

REPUBLIC OF KENYA



MINISTRY OF AGRICULTURE  
OFFICE OF THE PERMANENT SECRETARY

Telegraphic Address "MINAG" NAIROBI  
Telex: 22766  
Telephone: 2718870/9  
Fax:2722411/2725774

KILIMO HOUSE  
CATHEDRAL ROAD  
P.O. Box 30028  
NAIROBI

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**COMMENTS ON THE DRAFT RISK ASSESSMENTS FOR  
PYRETHRINS POSTED ON APRIL 27, 2005 DOCKET OPP-2005-0043  
SUBMITTED BY THE MINISTRY OF AGRICULTURE, KENYA**

Sirs,

We would like to provide the following information and comments for inclusion in the Docket listed above in support of the re-registration of pyrethrins extracted from pyrethrum to show its importance and contribution to the Kenyan economy and to the thousands of farmers who grow it.

**General Comments**

**Kenya**

Although Kenya is the most developed economy in East Africa with a population of over 30 million people, the GDP per capita is only US\$ 390. Agriculture contributes almost 60% to the GDP (26% directly, 30% indirectly through linkage to manufacturing and other related activities). Employment in Kenya is largely based on agriculture with about 80% of the population depending on the sector. The major export commodities include tea, coffee, horticulture, pyrethrum and processed petroleum products.

Small and medium sized enterprises in Kenya serve as a primary engine for job creation and domestic commerce. Pyrethrum is one such enterprise that about two million Kenyans depend on. Kenya has adopted the Millenium Development Goals (MDGs) and the pyrethrum enterprise rests at the core of the MDGs as follows:

- ◆ Eradicate extreme poverty and hunger
- ◆ Ensure environment sustainability
- ◆ Develop a global partnership for development

### **Kenya—the major supplier of pyrethrum**

Kenya has been the largest source of natural pyrethrum for the last 60 years and currently produce over 70 percent of all pyrethrum traded in the world. Pyrethrins are the class of insecticides derived from the dried flowers of the pyrethrum daisy (*Chrysanthemum cinerariaefolium*) grown mainly in the Kenyan highlands. Pyrethrum is Kenya's second largest export to USA after tea. Pyrethrum provides valuable economic and social benefits to more than 200,000 subsistence and low-income farmers in Kenya. Pyrethrum has been grown in Kenya since the early 1930's and has been adopted by the growing community as part of their culture. The crop is delivered to Pyrethrum Board of Kenya (PBK) through intermediaries including cooperatives, self-help groups and PBK collection centers. PBK undertake the processing of the crop and markets/sells the refined extract to manufacturers and formulators of end-use products.

### **Pyrethrum--a sustainable cropping system**

Pyrethrum is a perennial crop that requires renewal once every three to four years and is grown in highland areas enjoying moderate well-distributed rainfall, cool night temperatures and rich volcanic soils. Pyrethrum is frequently grown in areas that cannot support other cash crops such as tea or coffee. Moreover, it is grown with limited inputs such as fertilizers, pesticides, and can be rotated with other subsistence food crops to compliment land use and avoid many pest problems. Pyrethrum farmers own on average 3 to 5 acres in which the homestead is located and on the same land, is grown not just pyrethrum but food crops such as potatoes, vegetables, maize, etc. for family consumption.

### **Pyrethrum—Economic Benefits**

For many Kenyan farmers, pyrethrum represents an important entry point to the monetized economy and provides considerable social benefits to farmers, their families and communities: It has contributed immensely to poverty eradication in Kenya particularly in the last 40 years. Pyrethrum prices remain stable throughout the year, therefore ensuring a stable income to the farmers. Many growers would otherwise be destitute having minimal disposable income to cater for family health, children's education and other personal requirements.

- 200,000 farm families benefit from pyrethrum as their primary cash crop
- PBK employs 500 people, with an increasing number of women in management.
- Ca. 300,000 jobs are attributable to the growth and stabilization of the industry
- With their dependants, about 2 million people depend on pyrethrum directly or indirectly

## Pyrethrum—Social Benefits

Pyrethrum production has generated numerous social benefits for communities including using a portion of this farm income to support building of schools, health centers, roads and other rural infrastructure.

- Two acres of pyrethrum will provide income to pay the school fees for three children in primary school and one child in secondary school or college.
- Pyrethrum earnings pay school fees for more than 300,000 children each year
- Pyrethrum is grown in schoolyards and tended by students for education purpose and to raise funds for purchasing supplies and equipment, and to improve facilities.

The cooperative structure of the pyrethrum industry brings community members together to determine how funds should be allocated for investments such as building new schools, bringing a sense of participative decision making to communities. Pyrethrum has a positive impact on families, as it is often a family enterprise that involves women and children as well. Many PBK employees have fond memories of picking pyrethrum after school and have pyrethrum to thank for their education. They stress how the children’s role of weeding and picking pyrethrum is important in their social development as responsible members of their family and community.

## Pyrethrum--Environmental Benefits

The impact of the pyrethrum cropping system on the environment is considerably lower than most other cash crops and especially in comparison to other agricultural industries in Kenya:

- The crop grows well with limited fossil fuel inputs. To a large extent no chemical fertilizers are utilized
- Weeding is generally done by hand and the plant itself is a natural insecticide
- It is relatively easy for growers to rotate the crop as a means of preventing and/or eliminating the major pest problems and diseases of the pyrethrum plant.
- The crop provides farmers with a viable income as an alternative to other destructive agricultural practices such as deforestation for charcoal burning

## Pyrethrum in Kenya: Summary of financial and non-financial capital impacts

Economic Capital	Environmental Capital	Social & Human Capital
US\$25 million in export sales value to Kenya. Pyrethrum is the second largest export to USA	Crop rotation helps maintain soil in 17,600 to 32,000 hectares on Kenyan highlands.	200,000 farm families can educate up to three or four children each year through elementary and high school.
Natural compound. Broad bio-efficacy & food handling approval.	Little chemical and fossil fuel inputs versus other cash crops like coffee, tea and flowers	500 direct employees at PBK make it the largest employer in Nakuru. Over 300,000 direct jobs are created by the pyrethrum industry.
200,000 farm families rely	Grows in the highlands, and	80% of proceeds returned to

on pyrethrum as their primary cash crop.	does not tie up the land like other cash crops.	farmers via a cooperative structure.
900,000 Kenyans (farm families and day workers, PBK employees) access monetized economy through pyrethrum. About 2 million people (including dependants) depend in pyrethrum directly or indirectly	Marc, a byproduct of pyrethrum is used as mosquito coil filler. Remaining vegetable by-product is used as animal feed supplement and in pest control in the soil.	Primary support in agricultural husbandry, technical support for pyrethrum growing and cooperative business management.
A cash crop that enhances food security by growing in rotation with subsistence crops (potatoes, corn, beans & dairy).	Pyrethrum crop relies on rainfall and does not require irrigation under normal weather conditions.	Women (and children) have primary role in pyrethrum harvesting. Women are beginning to be represented in management positions in PBK & cooperatives.

Yours sincerely,

**JAMES E.O. ONGWAE, EBS, OGW**  
**PERMANENT SECRETARY**