

Rural women and rainwater harvesting and conservation (RWH&C): anecdotal evidence from the Free State and Eastern Cape provinces

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BACKGROUND

There is growing consensus that rural economy is not based only on agriculture, but on a diverse portfolio of livelihood creation activities (Chapman & Tripp, 2004). Livelihood diversification is an important survival strategy for rural households, wherein while agriculture plays an important role, households are looking for and using diverse opportunities to increase and stabilize their household incomes, hence enhancing their livelihoods (Ellis, 1999; Carney, 1998). However, livelihood diversification has both positive and negative impacts on agriculture, the mainstay of most rural households' livelihoods.

One of the major impacts of livelihood diversification is feminization of agriculture, as men frequently pursue migratory labour opportunities. This is where women have to tend to home farms (gardens) and take on a range of other agricultural tasks to ensure food production for household sustenance. This could lead to the empowerment of women and improvements in the family welfare as women are more likely to invest the additional income in children and family (Ellis, 1999).

In most semi-arid to arid areas, access to water for domestic and agricultural use is a common limiting factor. Advances in the development of rainwater harvesting and conservation practices have proven to provide opportunities for improved access and/or availability of water for both domestic and agricultural production. However, the technologies have different consequences for women and men (Arya, et al., 1998). Therefore these consequences need to be addressed more so where the women have become increasingly central in agricultural production as men engage in migratory labour.

AIMS AND OBJECTIVES

- To determine and profile the adoptors of rainwater harvesting techniques.
- Determine the role of women in agriculture in rural South Africa.
- Determine the role of women adoption of rainwater harvesting and conservation practices in rural parts of South Africa.

MATERIALS AND METHODS

Data for the poster collected from selected households from four study sites through the use of semi-structured questionnaire. Interviews generated household information on:

- Demographics (composition)
- Socio-economic characteristics
- RWH&C practices availability and use
- Importance and contribution of agriculture in household sustenance

Questionnaire administered on users (adopters) and non-users (non-adopters) of RWH&C, therefore sampling was both purposive (users and non-users) and random within the two groups of respondents.

RESULTS AND DISCUSSIONS

1. Snapshot of socio-economic characteristics

- Two-thirds of respondents female (66.5% are household heads)
- 82 % of household heads had some formal education, mainly grade 4-12 (76%) – positive effect on technology adoption
- Average household size is four (high variability, 1-15 members)
- Average monthly household income is R1124.90 (ranges from R100 to R8000)

2. Sources of income

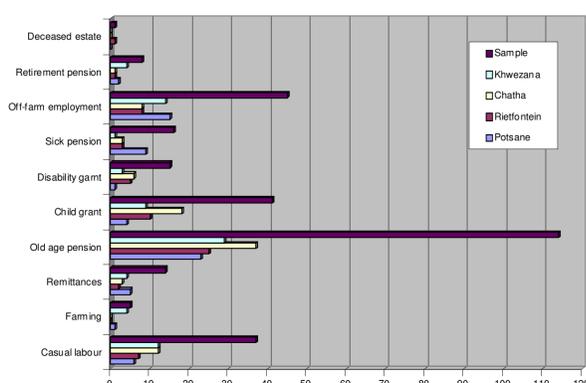


Figure 1: Sources of income for the household sampled, March 2007

3. Sources of domestic and agricultural water

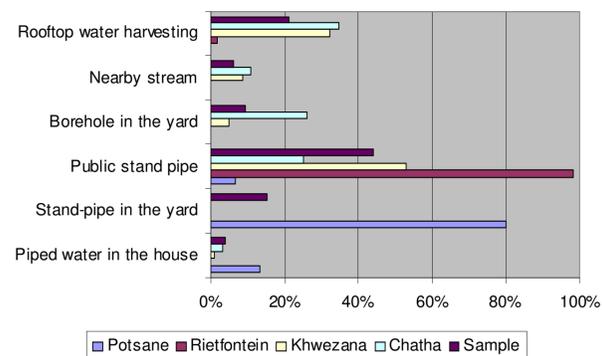


Figure 2: Sources of domestic water, March 2007

4. Use of RWH&C practices

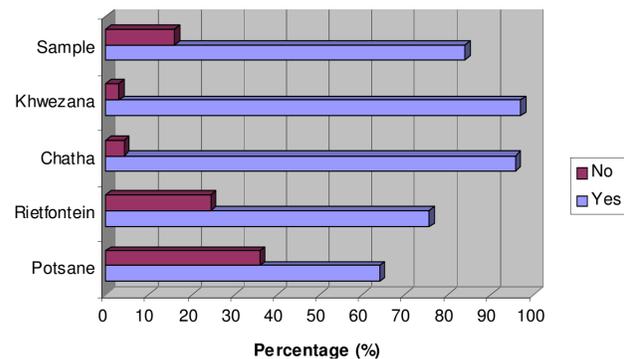


Figure 3: Usage of rainwater harvesting and conservation practices among households in the surveyed villages, March 2007

5. Types of RWH&C practices used

Table 1: The different types of rainwater harvesting and conservation (RWH&C) practices and techniques used in the total sample, March 2007

Types of RWH&C practice/technique	Frequency (n)	Proportion (%)
Rooftop rainwater harvesting	202	76
Collect runoff from the road	27	10
Collect runoff from the upper slope of land	6	2
Infield Rainwater Harvesting	31	12
Total	266	100
(Total number of RWH&C users)	(215)	(124)

6. Purpose of harvesting and conserving water

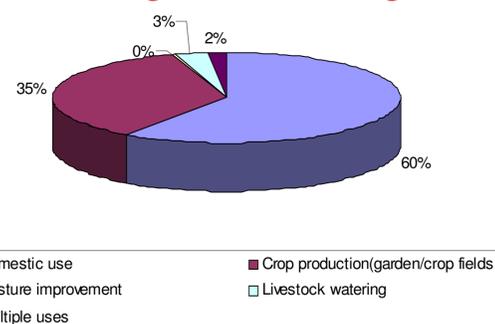


Figure 4: Main purpose for harvesting rainwater in the total sample, March 2007

SUMMARY AND CONCLUSIONS

- 84 % of households use RWH&C practices
- Several RWH&C practices used for domestic and agricultural production
- Household heads were the main participants in the implementation of the practices
- Practices heavily dependent on available household labour
- There is no evidence to suggest that the use of RWH&C practices negatively on other household livelihood creation activities

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