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The effects of human-wildlife conflicts on food security
around the Bia Conservation Area, Ghana

Diploma thesis

submitted by

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Abstract

Human-wildlife conflicts (HWC) are a serious problem around the Bia Conservation Area (BCA) in Ghana with many farmers experiencing high levels of crop-raiding. This study determined the wildlife species involved in HWC and examined the effects of crop-raiding on the livelihood of people around the BCA. The kind and extent of damage was recorded and possible factors influencing the risk of raids were investigated. Also, prevention measures applied by farmers and their pay-offs were analyzed. 100 interviews were conducted in 10 fringe communities around the BCA. The presence and relative densities of different wildlife species were assessed through the walking of 10 one-kilometer transects in the transition zone of the BCA as well as through the monitoring of 20 spoor plots in the adjacent farmland.

Crop-raiding was found to take place all around the BCA but was most severe in the northern part. Elephants were identified as the major conflict generating species, but also smaller mammals such as squirrels, bushbuck, cane rats and civets were found to cause damage. The relative density for squirrels was by far the highest of all species recorded in the farmland. Water availability on a farm increased the risk of crop-raid incidents. Cocoa as the most abundant crop in the area was also the most raided one. However, all other major crops like cassava, yam, cocoyam and plantain were also susceptible to raids. Farmers applied several traditional prevention measures which were only partly effective. Hardly any non-traditional methods such as the chili grease fence were used.

The establishment of a buffer zone around the BCA was recommended, in which crops unpalatable for wildlife such as chili pepper should be planted. Pepper as a natural irritant could then serve as basic material for wildlife repellent measures like the chili grease fence or chili-dung bricks. However, further education of farmers on such mitigation measures is needed, as is general training on improved farming practices.

Key words: Human-wildlife conflict, crop-raiding, Ghana, transects, spoor plots, chili pepper