

Economics of Small-Scale Pump Irrigation, Somali Region, Ethiopia

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Impact Assessment

In 2010 an assessment was conducted to assess the impact of an NGO project that provided water pumps, fuel and other assistance to 'Asset Building Groups' (ABGs) in Gode, Kelafo and Mustahil zones, Somali Region, Ethiopia. Assessment questions included an economic evaluation of household-level benefits and costs, and constraints and opportunities of the approach.



Figures 1 and 2. Small-scale pump irrigation along the Wabi Shabelle River, Somali Region

Methodology

Interviews and participatory methods were used with 104 project households (out of 650 households), and focus group discussions were held in 8 project sites (out of 15 sites). Information was collected on production levels, income from produce sales, the costs of production, and perceived benefits and risks of irrigated agriculture.

Key findings

The benefits of irrigated agriculture need to be viewed against costs and risks.

- Crop failures were common due to pests, bird damage, flooding and wind storms, and production was hindered by increasing soil salinity.
- The price of fuel increased by 54% over a two-year period
- Markets and produce prices were unreliable; food aid disrupted prices.

Table 1. Cost-benefits of aid-assisted irrigated agriculture

Type of analysis	Cost-benefit ratio
One planting with harvest and sales	1:0.4
Three plantings with harvests and sales	1:0.7



Figures 3 to 6. The cons – maize stalk borer damage; failed banana crop; soil salinity; food aid in markets

Recommendations

- Small-scale irrigated agriculture is a risky venture in the remote zones of Somali Region, with a range of natural and man-made threats to crop production and sales.
- Well-established private sector provision of pump services, and pre-existing community systems for land and pump management need to be supported. It was unclear how aid projects could improve on the systems already on the ground.

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References

PLI Policy Project (2010). Impact Assessment of Small-Scale Pump Irrigation in the Somali Region of Ethiopia. Feinstein International Center, Tufts University, Addis Ababa.