



Overview of the Organic Agriculture sector in Kenya opportunities and challenges for biopesticides

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KOAN

Kenya Organic Agriculture Network (KOAN)



- ❑ is the National Representative Body for organic agriculture activities in Kenya.
- ❑ It is a membership Organization with members spread throughout most of Kenya.
- ❑ KOAN's mandate is to facilitate and provide leadership and professional advisory services to all members and stakeholders in the areas of production, training, marketing, certification, lobbying and advocacy.
- ❑ Our Aim is to transform the organic movement into an industry.

What we do; Provision of technical



Organic certification and inspection services

- Voluntary codes of conduct that form the minimum requirements an operation must meet before it is certified organic
- **What is certified in Organic Agriculture?**
- Producers: the producer, fields and facilities used in production
- Their production system: The production method and processing methods, including documentation and precautionary measures taken to cater for the production system.
- Products: products are finally labeled with a mark/logo of the certification program.

**Marketing; Facilitate access to o
markets and businesses**



Marketing; Organic business



Lobby and participate in Pro OA policies



Ministry Of Agriculture

**STAKEHOLDERS CONSULTATIVE WORKSHOP
ON ORGANIC AGRICULTURE POLICY
IN KENYA.**



Kenya Organic Agriculture Netw

1st Dec 2010, Safari Park Hotel ,Nairobi -Kenya



Create awareness on the benefits



Farmer led drivers



Farmers repeatedly have the following concerns on conventional pesticides

- health and environmental hazards posed by the misuse of synthetic pesticides
- synthetic products are unaffordable or unavailable,
- packaged, frequently adulterated and sometimes sold after expiry date.
- poorly labelled and therefore difficult to use

Drivers cont'd



- Sustainable pest management is crucial for successful farming in sub-Saharan Africa as m it is heavily dependent on agriculture which has intensified the use of pesticides
- The demand for botanicals is poised to grow due to an increasing shift in consumer demands for safe food
- increase in organic farming
- lobbying from environmentalists.

Case study of Zambia



- ❑ A survey was carried out on ethno-botanical knowledge of termiticidal plants in Chongwe District, Lusaka province.
- ❑ The study revealed that a total of 23 species in Chongwe and Muswishi districts as well Central and Southern province were believed to contain termiticidal toxicity

Farmers knowledge



- ❑ The study showed that **indigenous knowledge** of termiticidal plants is a **novel component** that can become part of the **integrated pest management (IPM) strategy** for resource poor farmers.

Nkunika, P.O.Y. and Chinsembu, K.C.

(Farmers' ethno-botanical knowledge of termiticidal plant uses in Zambia)

Opportunities



- ❑ There is now considerable interest in the application of botanical pesticides for crop protection
- ❑ Botanicals are biodegradable and less persistent in the environment
- ❑ their use should lower risks to health and development of resistance

Challenges in development of Bio-pesticides; Data



- lack of easy to use data on the efficacy and safety
- no ready to use products
- inconsistent performance of crude extracts
- lack of clear practicable registration procedures.

Challenges cont'd; Intellectual property



- ❑ Firstly, the lack of knowledge and misconceptions about Intellectual Property Rights and their roles in the innovation process has been a big limitation.

The consequence of which has been limited use of IP information in research and development.

Intellectual property



- ❑ Secondly, legal, policy and institutional gaps in the IP systems renders the innovation system to perform sub-optimally.
- ❑ Inadequate IP skills and services to facilitate IP management decisions are not readily available to the researchers and managers in research institutions

Wayfoward; The big “disconnect”



- ❑ The numbers of successful botanical insecticides in use are dwarfed by the volume of research publications on this subject.
- ❑ There are already enough candidate plants available to improve the livelihoods of smallholder farmers in sub-Saharan African

Professor Murray Isman Dean, Faculty of Land and Food Systems, University of British Columbia

Intellectual property from a scientist



- ❑ In the development of products, the scientist has to cover issues that relate to
 - ❑ the access of biological resources for testing
 - ❑ the use of any intellectual property , the traditional uses of these resources have to be considered
- ❑ Greater knowledge about how to deal with these treaties in the early stages of a project should assist scientists focus on finding robust new leads.

**Professor Monique Simmonds Jodrell Laboratory,
Royal Botanic Gardens, Kew**

Intellectual property from a Regulator



With the emergence of the knowledge economy, intellectual property rights (IPR) have become an important component of the innovation system.

□ However, integration of an IPR system in the innovation system in Kenya and Africa, in general has not been very effective

**Paul Mathe Chege, Kenya Industrial Property
Institute**

Policy environment



- ❑ The demand for botanicals is poised to grow
- ❑ This suggests that regulations and protocols for production, their valuation and promotion would have to be reviewed to facilitate the development of the botanicals sector in Africa.

Sola P, Mvumi et al

Botanical pesticides production, trade and regulatory mechanisms in sub-Saharan Africa:

In summary



- ❑ **Greater emphasis** should be placed on demonstrating the **practical utility** of these plants
- ❑ **More knowledge** about how to deal with **Trade-Related aspects of Intellectual Property rights (TRIPS)** and the **Convention on Biological Diversity (CBD)** in the early stages of a project should assist **scientists focus** on finding robust new leads.

Summary



- ❑ **Addressing the IP challenge for scientists and communities** will foster commercialization and leveraging of research outputs
- ❑ **Regulations and protocols** for production, their valuation and promotion would have to be reviewed to facilitate the **development of the botanicals sector** in Africa.