



# COUNTRY PROJECT

## Presentations

# UGANDA

An Integrated Assessment of the Potential Impacts  
of the ACP-EU Economic Partnership Agreement on  
Uganda's Biodiversity

*Geneva, 26-28 November 2007*



# OVERALL OBJECTIVE OF THE ASSESSMENT



- To further build capacity, for assessing environmental, social and economic impacts of trade related policies on biodiversity, in national institutions and government departments- and to enable them to understand the critical inter-linkages/interdependencies between economic growth, environment and social development.
- The assessment aims to help Government **put in place policy packages to accompany the ACP-EU Economic Partnership Agreement (EPA)** – so that outcome contributes to sustainable *use of biodiversity*).



## FOCUS OF THE PROJECT



The focus of the study is the ACP-EU Economic Partnership Agreement (EPA) currently under negotiation.

Uganda is participating in the ACP-EU EPA negotiations as part of a group of 16 Eastern and Southern African (ESA) countries.

- The negotiations are scheduled to conclude on December 31, 2007 with the signing of the agreement



# CONCEPTUAL FRAMEWORK



## Main driving force ACP-EU Economic Partnership Agreement

- Expected to result in increased market access for the horticulture and floriculture sub sectors.
- Potential impacts on biodiversity:
  - increases in conversion of land
  - increase in the use of agro-chemicals
  - water, energy
- Potential impacts on farmers:
  - increased incomes
  - but also increased costs of production.
  - could also have health issues with increased use of agrochemicals if not well managed



# CONCEPTUAL FRAMEWORK (cont.)



<p><b>Trade measure/policy or agreement</b></p> <p><b>ACP-EU Economic Partnership Agreement</b></p> <p><b>Increased market access for horticulture and floriculture sub sectors</b></p>	<p><b>Agricultural activities</b></p> <p><b>Increased Land Conversion (Forest clearance, cultivation of grassland)</b></p> <p><b>Loss of important habitat and associated species</b></p> <p><b>Increased use of agrochemicals</b></p>	<p><b>Agricultural biodiversity</b></p> <p><b>Loss of products provided by habitat, such as timber and non-timber forest products (e.g., food, medicines); forest loss reduces water storage / flood attenuation capacity, soil erosion in grasslands.</b></p>	<p><b>Farmers' income and food security</b></p> <p><b>Increased agricultural production yields, but continual use of fertilisers required to maintain crop yields. Increased food security and human health due to reduced risk of crop failure.</b></p>
<p><b>Other influences on agriculture</b></p> <p><b>Increased road and infrastructure development to supply agricultural areas</b></p>	<p><b>Intensity of land use</b></p> <p><b>Degradation of wetland habitats, river systems and marine and coastal areas.</b></p> <p><b>Further habitat loss from footprint and sourcing of building materials, disturbance, habitat fragmentation.</b></p>	<p><b>Ecosystem services</b></p> <p><b>Reduced drinkable water supplies and fish stocks.</b></p>	<p><b>Other aspects of human well-being (e.g. employment)</b></p> <p><b>Employment may increase- but hmn health costs will also rise and so will malnutrition due to reduced water and fish supply</b></p>



## METHODOLOGY AND TOOLS

---

- Scenario Building Analysis (SBA) to analyse the potential impacts of the EPA.
- Root Cause Analysis (RCA) and Cost and Benefit Analysis (CBA) while analysing at the various ESE effects and making policy recommendations.
- The study will also depend on qualitative methods such as desk research; takeholder meetings; questionnaires; field research; and interviews.



# UPDATE OF ASSESSMENT PROCESS



- Trade and Biodiversity Reference Manual reviewed and used during assessment
- Literature review underway
- **Initial Stakeholder consultations:**  
National Development and Trade Policy Forum; and very preliminary results were discussed with the Ministry of Tourism, Trade and Industry. Stakeholder consultations were also carried out with the floriculture sector.
- **Further stakeholder consultations:**  
Horticulture sector; Directorate of water development; November 2007. Field visits may also be conducted if necessary.
- Initial Assessment and Analysis underway-more data needed



# INTERIM RESULTS-Economic impacts identified



- ***Certification***

MPS GAP -8,000 Euros ;ISO 180001 compliant and the new ISO 26000 requirements which will be effective October 2008

- ***Accessing Markets***

Mother companies provide the seed, control what is planted, how much is sold, who buys it and at what price.; pay royalties; production environment must be disease free and must be under a green house.

- ***Supply side constraints***

Meeting the quantities needed by the market;increasing freight costs

- ***Lack of well developed local market/standards***

Requires new investments

- ***Information Gaps & “misinformation”***

# INTERIM RESULTS

## Environmental & Biodiversity impacts identified



- Conversion of Land

Need 40 ha to 2000 ha.; costs US\$ 0.5m to set up one hectare under greenhouse, therefore, they prefer to have large pieces of land in order to realise economies of scale.

- Use of Agrochemicals

Pesticides, fertilisers and herbicides, which can pollute river, lake and wetland systems as a result of poor management of effluent from the flower farms which is a threat to aquatic life like fish and human health.

Pollution management plans ranging from constructing lagoons and planting papyrus to perform water purification (artificial wetlands) – trying to contain with hydroponics – which allows them to grow plants using mineral nutrient solutions instead of soil. By doing this the companies minimise soil and water pollution.

- Water use

At least 50,000 litres per hectare per day ; - up to 9,000,000 liters

- Energy use

Chrysanthemums-. Every square meter must have a bulb and one hectare requires 1000 bulbs. Solar is considered to be a very expensive alternative

# INTERIM RESULTS- Social impacts identified



- *Employment*

Most flower farms employ more women than men – and it was perceived that chemicals would have impacts on women’s health and possibly their future offspring

- *Medical Facilities:*

Most firms do not have pre-employment medical test and post-employment medical tests which would be useful to determine the impact of chemicals;

- *Waste Disposal:*

Used containers from the farms were likely to be used by nearby communities for domestic purposes and this would expose them to health risks;

- *Occupational Health:*

Protective gear, which is normally sent to the flower farms by their “mother companies” from abroad not be suitable for the weather in Uganda; There was largely no awareness on the short term and long term risk of agrochemicals used at the flower farms by both the users and the employers;

- *Wages/Compensation:*

The pay for the workers was very low estimated to be an average of ;

- *Workers Rights:*

Trade unions are not active on most flower farms having been previously protected from trade unions since they were a new sector. However, this is starting to change.

# Interim results-specific scenarios studied



## ▪ THE STATUS QUO SCENARIO

In this scenario, Uganda would maintain the existing trading arrangement with the EU. Under the '*Everything but Arms*' (EBA) initiative.

However, Uganda would still have to adjust its trade policy to reduce tariffs on imports from the EU.

## ▪ UGANDA EUROCENTRIC SCENARIO

Uganda would sign an EPA with the EU and set its priority as securing improvements in market access on a long term and predictable basis.

“sensitive” products would be excluded from tariff reduction

## ▪ ESA EUROCENTRIC SCENARIO

This scenario looks at how Uganda's products might be affected when all ESA countries are granted the same level of market access by the EU.

# Interim results – Economic Trade Effects



- **Export growth**

Will grow due to increased market access and LDC preferential access

- **Costs of production**

Higher due to higher demands for standards/certification and may erode preferences

- **Competitiveness**

Lower because of the existence of other markets producing same products more efficiently (Kenya)

- **Trade deficit with EU**

Can improve if EU grants the assistance with supply side constraints that Uganda seeks and the market access for sensitive products

# Interim Results - Environmental Effects



## ▪ Conversion of Land to horticulture/floriculture:

At end of 2004, there were 180 ha and 93,000 ha under flower and vegetable production respectively; likely to expand six-fold, 21 times and seven-fold from 9 million ha to 70.7 ha, 247.3 ha and 210 ha under the *Status Quo*, *Uganda Eurocentric* and *ESA Eurocentric* scenarios ;costs of developing the land being very high

## ▪ Wetlands, which play the vital role of tertiary purification of effluent and storm water discharging into the lake, are already being encroached and degraded by settlement and cultivation;

Storm water flowing in Nakivubo Channel now carries along tones of soil straight into the lake.

Therefore, if the increased exports result in increased land area under production, there is an increasing likelihood that the above problems will increase and other agro-ecosystems, forest ecosystems and wetlands will be encroached upon to grow flowers, fruits and vegetables.

Further analysis and more information is still needed to quantify these effects

# Interim results - Env & biodiversity effects ctd



## ■ Pollution:

Management of agrochemicals and effluent from flower farms; Lake Victoria recorded dissolved oxygen (DO) levels of less than 2 mg/liter in Murchison Bay yet most fish species die off at DO of 4 mg/liter; *National Water & Sewerage Corporation (NWSC)* is experiencing rising treatment costs (data not available) because lake water is dirtier and increasingly expensive to treat to potable quality.

More information on quantities of chemical use will be sought to enable further analysis.

## ■ Water Use:

50,000 litres for every hectare per day.[2] For the 180 hectares of land used for floriculture, this is equivalent to 9,000,000 litres of water used per day.vs The national basic per capita consumption target is 20 liters/day; average rural per capita water consumption was found to be about 13 liters/day, well below the national target. Will need 247 million litres/day and 210.5 litres/ day under the *Uganda Eurocentric* and the *ESA Eurocentric* scenarios.

Further analysis on how this impacts on the communities around the flower farms and the nation as a while is needed.

- **Energy Use :**

The energy use in the sector is very high and the sector was hit significantly last year when the water levels of Lake Victoria reduced significantly resulting in power fluctuations. It is believed that some firms even closed. The 1000 bulbs per hectare is not sustainable even with the currently improved electricity supply. This puts pressure on the national grid and takes away from other users resulting into load shedding.

Other more economical sources of power need to be studied.

- **Further analysis and quantification on how water and energy use impacts on the nation as a whole needs to be done**

# Interim Results - Social Effects



- **Increased incomes for small holder out-grower schemes -linked to an exporters:**

The Uganda-*Eurocentric* scenario offers an opportunity for more smallholders to participate in this form of income generation and to increase the acreage and output.

- **Employment of women:**

Would increase BUT there are fears that the agrochemicals used in the floriculture industry have not been sufficiently tested to determine the potential health effects they may have. In some cases, there have been reports of agro-chemicals leading to a reduced working life for employees who are constantly exposed to the chemicals. There are also reports of ailments and persistent ill health, which also affect the productivity of labour of the flower firms.

**Further analysis is needed to quantify these impacts – and to determine what would be the optimal level of employment, chemical use, health facilities, working days, and so on, to achieve economic growth, but not hurt the social wellbeing of the workers (in particular the women who are deemed most vulnerable)**

# Preliminary Policy Recommendations



- **Government should consider making it mandatory for the flower sector to provide health insurance for their workers**
- **Government should also consider setting and enforcing a minimum wage for the sector.**
- **The companies that export flowers should invest in the restoration and maintenance of the ecosystem on which they rely.**
- **Government should set standards for minimum water use. And possibly shift the flower farming to areas with rich ground water potential**
- **Economic Instruments such as pollution tax – need feasibility study on how these instruments can be used in a way that does not hurt exports; but protects the environment.**
- ***Seek assistance for certification-. How can Government help?***
- ***Invest in Research – Research is needed to quantify the cost –benefits of certification; effects of pollution – There is need to link with other research institutions- and possibly the *Millenium Science Initiative at the Uganda Council of Science and Technology****

# Preliminary Policy Recommendations



- ***Consider Virtual Water Trade***

*Does Uganda have a comparative advantage?*- Uganda is still considered relatively water abundant – and might make a good case for producing flowers more than Kenya which is relatively water poor. But such a decision would have to be accompanied by policies to ensure that such water abundance is not abused to the point that the country ends up with water stress.

- ***Integrate Climate Change in the negotiations***

Climate change is likely to, among other things, exacerbate the loss of biodiversity; increase the risk of floods and droughts; reduce the reliability of hydropower and biomass production in some regions. Such changes will in turn affect agricultural productivity and land use. Climate change and its effects, should therefore, be at the center of the EPA negotiations, as they will shape the policy decisions on what we consume and how we trade in future.

- ***Integrate biodiversity conservation in all government development programmes***

The flower sector has several cross-cutting effects on other sub-sectors such as fisheries; which must always be taken into consideration.



# PROJECT IMPLEMENTATION UPDATE



The core project team and main implementing partners:

➤ **Mr. Francis Ogwal**

MSc (Environment and Natural Resources – Biological Option)  
Resource person on biodiversity and CBD related issues  
Project Coordination and supervision

➤ **Ms Alice Ruhweza**

MSc Applied Economics Private Consultant  
Resource person on Trade and Environment Issues

➤ **Mr. Agaba Raymond**

Resource person on EU-ACP-EPAs

➤ **Dr. Nichodemus Rudaheranwa**

PhD Economics – Senior research fellow - EPRC

➤ **Implementing partners**

Ministry of Tourism Trade and Industry, NEMA and EPRC



# PROJECT IMPLEMENTATION UPDATE



## Information on the composition and role of the PSC

- National Environment Management Authority (NEMA),
- Economic Policy Research Centre (EPRC)
- Ministry of Tourism, Trade and Industry (MTTI)
- National Biotrade programme
- Ministry of Finance Planning and Economic Development
- Ministry of Gender Labour and Social Development
- Ministry of Agriculture Animal Industry and Fisheries
- Technical Committee on Biodiversity Conservation
- Makerere University IER
- Nature Uganda (local NGO)
- Uganda Cleaner Production Centre
- United Nations Development Programme (UNDP)
- Horticultural Exporters Association (HORTEXA) – Private Sector

**The Role of PSC** is to provide technical guidance during the implementation of the project and ensure that the project achieves its objectives



# PROJECT IMPLEMENTATION UPDATE (cont)



## Summary of the launch workshop

- The project was launched on 29<sup>th</sup> May 2007 by the Permanent Secretary, Ministry of Water and Environment
- A wide range of stakeholders attended from government ministries/departments, research institutions, the private sector, NGOs, CSOs, development partners, UNEP and the media
- A summary of the project document was prepared and circulated to participants
- An Overview of UNEP initiative on Integrated Assessment of Trade-related Policies and Biological Diversity in the Agricultural Sector was made (*Dr. Mohamed Abdel Monem* from UNEP Nairobi)
- A brief overview of the EU-ACP EPAs was made by the Ministry of Tourism, Trade and Industry
- The project was presented to participants prior to the launch. Questions and comments from participants were answered/taken. Participants recommended that representation on the PSC be expanded to include more institution. The PSC now has 15 members from initial 12



# PROJECT IMPLEMENTATION UPDATE (cont)



## Summary of the capacity-building workshop

- The Capacity Building Workshop was conducted from 30-31 May 2007
- A wide range of stakeholders attended - government ministries and departments, research institutions, the private sector, NGOs, CSOs
- The main objective of the workshop was to create understanding about the project among the key stakeholders that will be consulted during the national review workshops
- Resource persons were from NEMA, EPRC and UNEP (Dr. *Mohamed Abdel Monem* and Philip Bubb)
- Issues to be considered during the IA were identified during the workshop – the conceptual framework

Describe other important activities conducted to date.



# PROJECT IMPLEMENTATION UPDATE (cont)



## Major activities for the next 6 months

- Participate in the International Review meeting and the International Steering committee meeting from 26–29 November 2007 in Geneva
- Hold a meeting with stakeholders from the horticulture sector-13 December 2007
- Prepare a draft report IA study – (End of January 2008)
- Hold a national stakeholders review workshop – draft IA report to be presented and discussed – (February 2008)
- Produce the revised version of the IA report after the national review workshop (February 2008)
- Present the revised report to the PSC for further input and thereafter produce the final version for submission to UNEP (March 2008)
- Undertake preparation of the national action plan basing on the outcome of the IA (March-April 2008).



# MAJOR ACHIEVEMENTS



## The main achievements to date

- Two Project Steering Committee meetings held (on 28<sup>th</sup> May 2007 and 15<sup>th</sup> November 2007)
- The launch and capacity building workshops were conducted
- An update of project activities was prepared and submitted to UNEP
- MTTI requested for a progress report which was provided. It was used to highlight some of the issues from the IA so far that needs to be considered in the on-going EU-ACP-EPAs negotiations
- The project was presented to the National Development Trade Policy Forum - a subcommittee under MTTI dealing with ACP-EU issues
- A meeting with the stakeholder holders from the floriculture sector was held on 8<sup>th</sup> November 2007



# MAIN CHALLENGES



## The key challenges encountered so far

- **The main challenge is timing of activities with the on-going EU-ACP EPAs negotiations.**

It would have been better for the project to complete the study and then submit the draft report to the Ministry of Tourism Trade and Industry (MTTI). This was not possible because MTTI needed the information much earlier in order to be able to include them in the EPA final draft.

- **Synchronizing activities** of the project with that of the Focal Point/desk for the EU-ACP-EPA in MTTI.

- **The format for writing the report was not known earlier.**

It would have been much better if this was forwarded to countries participating in the project early for their input.

- **Recruitment of Project Assistant** took longer than expected. The Project Assistant has just been recruited and started work with effect from 1st November 2007.