

Gender Mainstreaming for Sustainable Adoption of Integrated Pest Management (IPM) for suppressing Fruit Flies in Mango Production



**African
Fruit
Fly
Programme**
(Programme Africain de la Mouche de Fruit)



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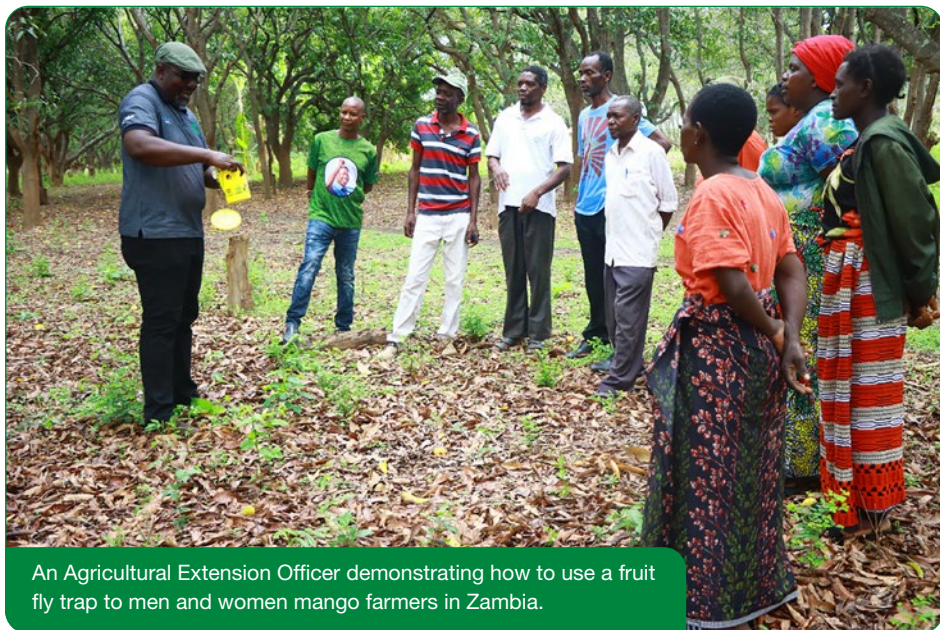


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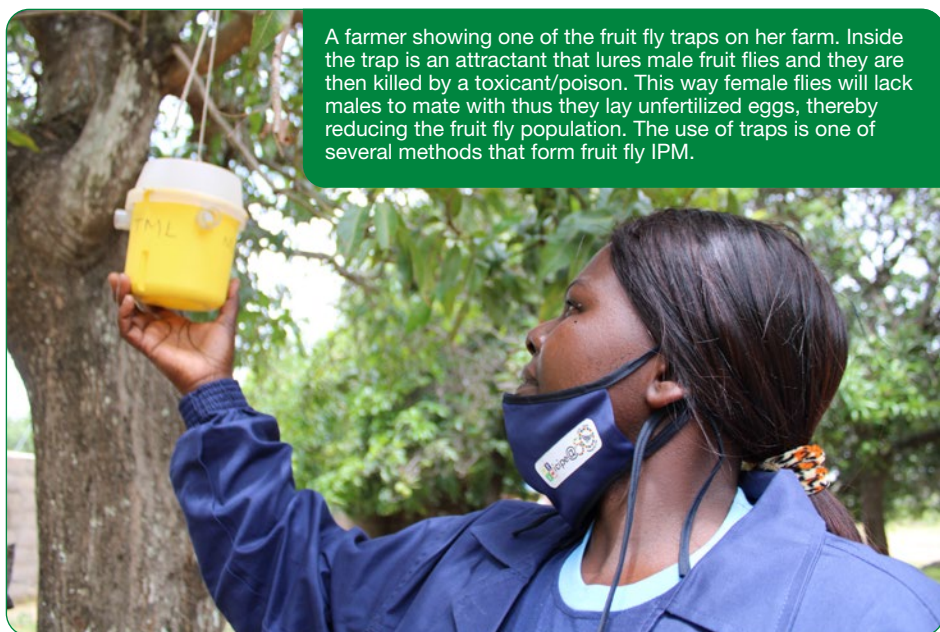
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An Agricultural Extension Officer demonstrating how to use a fruit fly trap to men and women mango farmers in Zambia.



A farmer showing one of the fruit fly traps on her farm. Inside the trap is an attractant that lures male fruit flies and they are then killed by a toxicant/poison. This way female flies will lack males to mate with thus they lay unfertilized eggs, thereby reducing the fruit fly population. The use of traps is one of several methods that form fruit fly IPM.

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1.0 Introduction

Gender equality is a prerequisite for and driver of sustainable development and a viable future. To achieve gender equality, gender mainstreaming at all stages of a project including formulation, and implementation is becoming louder by the day. Project outcomes must promote gender equality and women empowerment to ensure the success of projects and their sustainability at the end of the project life cycle. Men and women have different needs. Thus, gender mainstreaming seeks to account for these differences to narrow gender gaps and increase equality.

Hidden inequalities are often exposed before project inception and corrective measures that enhance the well-being of both men and women are taken early. Often, projects are implemented without considering the appropriateness of interventions to final users of technologies. Gender inclusivity and empowerment integrate the needs, preferences, concerns, and challenges of both men and women and place both at the table for decision-making.

The implementation of Integrated Pest Management (IPM) of fruit flies in the mango agrosystem seeks to ensure that both women and men have access to information, resources, and opportunities and benefit from the application of IPM technologies. The IPM technologies are user-friendly, reduce women's workload, and are safe for the environment and the consumers of the mangoes. Engraved in the activities of IPM are aspects that reduce drudgery, improve autonomy to group membership and incomes, breaking socially constructed roles and responsibilities often assigned knowingly and unknowingly to men and women.

Training activities must be tailored towards inclusivity and ensure that knowledge and technologies are disseminated to all. When capacities and potential contributions of both men and women are pooled, the multiplier effect of such inclusive action ensures the sustainability of projects beyond project closure. Thus, the human development perspective must be jointly embraced by both men and women to build sustainable partnerships, especially with various stakeholders concerned with agricultural development and the empowerment of men and women at all social and economic levels.

2.0 What is gender?

- Gender refers to a set of socially constructed roles, behaviours, responsibilities, and relationships that a society considers appropriate for men and women.
- Gender is different from “sex”. Sex defines being male or female based on biological and physiological characteristics.
- Gender roles are not rigid, they change with time and may not be the same in different societies.
- Gender influences people’s experience of and access to agricultural resources and productivity e.g at various levels of the mango value chain.
- Gender issues are becoming more important in everyday life because failure to address its various concerns results in decreased productivity.
- Women are major players in various value chains in agriculture but face numerous challenges such as access to training, finances, inputs, land, and various other resources.
- Women are mostly overburdened with reproductive (childbearing, taking care of family, domestic chores) and productive (various tasks in farming and income generating activities) roles.
- Selling fruits by the roadside or at markets is mostly done by women (Plate 1).



Plate 1: A woman selling mango and vegetables at a market by the roadside in Malawi. This is considered a role to be played by women, in most communities.

Did you know?

Agricultural productivity can go up by 20% if gender issues are decisively addressed!

2.1 What is gender mainstreaming when applied to the implementation of fruit fly Integrated Pest Management (IPM) in mango production?

- This is the process of integrating men and women in the production, marketing, and processing of mango fruits and their products.
- It is a deliberate move for considering men's and women's concerns and experiences for example in development interventions such as donor/government-funded projects or any other so that both can be recognized and benefit equally.
- Gender mainstreaming seeks to ensure that interventions are sensitive and no one is disadvantaged.
- Both men and women can use IPM products and interventions, sell mangoes and engage in the processing of mangoes.

2.2 Gender mainstreaming in project implementation

- All activities in implementing Integrated Pest Management (IPM) in mango production must use gender-sensitive language or gender-neutral language that avoids bias towards men or women.
- For example, when addressing the one chairing a meeting during farmer field days, Trainer of Trainers (ToTs), or any other gathering, it is advised to refer to the person as the chairperson rather than the chairman or chair lady.
- Data during the implementation of the project must be segregated e.g attendance at meetings must be recorded for women and men separately so that if there is a need for any decisions to be made, they will be tailored towards the right people.
- At all levels of implementing project activities, effort must be channelled towards ensuring that women and men have equal access to the utilization of resources and services.
- The needs of women and men must be identified separately, taking into account prevailing circumstances.
- Activities must be free from barriers e.g are training or meetings conducted at a time when both men and women are free? (Plate 2).
- Are women with young children accommodated in meetings and training? this is important and must be taken into consideration.
- Both men and women must be involved in decision-making. Participatory monitoring and evaluation groups must ensure that the voice of men and women is equally heard. No single gender must dominate.
- Gender must be incorporated into all activities at the planning stage. When different circumstances of men and women are considered early, this enhances the success and effectiveness of planned activities or programs.



Plate 2: Both men and women attending a meeting late in the afternoon after the women are done with household chores.

3.0 The choice of meeting times must not disadvantage anyone

- Training meetings conducted by officers from government research or agricultural extension staff must be conducted at agreed times that favour both men and women.
- Early in the morning is mostly not ideal as women will still be conducting household and domestic chores.
- Women's caring responsibilities must always be accommodated.

3.1 Breastfeeding mothers must be accommodated

- Women must be allowed to bring their house helps to training venues so that they receive assistance with taking care of the child or children.
- Some women do not have house help and must also be accommodated to bring their children to training venues (**Plate 3**).
- Healthy breaks must be incorporated into the training program so that women can breastfeed and attend to their children.



Plate 3: An agricultural extension officer (Zimbabwe) addressing mothers who had brought children to a training session on managing fruit flies in mango.

4.0 Benefits of gender mainstreaming in mango production, processing and marketing

- Merely involving women in training does not amount to empowering them.
- Empowerment is achieved when what is taught, is put into action and results are seen from the action (Figure 1).

Did you know?

Someone once said “I do not wish them [women] to have power over men; but over themselves.”

Mary Wollstonecraft, A Vindication of the Rights of Woman



Reach

Include women in training programs on fruit fly IPM, mango drying and gender.



Benefit

Consistent implementation of fruit fly IPM must result in more yield, more income, and more fruit to eat and sell.



Empowerment

In the IPM groups, women must be heard, make choices and implemnt choices, jointly with men, decide on how to use income from mango sales for the good of the family, etc.

Figure 1: The process of empowering women in the mango value chain through the implementation of an environmentally friendly approach to controlling and managing fruit flies.



Plate 4: Women trained in fruit fly IPM, display products made from mangoes harvested from their orchards

4.1 Examples of women empowerment through the implementation of fruit fly IPM in Malawi, Zambia, and Zimbabwe

- Women have been trained in fruit fly IPM (Plate 5) and they are members of participatory monitoring and evaluation groups that have a constitution and a register. They are active members of the groups and use these groups to access information from Agricultural Extension Officers, Scientists, and government agencies.
- Some women have constituted groups that pool resources together and they can lend small amounts of money to fellow farmers in the community at a small interest rate.
- Some women reported that they used the proceeds from mango sales to pay school fees for their children.
- Some, jointly with their husbands enhanced the mango proceeds and bought cows, goats, and pigs. These are vital as drought power, providing milk and meat for the family.
- A group in Malawi opened a bank account for the women, thus they have more control over their finances.



Plate 5: Women taking a keen interest in the natural enemies (parasitoids) of fruit flies (Plate 6 for a closer look). The natural enemies are often referred to as “farmers' friends” because they do not harm people, crops, or animals but are specific to fruit fly eggs and maggots. They have been released in Zambia, Malawi, Mozambique, and Zimbabwe for the benefit of millions of mango farmers.



Plate 6: A fruit fly parasitoid (natural enemy) searching for fruit fly maggots on mango fruit.

4.2 Addressing gender issues empowers women

- Women empowerment is the process of promoting the ability of women to see themselves as worthy, and have the power to make valid choices for themselves, their families, and their communities without feeling inferior.
- Women empowerment is not a call to have women dominate men. Women must have power over themselves not over men!
- Empowering women is important to the well-being and development of families communities, and businesses.
- Women must have access to information that allows them to be members of essential groups. For example, participatory monitoring and evaluation groups formed to learn Integrated Pest Management (IPM) of fruit flies must make deliberate efforts to recruit women.
- In most communities, women are disempowered. They have no say in family income, have no access to group membership, and seldom make decisions for their families and communities.
- Both men and women must work together to address gender issues. Traditional leaders must understand fruit fly IPM so that they can advocate for women's involvement (**Plate 7**).

- When the government and traditional leaders are involved in development initiatives, communities find it easier to participate in the implementation of activities.
- Traditional leaders are integral in driving change in social and gender norms.
- The gender perspective was integrated into fruit fly IPM activities from the inception of the project operational in Malawi, Mozambique, Zambia, and Zimbabwe.



Plate 7: Government, Scientists, and traditional leaders were present at the ceremony to mark the first release of parasitoids (natural enemies) for the control of fruit flies in Zimbabwe (From left to right: Ms. Louisa Makumbe-Principal Quarantine Officer, Plant Quarantine Service Institute-Zimbabwe, Dr. Shepard Ndlela-Scientist-International Centre of Insect Physiology and Ecology, the late Dr. Gamedzwa Mguni who was the Director of Research Services Department-Zimbabwe now , Agricultural Research, Innovation, and Development Directorate (ARIDD); Chief Nyachoto Philmon Chimunhu, (Chief Mutoko) and Engineer Tinaishe Mutazu representing Dr. John Bhasera the permanent secretary of the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development. –Zimbabwe.

5.0 Gender Empowerment Assessment

Did you know?

Gender mainstreaming is “not just about changing the sizes of the slices of cake given to women but requires remixing the ingredients for the cake, using a new cake recipe or indeed making something entirely different from a cake”. Jeff Hearn, *Men and Gender Equality: Resistance, Responsibilities and Reaching Out*.

A study on empowerment conducted in Zambia and Malawi showed that implementation of fruit fly IPM activities, mango drying, and market-related actions must focus on:

- Reducing work balance
- Increasing autonomy in income
- Promoting group membership
- Cultivating respect among household members

It was noted that care must be taken to ensure that proposed technologies (fruit fly IPM and mango drying) don't add to the workload of women, particularly if the work required is unpaid or not directly contributing to increasing women's income or welfare.

5.1 Major questions to be answered regarding the implementation of project activities

5.2 As regards work balance

1. How will the fruit fly IPM package influence women's workload?
 - Once traps are installed on the farm, they do not require any other labour. they are only changed after 4-6 weeks or when they cease to be effective.
 - Parasitoids (natural enemies of fruit flies), once released into the farm, are self-perpetuating and will not require human effort to disperse. They disperse far and wide, helping millions of mango growers.
 - Protein baits are easy to apply and may not need carrying heavy knapsack sprayers as compared to the application of synthetic pesticides.
2. How will mango drying influence (women's) workload?
 - Mango drying uses easy-to-make, and clean nets/baskets.
 - Slicing of the mangoes can be done by the whole family during family time.
 - Men can join in the mango drying without feeling degraded as the work is not particular to any gender.
3. Are there some strategies to reduce or minimize the additional workload (if any) for women?
 - There is no extra load. IPM and mango drying cut down the workload.
4. How can we encourage men to take more care of children to enable women to engage in other activities?
 - When the message is lovingly taken to men, without making them feel pressured, they are likely to reciprocate.
 - Gender must be introduced to men and women, not women only, otherwise men will treat it as activism aimed at turning their women against them and positive social and cultural norms.

5.3 As regards membership in influential groups

1. How can we increase women's membership in mango-related groups?
2. Which kind of groups can positively influence (women's) mango drying?
3. What are or should be the purpose of these groups (training, market linkage, access to credit, etc.)?

5.4 Important aspects when addressing gender issues

5.4.1 In a family, who has access to land? Who controls the land? Who makes decisions regarding the land?



Plate 8: A woman discussing with a Research Officer on a farm used for growing food and cash crops as well as mango trees.

- When women know that they have secure access to the family land, this boosts their productivity and they become active income earners.
- Access to land is a development concern that families must address regardless of cultural and traditional perceptions.
- women who have secure access to land feel they have more status and respect, thus increasing their decision-making in the family and community.
- Agricultural production and income generation have been shown to increase when women jointly with men or individually (for example in female-headed households) can decide what to be planted, when, and how on their farms.

5.4.2 Who has access to mango orchards?



Plate 9: Men and women harvesting mangoes together

- Do men harvest the mangoes alone?
- Do they do it jointly or with the knowledge and approval of the other?
- When women harvest the mangoes in the absence of the men, is it still acceptable?



Plate10: A man and a woman in a mango orchard, conversing on their mango yield

5.4.3 Who has access to the information? Who makes information available and to whom?



Plate 11: Men and women attending a training/discussion session on Fruit fly IPM.



Plate 12: A woman shares her experiences using fruit fly traps. Behind her are banners promoting the use of fruit IPM technologies.

- Though access to information is a fundamental right, many women face challenges and barriers that prevent their access to information. For example, when training sessions are conducted during times when women are busy with household chores, they may not be able to attend the sessions.
- Some are denied permission to attend such training sessions by their spouses.
- When women have access to crucial information, they are better placed to make informed decisions that affect them as individuals, families, or communities.
- Due to cultural differences, men and women are accorded different priorities when it comes to access to information.
- When men attend training sessions, do they share the information with their spouses?

5.4.4 Who has access to IPM technologies?



Plate 13: Men and women after receiving traps and lures for use in their farms as well as natural enemies to release in their farms pose for a group photo.

- Access to agricultural technologies is gendered right from development, dissemination, access, and even adoption.
- During the development and dissemination of technologies, women's concerns must be considered. this ensures a higher adoption rate.
- Ensuring access to agricultural technologies by women has a very strong multiplier effect in ensuring food and nutritional security.
- Technologies must reduce labour and be easy to implement to enable women to participate without any physical impediments.

5.4.5 Who has access to mango processing equipment?



Plate 14: Women showing processed mango products. After implementing fruit fly IPM technologies and harvesting clean mangoes, farmers can process mango into various products.

- Agricultural technologies that add value to agricultural commodities such as mango enable women to boost their incomes
- Mango drying technology for example ensures that women have adequate nutritious food for their families even during the mango offseason.
- Be aware! When the mango drying technology is enhanced, to the use of drying greenhouses, will women still have access to the driers or will men take over (higher income ventures)

5.4.6 Who has access to money/income from sales? Who controls the money?

- Access to family income ensures greater control of household resources and paves way for economic empowerment.
- Personal bank accounts or shared bank accounts between spouses provide adequate control over earned and saved income.
- There are reports of men who take away the income raised from sales by women. This leaves the women disempowered and helpless as they are unable to plan for their families.
- Pooled autonomy to incomes has been seen to work where women come together, pool financial resources, and embark on income-generating activities or lend the money to fellow villagers at an interest.



Plate 15: Women selling mango fruits at a roadside market.

6.0 Take-home message

- Gender equality drives sustainable development and can only be achieved if gender mainstreaming is included at all stages of project development and implementation.
- Gender inclusivity and empowerment integrate the needs, preferences, concerns, and challenges of both men and women and place both at the table for decision-making.
- The fruit fly IPM technologies are user-friendly, reduce women's workload, and are safe for the environment and the consumers of the mangoes.
- When capacities and potential contributions of both men and women are pooled, the multiplier effect of such inclusive action ensures the sustainability of projects beyond project closure.
- Thus, the human development perspective must be jointly embraced by both men and women to build sustainable partnerships, especially with various stakeholders concerned with agricultural development and the empowerment of men and women at all social and economic levels.



Plate 16: Women and youths harvesting mango and preparing for sale.





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