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Data in Brief





Data Article

Data on farmers' determinants of manure and inorganic fertiliser use in the semi-arid Ethiopian Rift Valley



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ABSTRACT

This article contains the data on farmers' determinants of binary choices for manure use (i.e., manure is used or unused) and fertiliser use (i.e., fertiliser is used or unused) at their fields in semiarid northern Ethiopian Rift Valley. The data includes (i) a schematic diagram that represents local farmers' distinctions of the crop field types in terms of the distance from their houses and soil fertility and (ii) a table that describes a representative farmer's crop sequences and soil fertilisation methods in two consecutive years. Details about the literature review of the previous case studies on farmers' determinants of manure application technique adoption conducted in some parts of sub-Saharan Africa where cattle dung is used for manure are also summarized in a table. A table shows descriptive statistics of the independent variables used in the empirical analyses. Summary statistics of 4 binomial logit models and 4 multinomial logit models are indicated in a table, which represent model fit. Last two tables exhibited in this article show the logit analyses.

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Specifications Table

Subject area More specific subject area Agricultural Economics Innovative technology adoption study

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Type of data	Figure, tables, text file
How data was	Interviews with farmers, field observation, semi-structured questionnaire survey,
acquired	binomial logit analysis, multinomial logit analysis
Data format	Raw and analysed
Experimental	524 plot data were collected from farmers' fields through a semi-structured
factors	questionnaire survey
Experimental	Logit analyses to examine farmers' determinants of soil fertilisation options
features	
Data source	Two districts (Adama and Boset) in the semi-arid northern Ethiopian Rift Valley
location	
Data accessibility	Data is with this article

Value of the data

- The data include the figure that describes local farmers' distinctions of the crop field types in terms of the distance from their houses and soil fertility in semi-arid northern Ethiopian Rift Valley.
- The data include the table that shows a representative farmer's crop sequences and soil fertilisation methods.
- These data are a benchmark for farmers' determinants of manure application and fertiliser use at their crop fields in Ethiopian lowlands including semi-arid Ethiopian Rift Valley.
- These data can be compared to the similar type of analyses conducted in other areas.

1. Data

This article includes a schematic diagram representing local farmers' distinctions of the crop fields in terms of the distance from their houses and soil fertility (Fig. 1), table that summarizes the literature review of the previous case studies on determinants of manure application techniques conducted in other parts of sub-Saharan Africa where cattle dung is used for manure (Table 1), table describing a representative farmer's crop sequences and soil fertilisation methods in 2011 and 2012 (Table 2). Table 3 shows descriptive statistics of the independent variables used in the empirical analyses. The logit analysis data include the summary statistics of four binomial logit models and four multinomial logit models, which represent model fit (Table 4), variable coefficients of the two binomial logit models, which are selected as appropriate models in Table 4 (Table 5), and average marginal effects of the three multinomial logit models, which are selected as appropriate models in Table 4 (Table 6).

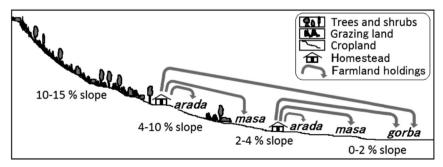


Fig. 1. Positional relationships between homesteads, aradas, masas, and gorbas (drawing by Shiro Mukai).

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