

Empowering Women in Integrated Crop-Livestock Farming through Innovation Platforms: Experience in Semi-arid Zimbabwe

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Key messages

i. Innovation platforms empower women in agriculture significantly

In Zimbabwe, women play a significant role as decision makers regarding commodities such as goats and groundnuts. Innovation platforms that promote these commodities help women amplify their voice in exploring opportunities, find solutions to challenges that they face and ultimately improve their competence, confidence, and standing in their family and community.

ii. Market development can reduce gender inequalities

When women have better access to markets, inputs, machinery and knowledge, their position within the household is reinforced. Their contribution to total incomes increases, as does their decision-making power and confidence.

iii. Sustainable development comes with greater gender parity in farm and household management

Detailed analysis of women and men's situation at farm and household level and the demonstration of its impact on families' food security, education and health is necessary to support positive changes. Gender-sensitive innovation platforms support sustainable rural development as they not only build more productive and resilient farms, more profitable and inclusive value chains, but also stronger families and communities.

The context for women farmers in semi-arid Zimbabwe

In Zimbabwe, more than 80% of the population depends on agriculture, and women constitute more than 60% of the agricultural labor force. Over 70% of the rural population lives below the poverty line, with a great share of households headed by children or widowed/divorced women (ZimStat, 2014). In the semi-arid areas, the effects of economic crisis, poor health systems and frequent droughts negatively impact women more than men, because while men are engaged in work off the farms, it is women who manage the farms.

Women farm under increasingly difficult conditions: resource degradation, climate change, and limited access to productive resources. Their ability to secure food is crippled by severe land degradation due to continuous mono-cropping, limited soil amendments and frequent droughts and dry spells. Support services and markets that could help women are often not accessible at all, or not tailored to address women-specific needs. Within their families, women face acute labor shortages; men and youth of productive age emigrate and leave women, children and the vulnerable to be responsible for agriculture.

Photo: S. Homann-Kee Tui, ICRISAT



Photo 1. Women farmers negotiating prices for their goats: for greater women empowerment in agriculture, policies should focus more on commodities that matter for women.

For a long time, the important contribution that women make to agriculture was not reflected in the investments in agriculture. Policy and development support have mainly focused on promoting maize as a staple crop to ensure food security, and cattle as a major source of wealth. Though women have traditionally had a greater say in matters related to certain crops (e.g. groundnut) and livestock (e.g. goats), and a clear demand for them has been identified, these crops and livestock have been treated as marginal or orphan crops/resources. As a result, these crops and livestock perform far below potential. Fortunately, this situation is changing now, with the government making deliberate efforts for women to access market opportunities (MWAGCD, 2013).

Efforts are on in Zimbabwe today for enabling women to raise their income – and therefore food security, nutrition, and health – more effectively. Goats and groundnuts have been identified as value chains that would enhance income and profitability faster as women are already strong in these areas.

This brief proposes to donors, government and research partners that engaging women through innovation platforms (IPs) in the inclusive processes of technology and market development can accelerate transitions towards greater sustainability, food security, nutrition, education and health.

Interventions engaging women farmers through innovation platforms

ICRISAT, Matopos Research Institute and their partners have worked on improving conditions for women farmers in semi-arid Zimbabwe through a series of projects from 2012 to 2017 in Nkayi (450–600 mm average annual rainfall, crop-livestock farming) and Gwanda districts (<450 mm average annual rainfall, livestock dominated) (Figure 1).

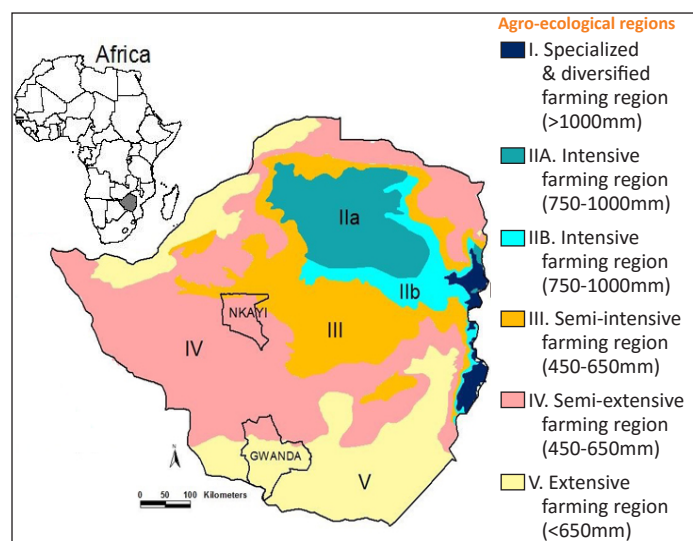


Figure 1. Nkayi and Gwanda districts in semi-arid Zimbabwe.

They aim at promoting more diversified and better integrated crop-livestock farming systems through IPs; specifically focusing on better access of women to higher value crops and livestock. Eventually, this will help women raise their households' income, their families' nutrition and their own self-esteem.

1. Understanding local decision processes in a dynamic context

While women make most decisions over groundnuts, women and men share decisions over access to inputs, sale and the use of the income generated from groundnuts (Figure 2). Also, regarding goats, women have an equally strong say as men – when where goats are sold and how the income from those sales is used.

“The reality is that as much as men are in charge, they are often not present at the homestead. We as women do the work on feeding, taking the cattle and goats to diptanks, collecting water, herding – and making the day-to-day decisions ourselves.”

– Mrs Nare, Gwanda District

Both women and men feel that there has been a change in decision making in recent years (Figure 3). Women have been gaining decision-making power in regard to goats, mostly as the result of a natural process that requires them to take charge while their husbands are working off the farms. They also acknowledged a change in society, where women are becoming empowered, and taking leadership positions because their competency benefited from experience and technical training. Both men and women perceive this change as an advantage, as sharing of their mutual responsibilities to their families, and a positive contribution to their family's welfare. They see that women continue to grow in their ability to make these decisions as a result of training programs and market exposure.

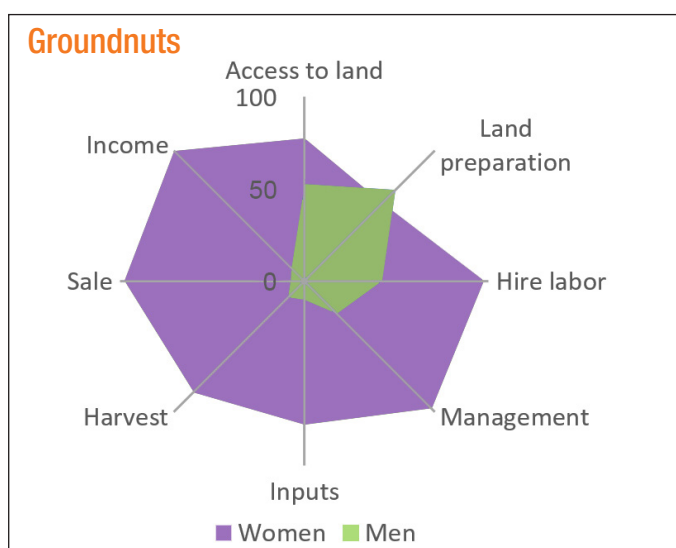
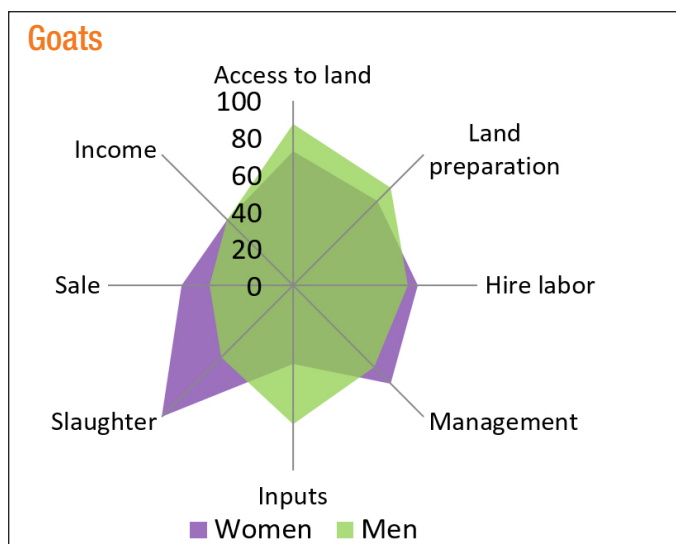


Figure 2. Women and men's perceptions of decision-making power for farm operations.

Generally, one of the major fears of promoting market development is an increase in inequality, with marginal farmers being unable to benefit from the new opportunities. This was not the case in Zimbabwe.

Women expressed a very strong need to access inputs at the local marketplaces, especially seed and animal health inputs, together with the right information about production technologies and marketing requirements. Since women are not always able to leave their homes and farms due to their family and farm-related responsibilities, they are often at a disadvantage,



Figure 3. Changes in decisions over goats by women and men in Gwanda, Southern Zimbabwe.

as inputs are usually available at urban markets. Considering labor shortages, engaging women more in agriculture bears a serious trade-off with their time on family welfare. Solutions improving rural access to input markets and finding efficient ways to intensify production would go a long way to help women farmers.

Improving women's participation in groundnut markets (e.g. through mechanized shelling, increasing the area planted with groundnuts, higher groundnut sales) were attributed to increased women's influence over decision making in the household. Similarly, women who lived near recently established formal goat markets reported stronger influence on goat management and marketing decisions as compared to those living far from the markets (Figure 4). Better access to markets and market processes (assembly, weighing observation, price setting etc.) and technical training can help women make better decisions and greater gains from their goats than before.

If women already have control over certain commodities, then through interventions that help them participate in those markets, they can generate more income. This increases women's contributions for household expenses and strengthens their position in the households.

"I improved my situation through the knowledge I gained on what type of goats to produce for the market. The advantage of the goat sale pen is that there are now holding facilities to keep the goats. Before the sale pens, goats were sold under a tree and many were stolen or lost. I have now more control over my goats and the price at which I sell my goats at the sale pen."

– Mrs Ndlovu, Gwanda District

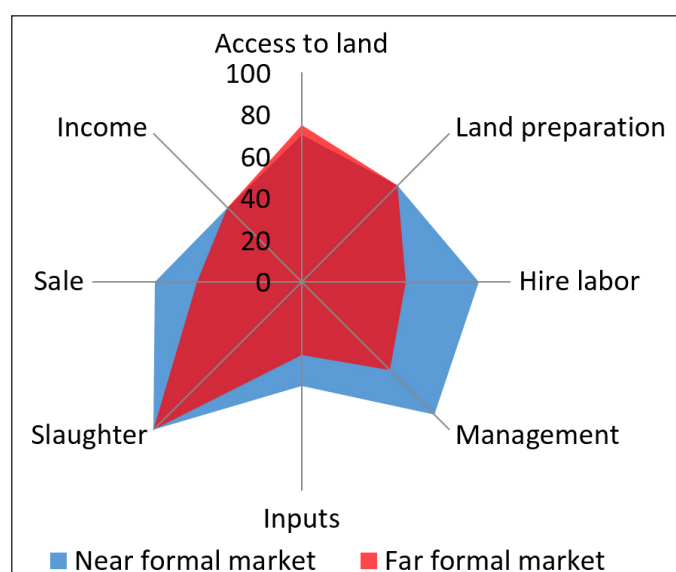


Figure 4. Women's perceptions of decision making over goats in areas near and far from formal markets, in Gwanda, Southern Zimbabwe.

2. Promoting agricultural commodities where women make decisions

Innovation platforms engage women and men farmers of different resource and resilience status to envision their desired development scenarios. Where women were given a strong say, goats and groundnuts scored the highest in terms of their potential contribution to food security, profitability, large-scale adoption and risk reduction. Open discussion is important to identify commodities that, given the current constraints, would not be recognized or be attractive for women to invest in.

- **Goats for income generation in Gwanda District:** Women highlighted that goats provided livelihoods even for farmers with very little assets, were a source of reliable income when crops failed, and needed less labor than any other farm enterprise. Women trade goats at the marketplace and get the opportunity to network with other farmers, buyers and extension staff whom they want to cooperate with.
- **Groundnut, a multipurpose crop in Nkayi District:** Women expressed preference for groundnuts as it brings food and nutrition for the family, haulms are good feed for livestock and this nitrogen-fixing legume improves soil health at no extra cost. If market conditions were improved, surplus represents a source of cash income.

IPs that involve women to decide on priority commodities for their tangible benefits are more likely to address women's needs. They give legitimacy to programs that support inclusive value chains.

3. Building and enhancing productive assets to which women have access

IPs need to be informed by analyses that help to better understand women and men farmers' situations and their decision making around specific commodities in order to support positive changes within the farming systems. In places where IPs built upon what women already own and have control over (e.g. groundnuts and goats), they increased the tangible benefits, which, in turn, motivated women to invest more labor, land and cash in these commodities, leading to a sustainable growth of productive assets.

- **Using goats more productively in Gwanda District:** Dry season feed is the bottleneck for livestock production. With the introduction of fodder crops for adequate supply of goat feed, combined with veterinary services that reduce goat mortalities, farmers can build their goat flocks and enhance goat productivity. They can generate higher incomes from selling goats as well as fodder seed. Some farmers reinvest some of the proceeds from goat sales into buying agricultural inputs, thereby improving the overall productivity of their farms.



Photo 2. Fodder innovation for women - Women farmers growing *Mucuna* to nourish their goats and farm soil.

"Mucuna seed is an important source of income that goes towards (among other things) purchase of goats. Thus we increase our goat flocks. Today more of our income comes from selling goats."

– Mrs Ncube, Gwanda District

- **Growing more groundnuts in Nkayi District:** With interventions that improve access to seed and grain markets, women expressed that they would at least double the area under groundnuts and increase yields. Expanding legume production at the expense of cereals would increase the ratio of land under legumes per cereals, for increasing productivity and breaking pest cycles. Men farmers would support women in groundnut production, mechanized processing and sales. Especially, poor farmers who use the income from selling groundnuts to buy goats or farm implements build their own asset base.



Photo 3. Women farmers are keen to experiment new crop varieties: a farmer participatory groundnut variety evaluation, to inform crop improvement program in Zimbabwe.

"My husband did not allow me to grow groundnuts on more land, as there was no market. Since we noticed that there is a market for groundnuts, we've started expanding the land for groundnuts."

– Mrs Moyo, Nkayi District

Interventions that instill these positive feedback mechanisms within farming systems through goats or groundnuts, are useful for women to use their resources more efficiently, and improve the health of their families.

They support transition to higher levels of productivity and wellbeing.

4. Strengthening women's participation in value chains through innovation platforms

Participating in IPs can help women to find solutions to the challenges they face when engaging in value chains that would work for them, e.g. goats or groundnuts.

- **Access to markets:** While it is clear that there is great potential for Zimbabwean women farmers to benefit more from goat and groundnut production, the greatest challenge is to establish effective market linkages. In Gwanda, women have seen that improved animal quality fetches them higher prices at better organized goat markets. Women changed from selling goats at the farm gate, to goat auctions; this increased prices, made pricing more transparent and allowed sales throughout the year. Through technical trainings, women in Nkayi learned that they can gain more from groundnuts if (a) they produce specific varieties; and (b) they shell the nuts.
- **Access to farm inputs and implements:** Solutions that improve rural access to certified seed, fertilizer, animal feed and health inputs are critical, especially as women are not always able to leave their homes and farms due to their family- and farm-related responsibilities. IPs have motivated women to multiply improved groundnut seed among themselves as a group; they then shell, control the quality and sell the grain in bulk. To enable women to directly use the cash from goat sales to reinvest in technologies, IPs arranged for input supplier to display/sell their products at goat auctions. This led to higher uptake of technologies.
- **Technical knowledge and capacity development:** Women attach great importance to information about relevant new technologies. In Nkayi, women wanted access to and information about managing mechanized groundnut shellers and crop residue choppers as they reduced labor. In Gwanda, women requested training on meat quality improvement and grading. In short, women who have technical knowledge fare better in dealing with buyers and input dealers; their confidence as well as incomes are enhanced.

"In the end, it is all about my self-esteem. When I go to the sale pen, I really want to be seen as a powerful woman."

– Mrs Magwala, Gwanda District

How innovation platforms empower women

For women in Nkayi and Gwanda, IPs have unlocked barriers that held women farmers back. They are now more aware of the real value of goat and groundnut

production and associated value chains, including the high potential for local value addition. Market-oriented development through IPs helps women gain economic and social power, which can have potentially far-reaching effects. These are critical principles towards that end:

Enabling women farmers to make their own choices

- **Common vision:** Women farmers in Nkayi and Gwanda now have a common vision, that 'their' crops have the potential for more profitable farming. We have seen that by participating in the IP process (stakeholder discussions, technical trainings, attendance of markets) women have enhanced their confidence, self-esteem and ability to represent their interests in many ways. They are more visible as key actors and participate actively in business-oriented activities.
- **Champion crops/livestock:** Through IPs, women can identify crops/livestock that can make a difference to them. Mechanized processing of groundnuts and livestock feed are key technologies to reduce labor burden for women. Local seed multiplication and organic fertilizers are ways to reduce their dependence on external inputs. IPs help women generate gender-equitable potential impacts.
- **Capacity development:** Wherever IPs have facilitated exchange of ideas and knowledge transfer among women, women have come up with innovations themselves. The open dialog brings out deeper gender issues, practical solutions and priorities. Prioritizing value chains suitable for women and creating mechanisms that support them help women to increase their capacity to deal with challenges and identify new opportunities.
- **Collective action and self-organization:** Through IPs, women and men farmers decide to work together on commercializing their produce. Women managing production, post harvesting, quality control and accessing markets improve their capacity to organize themselves around these commodities. Farmer producer clubs operate more effectively and farmers build their own position in price negotiations. As farmers are better organized for a market purpose, it becomes more attractive for buyers to attend to them.

Building structures for women farmers to make use of opportunities

- **Future-oriented investments:** IPs, if open to programs and partners, can build a long-term pathway for investments. This brings continuity and lessons from longer engagements and changes. Addressing the market opportunities for commodities like goats and groundnuts, the bottlenecks that limit market participation, and related agri-businesses, are important entry points for making agriculture more profitable, maintaining family linkages

and encouraging the youth to engage in related enterprises.

- **Service delivery:** Through IPs, women can drive support services to broaden their spectrum of technical expertise and associated market issues. In Nkayi, women farmers claim support from research to provide groundnut varieties for which there is a market. In Gwanda, women highlight the need for better organized and more transparent goat sales.
- **Infrastructure development:** By involving policy makers, IPs help to raise attention and facilitate long-term investments in market infrastructure. Infrastructure development supports market organization, knowledge and skills in marketing, accessing the required inputs and assembling quality produce, including transport to markets. Farmers gain confidence and competence in participating in value chains.
- **Partnerships:** Cross-sectional communication among stakeholders builds synergies in access to inputs, markets and revenue. Partnerships encourage co-learning, systematically revisiting challenges and opportunities as particular value chains evolve.

Development at scale: messages on implications for research and development

- **Markets as drivers for economic and social change:** IPs that enable access to functional markets, accelerate uptake of superior grain or forage germplasm, and technologies for local value addition, bringing greater profits for farmers. In this manner, women farmers and youths who traditionally manage these crops have greater benefits from new technologies and markets.
- **Promoting gender-friendly product lines:** Crop varieties or types of livestock, where women have knowledge and control and higher market opportunities, reduce vulnerability to climate shocks, while allowing farmers to get surplus to market. New lines must be promoted that do well under resource-constrained conditions (e.g. heat- and drought-resistant food feed cereals and legumes) along with labor-saving soil and water conservation and post-harvest technologies.
- **Gender-sensitive scaling frameworks:** IP processes supporting sustainable development pathways are inherently gender sensitive, strengthening women as decision makers within their families. They support women's voices in planning processes, networks and policy decisions. Emphasis must be on CG scientists, NARES, NGOs, the private sector and other stakeholders to complement each other more effectively, to deliver practical evidence-based policy advice, for faster upscaling impacts on women and youth in the smallholder farming sector.

Conclusions and the way forward

We illustrate how empowering women through IPs brought about inclusive market-oriented development, reducing risks and increasing resilience to shocks in most vulnerable areas of Southern Africa. In semi-arid Zimbabwe, farming communities, local government, development and research are beginning to realize the potential for economic growth and women empowerment through goats and groundnuts. We propose promoting the cascading effects in a market-oriented context. Realizing the market demand for groundnuts and goats, various programs have started to invest in these value chains. Market incentives must stimulate farmers working together and minimizing transaction costs. Better organized farmers will become more attractive partners for the private sector, which will then reinvest in new processing and value-addition facilities. Realizing that development organizations will become more efficient and effective in scaling out goat and groundnut technologies and market infrastructure, ICRISAT ventured into new initiatives for groundnut and forage seed multiplication. This will convince governments to reduce cost of compliance, and support and generate significant revenue from these value chains. Innovation platforms are important to keep the dialog open among women and men farmers, traders, extension personnel, government and research, providing feedback for planning and adaptation processes in the longer term.

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This brief outlines one way of women's empowerment through innovation platforms on agricultural commodities: We illustrate the different experiences at two project sites, in Nkayi and Gwanda, in the semi-arid part of the country.

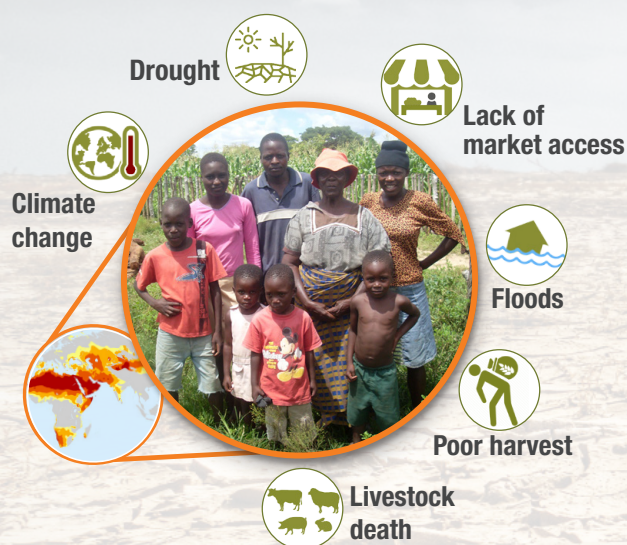
Contributions stem from the project on Integrating Crops and Livestock for Improved Food Security and Livelihoods in Zimbabwe (ZimCLIFS): 2012-15 uses markets as a catalyst for economic and social change. It provides good examples on how women and men farmers can use dynamic changes in today's farming to their own advantage. The focus is on farming systems with benefits from better integration and diversification of crops and livestock. The lessons learnt from the participation of both men and women in

the project highlight the gender importance in improving food security and livelihoods for smallholder farmers in Zimbabwe.

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Challenges Faced by Dryland Communities



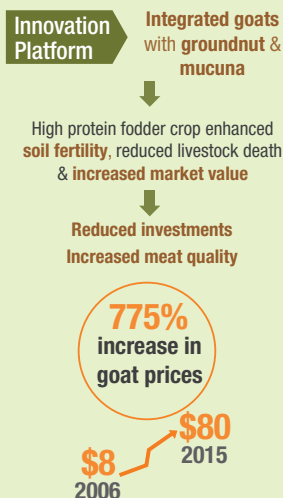
And there exists a **complex** external & internal **socio-economic-political context** that creates **barriers**



Building Resilience in the Drylands through Innovation Platforms

Fodder innovation for higher crop-livestock value

Zimbabwe



Stimulates

Feedbacks, convergence and policy making



Innovation Platform (IP)

is an inclusive, multi-stakeholder & participatory space building local capacity to generate & adopt **context specific innovation** & solutions resulting in rapid uptake of technologies and **break barriers** for **sustainable natural resource** management, improved **food security** and **better livelihoods** in the world's dry areas.

