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## Could water harvesting technologies be made more effective in Sub-Saharan Africa?

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Stone lines have been used to harvest rainfall in Sub-Saharan Africa for the past 30 years but adoption and effective implementation are patchy.

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### What is the situation in Burkina Faso?

- Poorly distributed and/or highly variable rainfall is the main cause of food insecurity.
- Bunds built along the contours of the land (stone lines) are effective for containing rainwater so it soaks into the soil before and after sowing.
- NGOs have promoted this technology for over 30 years but while some farmers manage up to 200% yield increases, others are less successful.

### What does the research show?

- Water is only one asset in a bundle of important requirements.
- Farmers may lack time - men may be engaged in other work such as gold mining, brick making etc, and women in sale of food and handicrafts and domestic tasks.
- They may lack resources such as tools, manure, animals for draught or transport or knowledge and training.
- Women may have particular difficulty in accessing resources and if they do improve their land their husbands may take it from them.

### What are the implications for policy?

When planning strategies to aid agricultural development it is important for NGOs and governments to consider that:

- Institutional and societal cultures are important factors in adoption of technologies such as stone lines.
- Individual farmers and communities have different needs – some communities may offer mutual aid but others will not. This may vary over time.
- Technologies such as stone lines can help but it is important to take a whole systems perspective; they will not solve all problems without other resources being available.
- Inputs of equipment and training are useful but need to be repeated regularly to ensure individuals do not miss out.
- Female farmers may be particularly disadvantaged and could require tailored strategies to assist them.

## Further information:

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