

Project Update: August 2019

Activity 5: Habitat assessment

historically, the environment within and surrounding Marigat, Perkerra Irrigation is part, was characterised by almost bare ground with loose soils that were prone to erosion fulfilled by water and wind leading to serious loss of the soils on some sites. Most of the vegetation of this area is dominated by *Acacia* species and the species that are currently facing threat from charcoal burners are the *Acacia tortilis*. There are strips of huge acacias along the river and scattered elsewhere, riverine is less than 1 km from the farmland.

The current situation of the habitat at Perkerra is nothing more than countable acacias and fig trees growing along the roads and water distribution channels, which also acts as land block boundaries and sections (E.g. Block 1, 2, 3...and L1, L2, L3, R1, R2, and R3 respectively). The *Prosopis juliflora* (invasive) an introduced plant species with the objective of mitigating the problem of erosion on the bare Marigat grounds in the 1990s. The plant has helped much in land cover and reduces soil erosion, though its aggressiveness has resulted in a number of problems that include injuries to farmers and their livestock, blocking water channels and encroachments to roads and farms.



Figure 1: Types of common trees in Perkerra Irrigation Scheme and remnants of the original trees

The dynamics of land use in Perkerra Irrigation: it is so rapid, giving farmers a chance to grow different crops annually, seed growing (maize and rice) for Kenya Seed Company is their main programme given priority by both the farmers and their management. The programme favours the farmers in many ways; they get farm inputs and sell the products at slightly higher than the same product meant for consumption. Once Kenya seeds are harvested, the lands are open for surplus production (beans, sunflower, tomatoes, onions, green grams, watermelon, and maize), other crops grown without much consideration of programmes are mangoes, pawpaw and bananas.



Figure 2: Maize grown for Kenya Seed Company which seeds are select from them

Farmers face a myriad of challenges ranging from pests, diseases, theft, to unstable market of their products. Tomatoes, for instance, need a lot of care to ensure good quality production; farmers spend much in that process of frequent spraying to prevent diseases and pest from destroying crops, below (Fig 3) are tomatoes, which fails due to diseases that overwhelm the owner.



Figure 3: Tomatoes destroyed by fungal diseases, the owner count losses despite applying pesticides and fungicides

Farmers struggle to control diseases/pests or to protect crops from losses to diseases mostly and pests, about eight agrochemical outlets in Marigat (a small town) clearly

indicate booming of the business and demand for the products. Below pictures taken during our surveys show heavy use of the chemicals by all the farmers, Perkerra temperatures are good for invertebrates and fungus does farmers have to plan well on how to safeguard crops from losses.



Figure 4: Some of the fungicides and pesticides that famers use to protect their crops. When it rains, Perkerra farms become very green (Fig 5 bellow) and attract wildlife (birds) to feed and breed at the sites, weeds and crops provide good environment for them to breed and ready food to feed their chicks.





Figure 5: Type of vegetation on the farm edges when it rains, it attracts pest and birds to the farms

Activity 6: Farmers' workshop

Although Perkerra farmers' are always, busy throughout the year, I couldn't miss some to have them share and listen to information on birds found in their farms and how well they can live with them with minimal destruction of the crops. The best places they prefer to have such workshops are around the farms, where we frequently consult them through their chairperson in deciding where to meet, time and venues, which favours their tight schedules.

They are good people ready to listen and share their experiences in farming; they are familiar with destructive birds, which crops and time of destruction or stage of crop affected by birds.

We strongly encourage them to embrace the use of organic fertiliser/pesticides, report problem birds to the authority and inform them about endangered birds in their farms (for example grey crowned crane) and Madagascar pond heron.





Figure 6: Famers' putting on their workshop T-shirts and holding the banner carrying Rufford foundation logo and the message meant for them