Understanding gender roles and practices in innovation processes: A case study of Banana Xanthomonas Wilt (BXW) disease management in Burundi

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BXW, a threat of banana productivity, thus a threat of livelihood in Burundi

- BXW, a banana bacterial disease cause up to 100% yield loss and affecting people’s livelihood.
- In Burundi, 90% of farmers grow banana (ISABU, 2012)
- Banana is the most important crop (income & Food)
Over the past decades, some actions to control BXW have been promoted by NARS and NGOs at National and regional level.

Some of them were found to be limited in their efficacy with low adoption.

Complete mat removal-CMR, the highly recommended, met resistance by smallholders:
  - Labor intensity and time-consuming
  - Production loss.
SDRS – Single Diseased Stem Removal as promising technology to manage BXW

• In response to the poor adoption of CMR by farmers (due to its labor-intensive nature and banana production loss), Bioversity Scientist developed SDRS as cost-saving practice to manage BXW.

• SDSR is part of a BXW control package that Bioversity International and partners are promoting in several SSA countries....
SDSR core practices: regular monitoring and …

SDSR complementary practices

Cut off infected plant  Kill meristem
Sterilize tools on fire  Remove male bud

Avoiding leaf cutting
Avoiding free roaming of browsing animals

A take away: SDRS is not a ‘one size fits all’ approach, rather an adaptatively rational choice depending on the context.

Use of clean banana seed
SDSR is environmentally sustainable. By not needing to uproot all banana mats, soil integrity is maintained and topsoil erosion reduced.
From technical to social

Despite the SDSR’s proven benefit to smallholders, more research need to be understood:

• Little was know on the socio-economic context of banana production systems in Burundi;
• The role of gender in banana crop management including BXW has, so far, not been an integral part of research and development activities
Gender study:

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Aim of the study

To Better understand:
• Gender dynamics in banana cropping systems,
• Knowledge transfer at household and community level (banana & Diseases)
• How these could influence the scaling up of SDSR to manage BXW
Site & context of the study

- North-east Burundi, within the framework of USAID-funded Program entitled “AMASHIGA”
- Bioversity International was contracted to control of BXW using SDSR approach
- Farmers learning groups (FLGs) have been created in pilot sites as a frame of information sharing regarding BXW management
Qualitative research methods

1. Sources of data
   - FGDs
   - Individual interview (key informants)
   - FLGs meeting reports, for a period of 11 months

2. Informants
   - FLGs members and non-members
   - Extension agent and leaders
   - FLGs members
     - 49 Men
     - 13 Women
     - 2 Men
     - 4 Women

3. Sampling
   - 4 FGDs, 27 men
   - 4 FGDs, 29 Women

Data were analysed using Nvivo 10 software. Content analysis was performed using a combination of deductive and inductive approaches.
Key findings:

Summarized into 4 sections

- Gender dynamics in banana cropping system
- Access to knowledge & information between men and women
- Household knowledge transfer and innovation uptake
- Community knowledge transfer and innovation uptake
Key findings
Key findings:

1. Gender dynamics in banana cropping system

- Cash and food crops are often intercropped in banana-based farming systems. Cash crops are associated with men and food crops associated with women.
- Men and women prefer banana cultivars based on the use that is linked to gender roles:
  - Banana beer is preferred by men, who typically manage income from it in married households.
  - Women prefer cooking varieties because of their roles in household’s food consumption.
Key findings:

- Banana clearly stands out as a crop primarily controlled, managed and appreciated by men.

**Men and women interviewed give various explanations why banana is ‘for men’**

- "Banana is an important crop for men because men are the head of the family, nobody can touch the banana without his agreement." Male, Buhorana
- "The banana is for the benefit of men because it brings money regularly and the use of the money that results from it becomes the decision of the man without even consulting his wife." Male, Mirango
- "The income from the banana is destined for the man because, as women we do not have the right to know the sum obtained from the banana." Female, Mirango
- "Banana is very important for men because it is the main source of money and men are also the source of money for the family." Male, Burenza
- "This is culture. Since my birth there are crops that are for men and others that are for women." Male, Musama
- "Banana is of great importance for man because it gives him a high income but also beer [To drink]." Female, Mirango
- "The banana is for the man; This because he is the owner of the land even if he sells these bananas he hides the money from us." Female, Mirango
- "He owns the land, he is the provider." Male, Mirango

Gives him money

It’s tradition

It gives him beer

He is the head of HH and the provider
Key findings:

- While some men considered that the use of money resulting from banana becomes the decision of man without consulting his wife, others found that “it is wise to inform his wife about the banana sales to motivate her to continue working in the banana plantation” said a man in FGD.
Key findings:

2. Access to knowledge & information between men and women

- Banana and disease management tasks are often carried out by men; thus men are generally targeted as recipients for trainings and information.
- Women attend meetings/trainings when their husbands are unable or refuse to attend.
- Men prefer to attend meetings when they realize direct economic benefits e.g. per diems
- women’s mobility when compared to men, is limited because of their roles and responsibilities that are associated with household and reproductive tasks
3. Household knowledge transfer and innovation uptake

- Within FLG members applying SDSR to manage BXW, a limited intra-household sharing of information has been observed.
- Even when information is shared, men claimed that SDRS practices are not necessary implemented by their wives.
- However, women’s activities on annual crops associated with banana, are seen as opportunities to use SDRS practices to control BXW.
- Women have intention to work on banana despite the gender norms. “It is time to break with culture, women can do the work on banana” a woman said in FGD.

Key findings:
Key findings:

4. Community knowledge transfer and innovation uptake

• Information sharing from FLG members to non-members in the community serves as an important way to disseminate SDRS practices.

• However, in some circumstances non-members do not heed advice of members.

• FLG members are not recognized by community members as being knowledgeable of SDRS.
Conclusion

- Gender roles clearly have implications for managing BXW and scaling methods to control the disease.
- Research to investigate gender in systems is essential to ensure that approaches do not cause undue harm that undermines women’s empowerment and smallholder livelihoods.
- A “one size fits all” approach towards the introduction and scaling of innovations will likely deepen gender inequality in gender unequal contexts.
- Access to agricultural knowledge is gendered. Limitations to access the source of information is closely linked to gender specific roles in agriculture.
Important follow up question would be how innovations, e.g. SDSR, might be introduced using gender-responsive approaches?
Thank you
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