

**INTERNATIONAL WORKSHOP ON
POISONING & VULTURES IN THE
EUROPEAN-AFRICAN FLYWAY
RONDA/MALAGA, SPAIN**

The situation in Ethiopia

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OUTLINE OF PRESENTATION

- ◉ Background and General Premises
- ◉ Vulture Poisoning in Ethiopia
- ◉ Affected Vulture species
- ◉ Known and suspected poisons
- ◉ Trends and concerns of poisoning
- ◉ Potential human health repercussions
- ◉ Legal framework/mechanism
- ◉ Deterrents/penalties against poisoning
- ◉ Resources at hand
- ◉ Resources needed

BACKGROUND

- ◉ Ethiopia has 8 spp of Vultures. This includes the Bearded Vulture.
- ◉ Of these, two are migrants while the rest are residents. The Egyptian Vulture has a large migrant population while the Griffon Vulture only arrives in Sept-Oct.
- ◉ Vultures occupy a wide and diverse ecosystem in the country. This varies from afro-alpine ecosystems to lightly wooded and grassland savannahs and deserts.
- ◉ With their rubbish dumps, urban and rural areas (in towns villages and farmlands) are perhaps the best sites to observe vultures in the country.

GENERAL PREMISES

- ◉ We are dealing with a very large country with few persons doing work on birds in general and vultures specifically.
- ◉ The level of awareness of Ethiopians on birds not to speak of vulture poisoning is very low indeed.
- ◉ At present there is no system in place to monitor and control wildlife poisoning in general.

VULTURE POISONING IN ETHIOPIA

- ◉ Vulture poisoning is almost always accidental and unpremeditated in Ethiopia.
- ◉ It occurs in the event of poisoning rodents, pest birds (quelea and weavers), dogs, jackals and hyenas.
- ◉ Increasingly pesticide application on crops and vegetables also exposes vultures to the danger of poisoning.

AFFECTED VULTURE SPECIES

- Almost all species would be affected but prevalence is anticipated to be higher in the following: (*This is based on the association of vultures to human beings around settlements and dumps*).
 - Hooded
 - Ruppell's Griffon and White-backed
 - Lappet-faced
 - White-headed
 - Egyptian Vulture would be the # one target in the north-eastern parts of the country.

KNOWN AND SUSPECTED POISONS

- ◉ Ministry of Agriculture in Ethiopia maintains a list of registered pesticides.
- ◉ These include 128 insecticides, 77 herbicides, 75 fungicides, 5 rodenticides, 1 avicide (**queltox**), 1 nematicide, 10 miticides and 3 plant growth regulators.
- ◉ There are also at least 8 different types of household insecticides (aerosols etc.)

KNOWN AND SUSPECTED POISONS

- A large proportion of poisons used are organophosphates including **Acephate, Carbosulfan, Malathion, Chlorpyrifos, Dimethoate, Diazinon** etc...
- There is also a registered use of **Endosulfan** an organochlorine. This poison more than anything else could perhaps be the most toxic, mobile, bioaccumulant with some persistent nature.

KNOWN AND SUSPECTED POISONS

- ◉ **Endosulfan** is still in use with restrictions for coffee and vegetables.
- ◉ While there is no hard evidence it is also not believed to be acute.
- ◉ **DDT** is present in the country. It is one of the few countries of the world which was permitted to use it for the eradication of malaria.
- ◉ Flower farms are on the increase and use large amounts of pesticides for their products. Negative effects of poisons are especially seen in and around lakes in the Rift Valley region of the country.

KNOWN AND SUSPECTED POISONS

- ◉ Sadly, some of the pesticides that should have only be used for the production of flowers are getting out and being used by local farmers for horticultural production.
- ◉ There happens to be poison smuggling through the borders in the east (Somalia and Djibouti) and south (Kenya).
- ◉ Some of the unregistered and high risk pesticides like **Heptachlor** come through the borders.
- ◉ Quelea and weaver birds are sprayed from time to time with high mortality of non-target species. There is no data on numbers and types of species affected.

TRENDS IN POISONING

- Cotton is the most pesticide-intensive crop in Ethiopia (as well as in many other countries).
- Commercial cotton fields in Afar (northeast), Arbaminch (south), Gambella (west) and Humera (northwest) are periodically sprayed from air with various chemicals.
- Dogs are killed by municipalities all over the country but especially in larger settlements i.e. Addis Ababa, Nazreth, Awassa using Strychnine.
- Jackals and Hyaenas are killed from time to time using undetermined poisons.

RISK TO HUMAN LIFE

- Most farmers especially those that grow vegetables in the rift make indiscriminate use of poisons. It appears they have access to registered as well as unregistered poisons.
- Farmers do not heed advice from agriculture offices (Development Agents) on use and abuse of pesticides.
- To the detriment of their health, they do not take proper precautions (handling and clothing) while applying poisons.

WHAT IS BEING DONE?

- ◉ In Ethiopia, a major sector that can negatively impact soaring birds is agriculture with all its use of pesticides
- ◉ Ethiopia participates in the UNEP stockpiles programme that is in the process of removing huge amounts of banned and obsolete pesticides from various centres in the country.
- ◉ Ethiopia is one of ten countries participating in the Migratory Soaring Birds project.

WHAT IS BEING DONE?

- This project has the objective of integrating conservation of soaring birds along their flyway in the Middle East and Africa by identifying major sectors in 11 countries working with partners.
- An important MSB workshop is underway in Addis Ababa this week (10th - 12th April) discussing the issues and problems associated with agro-chemicals on soaring birds.

LEGAL FRAMEWORK

- ◉ Ethiopia is signatory to the Stockholm Convention on PoPs and Basel.
- ◉ There is also a national “Pesticide Residue Proclamation”
- ◉ Ethiopia has a Environmental Protection Framework where use of pesticides is stressed.
- ◉ While policies and legal frameworks are available, there are problems in capacity, enforcement and awareness of issues.
- ◉ Proactive work is lacking.

DETERRENTS/PENALTIES

- ◉ There is at present no enforcement of misuse or abuse of various poisons (pesticides insecticides etc.) in Ethiopia

RESOURCES PRESENT

- As of recent, there is increasing pesticide residue monitoring especially with regards to food under the Ethiopian Conformity Assessment office. This is under the Ethiopian Standards Agency. Dr Tarekegn Birhanu is the person leading the initiative.
- Major work has been done on food items and some work on tissues of animals.

RESOURCES PRESENT

- There are labs in Ethiopia with equipment and capacity. The country is training technicians in this level even though more would be needed.
- Education: Mr. Yared Beyene is going to study for a PhD in Japan. His research will be on the influence of pesticides/insecticides on Lake Zway, Abijata and Awassa.

RESOURCES NEEDED

- ◉ While there is a possibility of doing pesticide residue research in Ethiopia conducting the experiments is relatively expensive.
- ◉ On the other hand bench fees and fees per sample are not that expensive as compared to other countries i.e. Europe.
- ◉ The institution doing the work would need some kind of ISO certification for accreditation.
- ◉ There is a need for more trained persons and funded projects.

WAY FORWARD

- ◉ Ethiopia hosts a good population of vultures that have increasingly become vulnerable to the use of various agro-chemicals.
- ◉ There is no evidence of mass die-off of vultures to date and data is lacking on the effect of poisons on birds.
- ◉ Awareness on use and abuse of pesticides is lacking and it is crucial that we need a lead environmental agency to develop a strategy for mitigating the impacts on environment.

WAY FORWARD

- ⦿ Research is a priority but high expenses seem to put off opportunities of collecting and sampling evidences.
- ⦿ Environmental education and awareness at all levels especially targeting farmers, students, local government authorities, decision-makers and jurisdiction.
- ⦿ Serious measures on the legal front is imperative and missing out. **If biodiversity concerns do not remove inertia and ignite action, attach concern with other issues i.e. public health.**

THANK YOU!