ToRs. Guidelines to Minimize the Impact of Pesticides on Bees

1. What are Key Issues:
   I. Lack of / or inadequate pollinator friendly pesticides policies, regulations and guidelines.
   II. Lack of data and information on impacts of pesticides on bees.
   III. Decline of bees colony populations.
   IV. Limited knowledge on Good Apiculture Practices (GAP) e.g. Establishment of apiary site – selection of site and isolation distance, type of beehives used.
   V. Poor coordination among different actors in honey bee industry and other agricultural actors.
   VI. Contamination of bee products.
   VII. Inadequate knowledge on the economic value of the pollination service
VIII. Inadequate extension services.

IX. Inadequate transboundary policies in management of biodiversity and the use of pesticides.

X. Application method of pesticides e.g. aerial application is more detrimental, time of application, crop requirements and appropriate pesticides.

XI. Inappropriate use of pesticides around bee colonies to control pests and diseases.

2. Key guiding principles

I. Lack of pollinator friendly pesticides policies
   - Formulation of friendly policies, regulation and guidelines on pollinators and other beneficial insects.
• Conduct studies and research to identify the exposure routes of pesticides to pollinators and how to minimize this risk.

II. Lack of information and data on impact of pesticides on bees
• Research, Training, Information Dissemination and Advocacy Awareness creation on Pollinator health.
• Increased funding for research on the impact of pesticides on bees and other pollinators.

III. Decline of bees colony populations
• Undertake collaborative research on colony decline in Africa
• Undertake bee health studies
• Strengthen bee keepers associations

IV. Inadequate knowledge on Good Apiculture Practices (GAP) e.g. Establishment of apiary site – selection of site and isolation distance, type of beehives used.

• Sensitization and awareness creation on the site selection and isolation distance for all stakeholders
• Creation of bee reserves/zones
• Adoption of good apiary selection criteria
• Encourage the use of organic pesticides, natural-botanical pesticides and Integrated pest management (IPM)
• Appropriate selection of bee keeping equipment
V. Lack of coordination among different actors in honey bee industry

- Establishment of national multi-stakeholder platform for information exchange among stakeholders and networking
- Inter-ministerial harmonization of rules, regulation and standards related to apiculture

VI. Contamination of bee products

- Quality assurance and safety standards
- Certification and sanctification of bee products
- Establish or create accredited (ISO or GLP) laboratories
VII. No knowledge on the economic value of the pollination service

- Conduct research on economic value of pollination services
- Create awareness/sensitization/lobbying/advocacy
- Establishment of monetary value of bee products

VIII. Inadequate extension services

- Linking research and extension
- Create national capacity building program to increase skilled extension staff in apiculture
- Encourage private sector extension services and involvement (Public Private Partnership PPP)
- Encourage integration of apiculture curriculum in higher learning institutions
• Encourage more research on bee keeping to generate more information and knowledge for all stakeholders

IX. Inadequate transboundary policies in management of biodiversity against pesticides
• Notification of neighboring countries about chance of migratory pests and diseases
• Banning or restricting of importation of used beekeeping equipment and bees.

X. Application Method of pesticides eg aerial application is more detrimental, time of application, and crop requirements
• Use appropriate pesticides application.
• Timely application and coordination.
• Restrictions of certain pesticides in certain crops.
• Adhere to correct standards appropriate for the type of application method used.
• Create buffer zones

XI. Inappropriate use of pesticides around bee colonies to control mites and ants
• Encourage the use IPM and natural selection
• Promotion of the use natural antibiotics eg. propolis based antibiotics
• Promote research on appropriate pesticides and recommended dosage
• Burn importation of bees and used bee keeping equipment in Africa
• Punitive measures on offenders