) Addis Ababa	Mr. Dennis Lesnick	dennis@fintrac.com
	Ethiopian Institute of Agricultural Research (EIAR), Melkassa ARC Nazareth	Mr. Asmare Dagne	asmare75@yahoo.com Mob:+251-911145198
	SNV- Netherland Development Organization Hawassa	Mr. Timotios Hayesso	thayesso@snvworld.org
	Ethiopian Fruit and Vegetable Marketing SC Addis Ababa	Mr Sisay Kibret	deyessag@yahoo.com
	Horticulture Development Agency Addis Ababa	Mr. Tsegay Lubulu	tseggu@yahoo.com Mob:+251-910788964
	ASE Addis Ababa	Tesfahun Fenta	National coordinator
MADAGASCAR	Ministry of Agriculture - TANA	Mrs. Mireille Rahaingovololona updr.rna@blueline.mg	UPDR coordinator
	Ministry of Trade, Statistical Institute - TANA	Dr. Ida Rajaonera idaraja@gmail.com	National Database Acting Director
	Ministry of Economy and Industry - TANA	Mme Voahangy Rajoelinirina saholy205@yahoo.fr	Head Competitvity and Industry Survey Service



Ministry of Agriculture - TANA	Mrs Arlette Olga Raelivololona sq@maep.gov.mg	Head, Quarantine Service
FOFIFA (NARES) - TANA	Dr. Roger Lalao Ranaivoson ran.rogerlalao@yahoo.fr	Director Processing Department
Private Sector Ets ROBENS	Mr. Jacques Rakotonirainy robens@moov.mg zakhari@moov.mg	Export Manager
CTHT - TAMATAVE	Mr. Narson RAFIDIMANANA fruidiles@yahoo.fr	Chair
Ministry of Transport - TANA	Mr. Jean Jacques Randrianarison dppse@mt.gov.mg	Director of Planification
AVRDC – The World Vegetable Center - TANA	Mr. Benjamin Rakotoarisoa benjamin.rakotoarisoa @ worldveg.org	National Coordinator

UGANDA

National Organic Agriculture Movement of Uganda	Charity Namuwoza cnamuwoza@nogamu.org .ug	Marketing / export
	Muwanga Moses Tel:0312264039/ 0752 528364	Market linkages
Uganda cooperative Alliance	Bernard Tayebwa btayebwa@uca.co.ug Tel:772415594	Extension
		Producing Market linkages Financial services (SACCOS)
Kulika Trust Uganda	Harriet Ndagire Semebwa hrrndagire@hotmail.com Tel:772589223	Training coordinating, Production, Value addition Market linkages
Uganda Export Promotion Board	Mr. Msuuti msamsuuti@yahoo.com Tel:0414 230250/233	Policies, standards General export information Export



Namulonge Research Institute

Dr. Peter Sseruwagi
psseruwagi@yahoo.co.uk
Tel:782505281

National Research
Institution

Fresh Logistics

Dr. Ssemwanga
jssemwanga@yahoo.com
Tel:752794612

Training, Production,
Packaging and export

Africa 2000 Network

Fred Kabuye
fmkabuye@a2n.org.ug
Tel:312263218

Exporter/ processor

FAWEX

Monica Kapiriri
Henry Kibukan
Tel:772659697

National Coordinator
Exporter

MAAIF

Federica Nshemereirwe
fnshemereirwe@yahoo.com

Government

ZAMBIA

Food Security Research Project

Mr. Chance Kabaghe
967,133,133 kabaghe@msu.edu

Food Security Research Project
University of Zambia

Mr. M. Hichaambwa
977,867,610 munguzwe@gmail.com

University of Zambia

Dr. Mebelo Mataa
977,808,868 mmataa@unza.zm

Freshpikt

Ms Sherry Ngandu
c/o mmataa@unza.zm

Ministry of Agriculture and
Cooperatives

Mr. Midge Drakes
966,477,191 midge@freshpkt.co.zm

Ministry of Agriculture and
Cooperatives

Mr. Philip Siamuyoba
979,580,995 Philip_siamuyoba@yahoo.co.uk

Zambia National Farmers Union

Mr. Malumo Nawa
966,780,433 malumonawa@yahoo.com

Zambia Agricultural Research
Institute

Mr. Bhaka
Mr. D. Mingocho
977,792,061 c/o chembe@znfu.org.zm
donaldmingochi@yahoo.com

Farmer

Mr. L. Ntalasha
977,110,748



Jomo kenyatta University of
Agriculture & Technology NAIROBI

Dr. Christine A. Onyango cakoth2002@yahoo.co.uk

Jomo kenyatta University of
Agriculture & Technology NAIROBI

Dr. Willis O. Owino willis.owino@gmail.com
willis@agr.jkuat.ac.ke

Kenya Agricultural Research
Institute (KARI) NAIROBI

Dr. L. Wasilwa lwasilwa@gmail.com
lusikewasilwa@hotmail.com

Secretary National Horticulture Task
Force - Kenya Plant Health
Inspectorate Services (KEPHIS)
NAIROBI

Mr. Joseph Kigamwa jkigamwa@kephis.org

Assistant Director of Agriculture -
Horticulture, Ministry of Agriculture,
Kilimo House, Cathedral Road, P. O.
Box 30028-00100, NAIROBI

Mrs. Margaret Masaku

Kabete Campus, University of
Nairobi
Horticultural Crops Development
Authority P. O. Box 42601-00100,
NAIROBI

Dr. Jane Ambuko ambuko@yahoo.com
O. J. ARIM arimogolla@yahoo.com

KENYA