Cost benefit analysis for selected crops in Kenya

a) Maize

Maize farming among small holder farmers in Kenya is labour intensive with the main cost drivers being weeding, harvesting and fertilizer estimated at 17%, 13%, and 16% respectively while post-harvest loses are estimated at 5%. The total cost of production is estimated at USD 219.2 per acre while the yield level is 1710kgs/acre. At a farm gate price of USD 0.27, maize production has a cost benefit ratio of 2.1.

Maize farming cost drivers in Kenya small holder farming

Source: Farm Concern International, FCI, Cost Benefit Analysis (2016)
b) Cassava

Cuttings, weeding, harvesting and planting are the main cost drivers in cassava production jointly accounting for 89% of the total production cost. The yield level is estimated at 13MT/acre while the average farm gate price is about USD 0.1. The cost benefit ratio is estimated at 2.9 meaning that every dollar invested in cassava production earns a farmer USD 2.9 while the net income is about USD 825 per acre.

Cassava farming cost drivers among smallholder farmers in Kenya

Source: Farm Concern International, FCI, Cost benefit analysis (2016)
c) Onions

The main cost drivers in onion production are planting, fertilizer, seeds and weed control. With sufficient rainfall or supplementing rain water with small scale irrigation, a yield of 17MT per acre is realized. At farm gate price of USD 0.3, investment in onion production has a cost benefit ratio of 5.8 meaning that every Dollar invested in onions production earns a farmer USD 5.8. From one acre, a farmer can make a net income of USD 4077.3.

Small holder onion production cost drivers in Kenya

Source: Farm Concern International, FCI, Cost Benefit Analysis (2016)
From the cost benefit analysis on the selected crops in Kenya, maize has the lowest net income per acre compared to onions and cassava. Although onion is the most profitable crop, it requires high initial investment which might be a challenge for most resource constrained farmers. In one year, maize and onions can attain at least two production cycles compared to cassava which can only be harvested once in an year.

Cost benefit comparison for selected crops in Kenya

Source: Farm Concern International, FCI, Cost Benefit Analysis (2016)