

# **The Tragedy of Bird Scaring**

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Unaccounted impacts on individual and social wellbeing are referred to in mainstream economic literature as externalities. In other words, those costs that are unaccounted for in a transaction which are mainly assumed to parties who do not participate in the exchange (Baumol and Oates, 1988). According to Environmental and Resource Economics (ERE), a branch of neoclassical economics, internalization of externalities will lead to economically efficient outcomes as market prices move closer to equilibrium prices, consequently spurring improvements in social wellbeing. Most internalization efforts focus on allocation of property rights and defining some kind of price to hidden costs. At the core of these efforts is the notion that actors engaging in a transaction behave as rational economic agents who only aim at maximizing utility at the individual level and by doing so social wellbeing will be improved (Varoufakis, 1998). However, there is an alternative body of literature that describes these unaccounted effects as ‘cost-shifting practices’ (Kapp, 1969; Martinez-Alier, 2002). According to this view, there are no external costs to production, but trade and production objectives and boundaries should be reassessed to include these effects that once were considered as external to the production and trade decision-making process. Furthermore, and in opposition to mainstream economic understanding of unaccounted impacts, a cost-shifting practice approach understands human beings as bearers of plural rationalities who sometimes make decisions individually, and at other times collectively (Temper and Martinez-Alier, 2013). To this effect, aggregation of individual wellbeing does not lead to a complete understanding of social wellbeing. This paper analyses obstacles

in meeting food security objectives in semiarid Kenya and by doing so also challenges mainstream economic advice, which advocates a private understanding of environmental externalities and promotes individualised, technological solutions.

In some regions of Africa, 90% of farmers report crop loss to wildlife (Hill, 1997). Several studies have focused on large mammal crop raids, such as baboons and pigs (Hill, 1997), or highlighted the importance of crop losses to small pests such as insects (Grisley, 1997); other papers have unravelled farmers' perceptions of wildlife raids (Songa et al., 2002). In general, efforts have been devoted to minimize human-wildlife conflict by examining compensatory schemes to crop losses (Rollins and Briggs III, 1996; Bulte and Rondeau, 2007), or developing technologies to reduce crop raids (Mallamaire, 1961; Lenné, 2000). In particular, bird crop raids are usual events in many agricultural areas of Africa, requiring farmers to sit and invigilate their lands for long hours - an isolating, debilitating and developmentally stunting process. This presents an important challenge for socio-economic development and food security at the household level – a challenge further complicated by the onset of climate change in the region, characterised by increased frequency and intensity of drought events (Alila and Atieno, 2006). Crop raids by birds are even more common if land is dedicated to the production of High Value Traditional Crop (HVTC) cereals such as sorghum and millet which are of preference to bird species due to their seed size (Mallamaire, 1961; Ruelle and Bruggers, 1982) – consequently, crop raids by birds and bird scaring are a significant barrier to climate change adaptation in the region, constraining the greater adoption of these 'climate-smart' (FAO, 2013a), drought-resistant crops.

This paper firstly provides a brief summary of Kenya-specific food security challenges and the importance of HVTCs. and offers an overview of the existing literature on crop loss to pests. Following this is an explanation of the study site and methodology, before data is presented on effort and time expenditure dedicated to different agricultural activities per cropping system in semi-arid Kenya. It then singles out bird scaring as one of the most time consuming activities and compares solutions to bird scaring in terms of social and cultural compatibility and effectiveness for poor farmers. This paper finishes by discussing the limitations of

the use of the term externality and its derived solutions in the case of bird scaring as it assumes a narrow rationality, stable boundaries and low transaction costs.