

Data on factors affecting smallholder uptake of adaptation and coping measures to deal with rainfall variability

SND-ID: 2021-268-1.

Associated documentation

Description_of_M2_questionnaire_data.tsv (48.02 KB)

Questionnaire_for_M2.pdf (646.94 KB)

Citation

Nyberg, Y Data on factors affecting smallholder uptake of adaptation and coping measures to deal with rainfall variability [Data set]. Swedish University of Agricultural Sciences. Available at: <https://hdl.handle.net/20.500.12703/3900>

Creator/Principal investigator(s)

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Research principal

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Principal's reference number

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Description

Rainfall variability is becoming more profound in East Africa. Smallholders relying on rainfed agriculture are particularly affected and need to adapt their farming systems accordingly. This study examined the measures small-scale farmers use to adapt to, or cope with rainfall variability, their rated perceived effectiveness. It also explored limitations to uptake of measures and sources of learning measures. Questionnaire-based interviews were held with 80 smallholder farmers, both female and male, living in Kisumu and Trans Nzoia counties in Kenya who had/did not have access to regular advisory services (denoted trained and non-trained farmers). Trained farmers used more and better adaptation measures in more effective ways than non-trained farmers. Female farmers felt more limited by lack of knowledge than male farmers, while money, land and labour limited the smallholder farmers equally. Few measures were used to overcome limitations, but several limitations were covered within the advisory package used for trained farmers, and therefore large differences were seen not only in numbers of measures, but also in effectiveness of use. Thus advisory services and policy interventions can play important roles in future efforts to improve uptake of measures.

Structured questionnaire-based interviews on the use of management measures were held individually with 80 smallholder farmers as a continuation of an earlier study on awareness of the same measures. This quantitative approach (e.g. including counts and scores) enabled the study to be broader, involving a greater number of farmers, and also enhancing the generalization of the results. The study was designed to test for differences between farmers regarding regular or sporadic access to advisory services (trained or non-trained farmers), gender (male or female farmers) and biophysical setting (farming in Trans Nzoia or Kisumu). The study had 10 replicates of each of the eight factorial combinations (e.g. trained female farmer in Kisumu or non-trained male farmer in Trans

Nzoia).

Data contains personal data

Yes

Type of personal data

Names

Language

[English](#)

Unit of analysis

[Individual](#)

Population

Smallscale farmers

Sampling procedure

[Non-probability](#)

There were clear criteria being used for selecting individuals regarding gender, access to agricultural extension and geographical area.

Time period(s) investigated

2010-11-01 - 2011-03-01

Variables

265

Response rate/participation rate

100% / One criterion for answering was that they wanted to be involved in teh study, which meant that all 80 interviews were finalized.

Data format / data structure

[Numeric](#)

[Text](#)

Geographic spread

Geographic location: [Kenya](#)

Geographic description: Kisumu and Trans Nzoia Counties

Responsible department/unit

Department of Crop Production Ecology

Funding

- Funding agency: Swedish International Development Cooperation Agency
- Funding agency's reference number: 220-2009-2073

Research area

[Environment and conservation](#) (CESSDA Topic Classification)

[Plants and animals](#) (CESSDA Topic Classification)

[Agricultural science](#) (Standard för svensk indelning av forskningsämnen 2011)

[Environmental sciences related to agriculture and land-use](#) (Standard för svensk indelning av forskningsämnen 2011)

[Farming](#) (INSPIRE topic categories)

[Climatology / meteorology / atmosphere](#) (INSPIRE topic categories)

Keywords

[Agricultural and aquaculture facilities](#), [Climate adaptation measures](#), [Gender](#), [Extension](#)

Publications

Nyberg, Y., Wetterlind, J., Jonsson, M., & Öborn, I. (2021). Factors affecting smallholder adoption of adaptation and coping measures to deal with rainfall variability. In *International Journal of Agricultural Sustainability* (Vol. 19, pp. 175–198). <https://doi.org/10.1080/14735903.2021.1895574>

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Accessibility level

Access to data through an external actor

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