DEVELOPMENT OF KENYAN CUT FLOWER SECTOR

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Kenya Plant Health Inspectorate Service (KEPHIS)
(website: www.kephis.org)

KEPHIS Mandate

• The Kenya Plant Health Inspectorate Service (KEPHIS) was established in 1996.
• Mandate includes;
  • Seed Certification;
  • Plant Protection;
  • Plant pathological analyzes
  • Plant Variety Evaluation, Release and Registration;
  • Plant Variety Protection;
PVP Legislative Framework

• Legislation for protection of plant varieties in Kenya is contained in the Seeds and Plant Varieties Act (1972), which became operational in 1975 and was revised in 1991 and amended in 2016
• Official regulations to guide the implementation of PVP were finalised and gazetted in the supplementary issue of the Seeds and Plant Varieties Act (Cap 326) of November 1994
• The office to administer the PVP was established in 1997 and has functioned under KEPHIS since 1998

Purpose of Plant Variety Protection

• The development of a new variety is usually a long and costly undertaking.
• The Plant Breeders' Rights gives breeders a chance to recoup costs and investment from the breeding program.
• Without the legal protection of rights, breeders can lose control of the commercialization of new varieties to persons who did not contribute towards the breeding costs.
Purpose of Plant Variety Protection

• By providing an incentive to breeders, Plant Breeders' Rights encourage investment and effort in plant breeding.
• The rights’ scheme also allows Kenyans access internationally bred varieties which would not be availed to them without legal protection of these varieties.
• The result is that farmers gain access to an increased number and range of improved varieties.

Purpose of Plant Variety Protection

• Plant Breeders' Rights therefore benefit not only the breeders, but farming communities and the general public.
Status of Plant Variety Protection

- A total of 1489 applications for PVP received by July 2016
  - Local (Kenyan) = 37.5% applications
  - Foreign = 62.5% applications
- Local applicants are from:
  - Public institutions = 88 %
  - Private institutions = 12 %
- Out of the total applications
  - Food crops = 22 %
  - Cash crops = 77 %
  - Forest Trees (Eucalyptus) = 1 %
  - 49 grants in 2015/2016
Table 1. Distribution of PVP Applications by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>35.3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>33.6</td>
</tr>
<tr>
<td>Germany</td>
<td>11.8</td>
</tr>
<tr>
<td>France</td>
<td>7.1</td>
</tr>
<tr>
<td>United States</td>
<td>1.1</td>
</tr>
<tr>
<td>Israel</td>
<td>0.9</td>
</tr>
<tr>
<td>Italy</td>
<td>0.6</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.6</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.6</td>
</tr>
<tr>
<td>Japan</td>
<td>0.6</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.6</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.6</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.1</td>
</tr>
<tr>
<td>Australia</td>
<td>0.4</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.2</td>
</tr>
<tr>
<td>Korea</td>
<td>0.1</td>
</tr>
<tr>
<td>Others</td>
<td>5.82</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Number of PBR applications per Year

![Graph showing the number of PBR applications per year for Residents and Non Residents from 1997 to 2013. The graph includes a chart and a bar chart. The chart shows a trend where the number of PVP operational and UPOV membership varies over the years. The bar chart provides a visual representation of the number of applications for each year, with a color-coded legend for Residents and Non Residents.](image-url)
Figure 1: Distribution of PVP Applications for Agricultural Crops in Kenya

Figure 2. Distribution of Applications for Horticultural Crops in Kenya
Impact of Plant Variety Protection in Kenya

- Agriculture sector accounts for 22% of GDP.
- The national GDP from the horticulture sub-sector is 3% of which 1.6% is from the flower industry.
- The floriculture industry has recorded growth in volume and value of cut flowers exported every year.
- According to Kenya National Bureau of Statistics in 2013, the floriculture industry exported 124,858 tons valued at Kshs 46.3 billion.
- Plant Variety Protection enables breeders to sell their elite varieties in Kenya since they are protected.

Growth of floriculture in Kenya

Source: HCDA
Varieties of Alstroemeria flowers grown in Kenya

Cut flower industry in Kenya cont.

• Kenya leads in the export of rose cut flowers to the European Union (EU) with a market share of about 38%.
• The most popular flowers we have in Kenya are:
  ➢ Carnations Spray and Standard
  ➢ Roses
  ➢ Statice
  ➢ Alstromeria
  ➢ Lilies
  ➢ Hypericum
FLOWER GROWING AREAS IN KENYA

The main production areas are around Lake Naivasha, Mt. Kenya, Nairobi, Thika, Kiambu, Athi River, Kitale, Nakuru, Kericho, Nyandarua, Transzoia, Uasin Gichu and Eastern Kenya.

Source: KFC 2017

KEPHIS inspector carrying out routine inspection of Hydrangea flowers
Impact of PVP in Kenya

Employment creation
- It is estimated that over 500,000 people (including over 90,000 flower farm employees) depend on the floriculture industry.

Impact of PVP in Kenya

- Increase in introduction of crop varieties in the country is as a result of enhanced variety description the latter made possible by:-
  - Readily available UPOV test guidelines for most of the Agricultural crops
  - Trained personnel by UPOV on development of national test guidelines
  - Collaboration and co operation between the breeders and the testing authority on variety description.
Impact of PVP in Kenya

- Increased interest in Kenya by foreign breeders
  - Breeders outside Kenya submit their varieties in the national protection system
  - International Breeders have incorporated their companies domestically to produce and market their varieties.
  - Capacity building, funding, germplasm exchange and commercialization of varieties.

Impact of PVP in Kenya

Vibrant Flower Industry

- Domestic companies;
  - have access to enhanced Foreign Bred Materials of ornamental varieties developed by international breeders.
  - Domestic entities receive and market new materials from foreign breeders on their behalf or under license
  - Domestic Companies have also extended partnerships with farmers for on-farm production of newly bred varieties.
Impact of PVP in Kenya

7. Increased level of awareness of PVP service
   - Has been achieved through elaborate outreach programme to sensitize stakeholders the objectives and processes of PVP
   - Tangible and measurable indicators:
     • development of institutional IP policy by most of institutions doing research in plant sciences.
     • National Seed policy

Impact of PVP on cut flower in Kenya

8. International cooperation
   - Technical support e.g. training of examiners
   - Exchange of test reports – shortens time for DUS examination and reduced cost

9. Mutual exchange of information
   - Access to data through UPOV
   - Exchange of journals on PVP
   - Exchange of training materials
Impact of PVP in Kenya

• Plant Variety Protection has contributed significantly in the development of the formal seed sector, where farmers have access to high quality seeds.
• A formal seed sector cushions farmers from receiving seeds that are diseased considering that seeds have high potential for spread of diseases and pests.
• Informal exchange of seeds by farmers leads to build up of pests and diseases.

Plant Breeder’s Rights Enforcement

➢ The enforcement of rights is by the owner of the rights.
➢ The Act has provision for the Plant Breeder whose rights are infringed to seek remedy in the courts of law by means of damages, injunction, account or otherwise.
➢ The Act also provides for Plant and Seed Tribunal to determine any dispute arising from PVP.
➢ Additionally, KEPHIS being the designated Authority for phytosanitary, seed certification and PVP matters, has the added advantage of helping the enforcement of PBR through the licensing and certification process
Challenges

- Facilities to test ornamental varieties (which form the bulk of PVP applications)
- As a result, most of the PVP titles for ornamentals have been based on results taken over from other UPOV member states or authorities
- Changing of laws takes a long time especially at this time when the process of implementation of a new constitution is on and several laws are lined up for approval by parliament.
- **Seed production is low for crops where few varieties or none are protected**
- **Maize remains the most traded crop.**
Thank you