

A Study of how Canadian aid for agriculture contributes to the Feminist International Assistance Policy

Case studies synthesis report

June 2020

INTRODUCTION TO CASE STUDY RESEARCH

Women are at the forefront of agriculture across the developing world. They are farmers, gardeners, providers of key inputs such as water and fuel, seed savers, innovators, and sellers. In least developed countries, 79% of women depend on farming for their livelihoods.¹

Yet women face gender discrimination in the form of unequal access to productive resources and services, lack of training, and lack of marketing opportunities. Restrictive social norms too often undermine women's agency in their homes, on their farms, and in their wider communities.

Food producers are also on the front lines of climate change. For farmers, who depend on a predictable climate, climate change threatens their very livelihoods. Women are especially vulnerable. Traditionally, they are household food providers but they lack access to knowledge, training and resources for climate change adaptation—and the freedom to respond appropriately to climate risks.

Agriculture and food systems are critical avenues for making change at the nexus of gender and climate change. And that change is happening!

In 2019, the Canadian Food Security Policy Group (FSPG) commissioned six case studies to understand how Canadian investments in agriculture support sustainable development outcomes in West Africa. The six projects selected for study were implemented by Canadian civil society organizations, through West African partners, and funded in part by Global Affairs Canada. These case studies are part of a larger research project that also includes a comprehensive statistical review of Canada's investments in agricultural development and food security. To read the full reports, including the individual case studies, please visit <https://ccic.ca/leaders-in-the-field>.

The six case studies all exemplify how well-planned, inclusive agricultural development projects can not only improve food security and livelihoods, but also empower women and girls, and improve climate change resilience.

Female farmers in the six profiled communities gained access to productive resources, such as land, livestock and farm inputs. They received training in agricultural techniques, and financial and farm management. They acquired new knowledge, and gained access to finance, services and marketing opportunities, often for the first time. With support from project implementers and the engagement of whole communities, women challenged and began to change long-entrenched social norms. Some men began to share in traditional women's work. Women began working collectively in groups and taking on new leadership roles, which built their confidence and earned them more respect. They are now earning more money, and increasingly making their own choices in how to spend it. Their families saw the benefits of the changes.

The farmers involved in these projects, especially women, better understand climate change risks, and are building more resilient farming livelihoods. They are employing adaptive practices, such as soil restoration, the System of Rice Intensification, mulching, crop rotation, and agroforestry to

¹ FAO (2006) <http://www.fao.org/docrep/009/a0493e/a0493e03.htm>

combat the impacts of climate change. They have diversified their livelihoods to reduce risks. And they have integrated innovative technologies, such as energy saving cooking stoves and biodigesters to improve environmental efficiency and reduce their vulnerability.

This careful focus on improving gender equality and climate resilience contributed to strong food security and livelihood outcomes. Yields increased, and so did incomes. Food producers practiced collective marketing and improved their market access; they participated in savings and loans groups, improving their financial security.

Every agricultural development project faced challenges—and progress was not always smooth in these projects. Transformational change requires inclusive processes and challenges to power imbalances. This takes time. Important steps towards gender equality can appear insignificant without context. But change is happening. And it is proving sustainable.

Four of the projects that were studied had ended two or three years before this research was undertaken, and there is significant evidence that deeper level change has continued. Women speak of the respect they now experience in their communities, of the ongoing benefits of the savings and loans groups they still participate in, and the improved lives they and their families continue to enjoy.

Agricultural programming at the intersection of climate change and gender equality is not only central and effective to achieving the goals of the Feminist International Assistance Policy (FIAP), but it is also making important contributions to achieving the Sustainable Development Goals.



WHAT'S WORKING IN AGRICULTURE?



Strategies That Improve Gender Equality and Climate Resilience



Increase Knowledge and Skills

- Provide training, especially for women: e.g. in production, financial literacy, business management, marketing, on climate risks and adaptation, gender relations
- Use new ways to reach farmers: radio, talking books, SMS texts



Boost Farm Productivity

- Improve farming practices; integrate climate resilience
- Improve women's access to resources: e.g. land, livestock, inputs, finance
- Provide agricultural extension services
- Share work/reduce women's labour



Develop New Income Sources

- Diversify livelihoods to lessen climate risk
- Establish local enterprises: e.g. food processing, beekeeping
- Enable women's collective action: e.g. via savings groups, producer and marketing co-ops
- Leverage access to financial credit
- Promote social protection: e.g. crop insurance
- Support marketing, especially for women



Keys to Success



Design for gender transformation and climate change resilience

Adopt an integrated household approach to gender: involve men and boys

Identify gender champions (men and women)

Use peer-to-peer mobilization

Build lasting partnerships with existing community resources

SDG Outcomes



- Higher crop yields, farm surpluses for sale
- New income sources: food processing, community-based enterprises, co-ops
- Increased family income: e.g. for food, household expenses, school fees, farm inputs
- Greater year-round food security: more diverse diets from on-farm production, greater access to purchased food
- Better health, especially for women and children: reduced childhood malnutrition
- More jobs / economic opportunities in rural areas



- Increased income for women / greater control over income
- Stronger voice for women in household and farming decisions: e.g. on family spending, farm production
- Greater autonomy for women: e.g. more freedom of movement
- Stronger role for women in community / as leaders
- More collective action by women
- Reduction in harmful gender norms / attitudes / behaviours
- Less gender-based violence



- More awareness of climate change risks, mitigation and adaptation techniques
- More sustainable / climate sensitive production
- Strengthened climate change resilience and adaptive capacity
- Less vulnerable food systems
- Innovative technologies: e.g. energy saving cooking stoves, biodigesters
- Early warning systems

Context: West Africa

Agriculture is a significant part of the economy in West Africa, where all the projects featured in the case studies are located. Agriculture makes up 35% of Gross Domestic Product (GDP) in the ECOWAS² region.³ In the four case study countries, this ranges from 20% of GDP in Ghana to 55% in Sierra Leone. Agriculture is also a major employer, providing livelihoods for about 65% of people in the ECOWAS region, ranging from 52% of workers in Ghana up to 80% (for agriculture and fishing) in Mali.⁴

Despite the significance of the agricultural sector, food insecurity is increasing in West Africa, rising from 12% in 2005 to 15% in 2018.⁵ Across the region, 40% of children are stunted, 12% suffer from acute malnutrition and 75% from anemia. By 2025, half of the region's population, estimated to grow to 450 million, will be living in urban areas. Food requirements are expected to increase by around 50% from 2015.⁶

West Africa doesn't produce enough food to feed itself, despite recent production increases in certain sectors (rice, maize, poultry). Past gains in productivity have been largely based on bringing new land into production, rather than intensifying production on existing farms. However, current efforts to intensify production face challenges. While irrigation, on average, leads to doubling of grain yields, most West Africa countries have less than 5% of their cultivated land equipped for irrigation.⁷ Other inputs that have the potential to increase productivity (high-quality seeds, fertilizer, improved livestock breeds, veterinary products) are unavailable or unaffordable for smallholder farmers. In addition to these productivity challenges, ECOWAS also notes challenges related to gender inequality, financial tools and the role of the private sector.⁸

Despite the fact that agriculture is prominent in national development plans in many West African countries, investment in this sector has generally been low. In 2003, African Heads of State signed the Maputo Declaration, committing to devote at least 10% of public expenditure to agriculture. By 2017, six West African countries had increased spending, but only two had reached the 10% goal.⁹ Where agriculture budgets have increased, it has often been to support subsidies for fertilizers and equipment, spending which is not always well-targeted to reach poor smallholder farmers.^{10,11,12}

Women make up more than half of the people involved in farming in West Africa yet have little access to land and other relevant resources. Female farmers receive only 5% of extension services, and only 10% of all aid for agriculture, forestry and fisheries goes to women.¹³ West African

² Economic Community of West African States, including Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

³ ECOWAS (2017). 2025 Strategic Policy Framework <http://araa.org/sites/default/files/media/ECOWAP%202025%20Strategic%20Policy%20Framework%20ENG.pdf>

⁴ Data from the case studies of this research project and ECOWAS 2017 report.

⁵ FAO (2019). The State of Food Security and Nutrition in the World, https://docs.wfp.org/api/documents/WFP-0000106760/download/?_ga=2.215873940.2078338663.1588882220-834884127.1536869397 p 8

⁶ ECOWAS (2017). 2025 Strategic Policy Framework

⁷ HLPE (2015). Water for food security and nutrition. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2015.

⁸ ECOWAS (2017). 2025 Strategic Policy Framework

⁹ ECOWAS (2017). 2025 Strategic Policy Framework

¹⁰ FAO (2017). Mali: Country Fact Sheet on Food and Agriculture Policy Trends. <http://www.fao.org/3/a-i7617e.pdf>

¹¹ FAO (2015). Ghana: Country Fact Sheet on Food and Agricultural Policy Trends. <http://www.fao.org/3/a-i4490e.pdf>

¹² FAO (2014). Burkina Faso: Country Fact Sheet on Food and Agricultural Policy Trends. <http://www.fao.org/3/i3760e/i3760e.pdf>

¹³ FAO (2016). Has ten-year implementation of the regional agriculture policy of the Economic Community of West African States (ECOWAP) contributed to improve nutrition? <http://www.fao.org/3/a-i5859e.pdf>

countries have recognized that gender inequality is a problem and are trying to address it through investments in education and health. ECOWAS has noted gender inequality as a significant problem slowing progress on agricultural goals.¹⁴

Land degradation is an issue of ongoing concern in West Africa. Rapid population growth has led to deforestation, expansion of cropland and overgrazing. These in turn have fostered declining productivity, soil erosion, desertification and loss of biodiversity.¹⁵

Against the backdrop of current environmental problems, there is the growing challenge of climate change. Africa is expected to become dryer over the coming decades, with a greater number of extremely dry or extremely wet years in the Sahel region, and more severe droughts overall. This is expected to lead to declining fresh water supplies, longer droughts, less predictable growing seasons and increased risk of livestock diseases. In addition, coastal areas will likely see impacts from sea level rise, intrusion of saltwater into agricultural areas and declines in fish stocks. The resulting displacement of people and their livelihoods will have impacts throughout the region.¹⁶

¹⁴ ECOWAS (2017). 2025 Strategic Policy Framework

¹⁵ United Nations Convention to Combat Desertification (UNCCD). 2019. The Global Land Outlook, West Africa http://catalogue.unccd.int/1220_GLO_WEST_AFRICA_E.pdf

¹⁶ UNDP (2011). Climate Change Adaptation: Western Africa. <https://www.adaptation-undp.org/explore/western-africa>

CASE STUDY BACKGROUND

Figure 1: Summary of Case Studies

PROJECT NAME	COUNTRY	CANADIAN CSO	PARTNERS	YEARS	DESCRIPTION
RADCHA - Radio pour le développement des chaînes de valeur agricole	Mali, part of a larger project including Ghana, Malawi, and Tanzania	Farm Radio International	Farm Radio International Mali	2015-2017	This project worked with three radio stations in Mali and 91,000 farmers (about 39% women) who listened to FRI-sponsored programs. RADCHA spanned four countries, with the case study focusing on Mali. With support from Farm Radio International, the radio stations broadcast two years of radio programs that covered various aspects of chicken production to address the needs of small-scale poultry farmers, with the goal of increasing production and profits. The programs focused on improving disease control in poultry, construction of chicken housing and improved poultry marketing, and promoting gender equality among poultry farmers.
FARM – Financement Agricole et rural au Mali	Mali	Développement international Desjardins SOCODEVI	Banque nationale de développement Agricole (BNDA); Office du périmètre irrigué Baguinéda (OPIB); Organisation paysannes locales de Baguinéda (10 OP)	2017-2021	This project worked with 1978 smallholder farmers (76% women) growing irrigated onions in Mali, aiming to increase their productivity and incomes. Women were encouraged and supported to use financial services including savings, loans and crop insurance. They also had the opportunity to learn more about farm management and environmental practices, to establish links with value chain actors, and to work together in producer associations.

RESULT – Resilient and Sustainable Livelihoods Transformation	Ghana	Canadian Feed The Children	Association of Church Based Development Projects	2012-2018	This project worked with 21,100 farmers (70% women) and their families in Ghana to overcome food insecurity and vulnerability. Interventions were targeted at poorer, female-headed households, and included activities to improve women's access to land, productive resources and technology, and strengthen women's decision-making power in the household as well as their income-generating activities and access to finance. The project trained community workers for agriculture and livestock, trained farmers in climate-smart agricultural techniques, and promoted diverse income generating activities for rural entrepreneurs.
GROW – Greater Rural Opportunities for Women	Ghana	Mennonite Economic Development Associates (MEDA)	Tumu Deanery Rural Integrated Development Programme (TUDRIDEP); Professional Network North (ProNet); Community Aid for Rural Development (CARD); Capacity Enhancement and Community Support (CAPECS); Partnership for Rural Development Action (PRUDA)	2012-2018	This project worked with 23,368 female farmers, training them to grow and market soybeans in the Upper West Region of Ghana, to improve their food security and household income. Project activities were aimed at improving women's linkages to markets to sell soy and other agricultural products, accessing productive land and technology, increasing soybean yields, processing of soybeans to produce a diverse selection of nutritious products for consumption and sale, and improving financial inclusion through savings groups and linkages to microfinance institutions. The project also introduced climate-smart agricultural techniques to build resilience.

IMSA – Innovation and Mobilization Initiative for Food Security	Burkina Faso, part of larger project including Bolivia and Peru	Mission inclusion	Action pour la Promotion des Initiatives Locales (APIL); Union des Sociétés Coopératives pour la Commercialisation des Produits Agricoles de la Boucle du Mouhoun; Association pour la Formation le Développement et la Ruralité (AFDR)	2015-2020	This project worked with 3000 farmers (51% women) growing cowpea, sorghum, millet, onion and tomatoes in Burkina Faso. It was designed to increase productivity and improve marketing, as well as environmental sustainability. It strengthened value chains for both women and men and worked with producer organizations to improve governance and make them more responsive to producers' needs.
SATISFY – Systems Approach to Improve and Sustain Food Security	Sierra Leone	World Vision Canada	World Vision International-Sierra Leone; Agriteam Canada; Radio Wanje; Sierra Leone Agricultural Research Institute (SLARI); Farmer Field Schools (FFS) Federation	2012-2017	This project, which was implemented in three other countries (Ghana, Mali and Senegal), worked with 17,071 smallholder farmers (62% women) in Sierra Leone, who were supported to grow various crops and livestock using improved breeds and climate-smart technologies (e.g. System of Rice Intensification) to promote sustainable livelihoods and use of healthy foods by women, men and their families. It also worked with staff in several government ministries to increase institutional capacity to deliver effective gender-responsive agricultural services.
Number of participants¹⁷ (total of 6 case studies)					158,422 (including 87,267 women)

¹⁷ This is adults only. Some projects also counted children as indirect beneficiaries.

The six case studies were chosen by a steering committee of FSPG members that considered impacts against both project goals and FIAP goals, especially gender equality and climate change resilience. Each featured project is exemplary in its achievements.

The case studies were undertaken by independent West African research teams. Guided by a research framework that included questions regarding outcomes related to gender equality, livelihoods, food security, and climate change, the teams reviewed project documents supplied by implementing and partner organizations and carried out qualitative research in communities where the project was (or had been) active. Research teams employed a mix of focus group discussions with groups of project participants, and in-depth interviews with project participants and key informants, including local partner staff, government officials and community leaders. Figure 2 summarizes the interviews conducted for each case study. The researchers were asked to ensure gender balance among the respondents and local translators were employed to ensure active participation from the community members. Draft reports were reviewed by sponsoring organizations for accuracy, received feedback from the steering committee responsible for the project and were validated by the communities engaged in the research.

Figure 2: Summary of interviews by researchers

PROJECT	# OF COMMUNITIES	# OF FOCUS GROUPS	# OF FOCUS GROUP PARTICIPANTS (% FEMALE)	# IN-DEPTH AND KEY INFORMANT INTERVIEWS (% FEMALE)
RADCHA	2	8	52 (35%)	40
FARM	3	4	51 (92%)	10
RESULT	2	4	36 (50%)	14 (86%)
GROW	2	4	32 (50%)	16 (83%)
IMSA	3	9	Approx. 122	9 (44%)
SATISFY	3	3	30 (70%)	7 (29%)
Total	15	34	323	87

RESEARCH FINDINGS

These six projects together illustrate that relatively small investments in agricultural and food systems can spark substantive change for women, their families and their communities. They demonstrate how well-targeted investments can build more climate resilient livelihoods, support inclusive economic growth, and improve food security— closely aligning with the desired outcomes of the Feminist International Assistance Policy.

1. Realizing gender equality and the empowerment of women and girls

There are many challenges to achieving gender equality, especially in developing countries, and empowerment of women is a long-term process that challenges power relationships in society. Progress toward gender equality and the empowerment of women and girls may be seen on the farm itself (who makes decisions, who controls money), but it may also be seen in the home (who is responsible for cooking, cleaning and raising children) and in the community (who leads organizations, where do women feel safe).

On average, women make up 43% of the labour force in agriculture in developing countries.¹⁸ Yet they face multiple barriers that constrain their ability to earn, to exercise control over their own lives and to act in the interest of their families. Research has demonstrated three effective pathways for supporting women's empowerment through agriculture.¹⁹

1. Improve women's **access** to resources, including land, water, farm inputs, labour, financial services, knowledge, technology and markets.
2. Strengthen women's **agency** to define their own goals and make their own decisions.
3. Support **collective action** by women, as collective voices are more effective for gaining access and agency.

These case study projects have provided evidence for these three pathways in action.

Women have greater access to productive resources

The case study research found that project interventions enabled women to overcome gender discrimination to better access productive resources and to flourish as farmers.

LAND - Women in four of these projects said they had more access to land as a result of project interventions. Female farmers in the RESULT project increased their farmland from (on average) one to 2.5 acres during the project, and this persisted after the project ended. In the RADCHA project, women who had previously only had access to poor lands started to gain access to fertile fields. With productive land to farm, women achieved more financial independence, allowing them to invest more in their families and back into their farms.

After the land meeting, the chiefs and leaders also spoke to the men in the community and the men started giving women more land to farm. In this community they have stopped giving women bad lands... Women in our group have gotten more land.

Female farmer, GROW

LIVESTOCK - Through various project interventions, women gained access to more livestock and improved livestock management skills. This improved their financial situation, increased access to draft power, provided more animal-sourced foods for family consumption, and provided something to fall back on times of need.

¹⁸ FAO (2011) Women in Agriculture: Closing the gender gap for development

¹⁹ CFGB (2016) Equal Harvests: How investing in agricultural development can empower women <https://foodgrainsbank.ca/wp-content/uploads/2015/01/Womens-paper-April-2016.pdf>

FARM INPUTS - Women involved in these projects gained greater access to inputs for crop and livestock farming, equipment and technology. During the time frame of the GROW project, the proportion of female farmers who had access to production inputs increased from 14% to 63%.

Women have greater access to knowledge, services and markets

Knowledge, services and markets are essential resources to enable farmers to thrive, and they augment productive resources such as land, livestock and inputs. This can include access to government services, financial services, relevant information and training, knowledge of market conditions, and the freedom to take on marketing.

These case studies illustrate many examples of project participants gaining in knowledge, understanding and skills. This applied to market dynamics and prices, skills related to farm production and management, health and nutrition, and business and financial skills. Through improved financial services, market access, and better market information, women stepped up their role as market actors, planning and implementing business plans, travelling on their own and earning more money.

Women in the GROW project who had access to farm extension services increased from 26% pre-project to 85% post-project. In the FARM project, participants gained better understanding of crop production and how to manage an organization. Together, these contributed to more confidence as producers and market actors, with the skills to plan their enterprise and to calculate profit or loss.

The FARM project led over 250 training sessions for women on financial education, new cultural techniques, and connecting to value chain stakeholders. This training enabled women to improve their management of farm and household finances.

Taken together, these resources have enabled women to pursue their own plans, and contributed not only to their own agency, but also to family well-being.

Women have more control over their lives

Through participation in these projects, women gained in self-confidence and related abilities including public-speaking skills, entrepreneurship and the ability to lead others. Not only did they develop decision-making skills, but the projects created an enabling environment for these skills to be put into practice.

In the SATISFY project in Sierra Leone, women have taken on new economic roles, including hiring labour, travelling to sell produce, managing income-generating activities and managing

I always thought that this was a man's job... It never attracted my attention at all until now. I became a participant in this project and I was given a biodigester²⁰, then I began to take care of it. I see it's a good thing.

Female participant, IMSA

At home, it is the woman who takes care of child care and food needs. Earning more income allows women to help their husbands cover family expenses. The woman's income provides greater financial independence, promotes family harmony and helps take care of children.

Women's focus group, FARM

²⁰ When animal manure is added to a biodigester, it ferments to produce biogas (which is used for cooking) and a by-product that can be used as fertilizer.

savings and loan funds. Women from the FARM project reported that they could now act autonomously and travel alone to meetings, a change from the past. Of the women who participated in the RESULT project, 57% reported that they take part in household decision-making (compared to 28% at baseline), in addition to taking on stronger roles in local producers' groups and in the community. In the RADCHA project, women reported that their own involvement in marketing chickens increased from 1.5 to 3.7, on a scale of 1 (not at all involved) to 5 (very involved).

All six projects included examples of women gaining more control over their lives. Told in their own words, these are powerful testimonies of the transformations that can occur when gender norms are challenged and overcome.

Women are taking stronger leadership roles in organizations

Women are more likely to gain access and agency when they work together in groups. These may be through producer associations, co-operatives, savings and loan groups or other organizations. Working together builds self-confidence and leadership skills, strengthens bargaining power and gives women an opportunity to learn from each other.

In the projects profiled here, women were able to play greater roles in producer groups and other organizations. In turn, these organizations were strengthened to be more effective in meeting the needs of women and their families.

Women in the RESULT project spoke of the changes that came about through their membership in a savings group: Women had more money for both farm and family needs, and a forum to express their views and learn from peers. A government staff person, interviewed as a key informant from the FARM project, noted the transformation of one female producer who was part of the project, from somebody who lacked the confidence to speak in public or receive visitors, to a self-assured spokesperson for her group.

In some cases, new producer organizations started, or farmer associations evolved into co-operatives to serve people in multiple ways. A part of the RADCHA project in Mali, women in one region started an association of chicken breeders. As the founders, they took on leadership roles which may not have been possible in a pre-existing association. In other cases, organizations played a significant economic role, by taking on the ownership of assets that were too costly for individual households, such as large livestock (IMSA).

Social norms are challenged

Long-term transformative change requires addressing social norms, attitudes, behaviours and underlying social systems that undergird gender inequality. This requires working with both women

The women ... started making money and they contributed to the upkeep of the house, the children's school fees, and other needs. [Then] their status as mere consumers changed, you see? They gained power and the respect of their husbands.

Key informant, GROW

We are in control of our own resources now.

Female participant, SATISFY

and men, as illustrated by the successes of these projects. Agriculture depends on both genders—in different cultures, the division of labour will vary, but food and agriculture depend on the contributions of the whole household (or community).

Agricultural development projects are rich in the possibilities they offer to support processes and outcomes that build lasting gender empowerment. By targeting certain activities to women, others to men, and some to both, the project assessments reported progress on gender equality on several fronts.

After participating in the projects, men had improved understanding and acceptance of women's human rights and began to value women's contributions more. In the RESULT project, male participants who acknowledged women as equals in the household increased from 24% (baseline) to 71%. In almost every project, men began sharing in farm and domestic tasks previously done by women alone, such as working on crops planted by women (FARM), looking after women's livestock (RADCHA) and caring for children (GROW).

As a result of these projects, women have overcome barriers in agriculture and community life, enabling them to participate in many endeavours previously reserved for men. Gender barriers differ by country and context. In these projects, they include raising and selling livestock on their own, growing cash crops and increased mobility e.g. traveling to market alone. In the GROW project, women were increasingly recognized in National Farmers Day awards, which were traditionally given to men. In 2016, a GROW woman won Regional Best Soybean Farmer and 24 other project clients won district soy awards.

These changes came about through innovative and effective program interventions, including Talking Books and male gender champions. The Talking Book is a battery powered device with recorded audio messages about farm management, gender relations and other topics, that were loaned to GROW project participants for a set time. A key informant from this project reported that the messages about gender were the most popular, and that women and men listened together and asked for more.

Several projects worked intentionally with male gender champions – people with influential voices, often because they were religious or traditional leaders. When the male leaders in communities are convinced, it is much easier to convince others.

When the FARM project started, some women could not get access to land for growing onions; the men were growing rice on the land and wouldn't allocate land to women. However, over time, as the men came to realize that women could make more money growing onions, they began to allocate more land to women. In some cases, the village chief intervened, naming one man to support the women and making sure they were getting the necessary resources.

Whatever you want to do, even if it is targeted at women, you need to involve the men. Not just involving the men, but winning them to accept your intervention, because in this part of the country that we find ourselves, men dominate everything.

Key informant, GROW

As the men involved in the RESULT project witnessed the benefits of women investing more time in agriculture, they stepped up in support, allocating more land to women and doing more of the domestic chores. Their behavior served as a model for the next generation, as male children in the home have started doing more domestic work so their mothers can devote more time to income generating activities.

When men witnessed the benefits of women's empowerment, and this was supported by influential men in the community, social norms started to transform. In focus groups conducted for these case studies, husbands of project participants reported that gender equality was good for themselves, their families and the community (RESULT).

In the IMSA project, once women gained experience with farm loans, some began to request loans for their husbands so the family farming enterprise could expand. Also in IMSA, the community found that management of a collective asset, related to drilling water, was carried out more effectively by women than by the men who used to do it.

One notable benefit of improved gender relations is a reduction in gender-based violence (GBV). Participants in the RADCHA project made specific reference to a reduction in GBV. Other case studies did not mention it by name, but alluded to it when they described improvements in gender relations within families.

The IMSA project asked women if their lives had improved in four areas: access to land and credit, decision-making roles, contribution to family expenses and participation in farm organizations. Nearly half of the women (47%) reported improvements in all four areas, and 78% reported improvements in at least three areas. As an indication that women's empowerment also helps men, 89% of men said the IMSA project had improved their lives in at least three areas.

The changes highlighted in this section (social norms) build on the sections above (access to resources, increased agency, roles in organizations) to demonstrate significant steps on the long pathway toward transformative changes in society. Working through the agricultural production and value chains where most people derive their livelihoods, these case studies have made the point that agricultural projects can be effective in bringing about gender equality and empowerment of women and girls.

2. Improving livelihoods and contributing to food security

Increases in Income

These projects in West Africa demonstrate significant improvements in women's and men's productivity and livelihoods, a desired goal of all agricultural projects. In addition, they delivered knock-on economic and social benefits for families and communities.

Now that I better understand the status of women, it is clear to me that women should not do everything alone; men should help them. ... There is no doubt that women have flourished as a result of this project.

Focus group, RADCHA

SATISFY has helped us to give women their rightful place in society for development. Currently, women are at the forefront helping us to plan in the community and contributing financial assistance for development.

Male participant, SATISFY

Before Farm Radio's RADCHA project started in Mali, farmers reported average mortality of 70% for the chickens they raised. To address this problem, the project broadcast radio programs about poultry disease management. Post-broadcast, communities that were able to listen to the programs scored almost four times higher on tests of relevant knowledge than communities that were not able to hear the program. In listening communities, the chicken mortality rate dropped to 30%. This new knowledge, combined with improved market information, enabled farmers to increase incomes from selling chickens by an average of 74%.

There were similar impacts in Ghana, where animal husbandry training in the RESULT project led to decreased goat mortality, for male farmers from 35% to 22%, and for female farmers from 52% to 11%.

As a result of the SATISFY project in Sierra Leone, both women and men had improved access to market information (women 28%, men 7%). The project enabled 83% of women and 72% of men who had no previous access to finance, to gain access to new financial resources. Compared to baseline, 93% of farmers increased their income from sale of cash crops and 87% from cassava. Most youth-headed households (84%) also reported an increase in income from cassava production. Farming has shifted from self-sufficiency to a business.

We now produce not just to eat but to sell the surplus in the market to generate income to solve our domestic problems.

Participant, SATISFY

In Burkina Faso, the IMSA project set up a tomato processing unit, to add value and reduce the risks of marketing a perishable product when prices were low. Having the option to process their tomatoes has enabled participants to gain more market control. Also in IMSA, yields have increased due to improved seeds and livestock genetics, as well as better farming practices.

Participants in the SATISFY project adopted the System of Rice Intensification²¹, which resulted in average yields increasing from 125 to 900 kg/acre.

In the GROW project, farmers were able to expand production into the dry season, with a 52% increase in productivity. GROW clients saw their incomes double over the course of the project, on average.

Farmers in the RESULT project saw yields double in some cases, through the combined effects of training, improved practices and access to information. In several projects, participants made additional income by diversifying to new enterprises, including aquaculture, fish smoking, shea butter, soap making, basket weaving and selling compost.

In some cases, the improvements in income were less about production, and more due to business and financial skills. Some communities saw incomes increase as farmers increased their bargaining

²¹ System of Rice Intensification (SRI) – a rice cultivation system that uses less water, fewer seedlings and more labour than traditional rice farming, and produces higher yields and lower greenhouse gas emissions.

power through collective marketing. The SATISFY, FARM and RESULT projects all promoted village savings and loan associations; 70% of RESULT participants subsequently saw increases in income.

Improved Food Security

Farmers supported by these projects improved their access to nutritious food through the year, partly through greater availability of home-grown food, and partly through increased incomes which enabled them to buy what they didn't grow.

Farmers in three projects reported that food produced at household level was replacing purchased food. Participants in the RESULT project said they were food secure for an average of ten months per year after the project, seven months longer than pre-project. They attributed this to higher yields, better storage, reduced post-harvest losses and new or improved fish and livestock production.

With improved access and skills, women were able to increase the productivity of their farms, leading to improvements in household income and more financial independence.

Thanks to my income from poultry farming, I am more or less financially independent.

Participant, RADCHA

Improved Nutrition and Health

Food security is not only about the quantity of food, but also the quality – does it fulfil dietary needs? Project activities improved dietary diversity and nutritional content by increasing consumption of animal-based/sourced foods, increasing diversity of vegetables consumed and extending the production season for crops.

The SATISFY and IMSA projects included components dealing with water, sanitation and hygiene, which complemented agricultural components for overall food security.

By encouraging diversity and enhancing productivity on farms, the SATISFY project demonstrated improvements in nutrition for children under five. By project end, 29% of boys and 26% of girls met the guidelines for minimum dietary diversity, compared to 4% for all children pre-project. Women in the SASTIFY project reported that rearing ruminants is an “easy source of income and protein for the household.”

Before this time, we faced lots of problem with stunting and malnutrition in these communities. Now you cannot see a child here with kwashiorkor²² because we can provide the needed food nutrients for them from our backyard gardens, ruminants and poultry.

Female participant, SATISFY

Several projects documented health improvements for women, children and communities. As an example, after project activities by the GROW project in Upper West Ghana, participants scored better than average for that region of Ghana, in terms of body mass index (women) and stunting, wasting and underweight (children). IMSA participants said they don't need to take their children to the health centre as often as they used to.

²² Severe malnutrition caused by protein deficiency

More Opportunities for Rural Livelihoods

Overall, these projects opened the door to more livelihood opportunities in rural areas, extending beyond project participants to others in the community (farm labour, agro-processing) and nearby villages (increased value chain activities).

The RADCHA project reported that stronger job opportunities in rural areas was reducing migration to cities.

In some cases, project activities resulted in more demand for wage labour, providing income to young people and those who don't own land. The IMSA project offered training in seed production specifically for young people. When rice yields of farmers in the SATISFY project increased seven-fold, they hired people from nearby villages to help with the harvest. SATISFY's work to promote cassava production resulted in increases in income for 84% of youth-headed households.

The GROW project introduced soy, which was a relatively new crop in that region of Ghana, and for which there is huge commercial demand. This, plus the dry season gardens and other increased market opportunities, created more employment for family members. Some of the female soy farmers hired their husbands as the workload grew.

I used to go often to the city. One day, I went to visit an acquaintance who raised poultry and who had more than a thousand chickens. I was surprised at the scale of this activity. I talked about it with other people a lot until I decided to get involved in poultry farming myself. So I left my parents' home and settled a few kilometres away from the village. After that I did not participate in the "rural exodus" to the city.

Participant, RADCHA

3. Ensuring environmental sustainability and climate change resilience

With their dependence on the land, weather and predictable seasons, farmers are already feeling the impacts of climate change. These agricultural projects enabled farmers to assess climate change vulnerability and risks, start practicing adaptive techniques, and build climate resilience for the future.

Awareness of Climate Risks

Farmers in all projects gained a greater awareness of climate change impacts and practices they could implement to enable them to adapt. Some projects refer to "climate smart agriculture" while others prefer "sustainable agricultural practices".

The RESULT project looked specifically at climate vulnerability, and included interventions to reduce women's vulnerability, through better access to land, knowledge and other assets, empowering them for better decision-making in the changing future.

One component of the SATISFY project was training on techniques to reduce climate-related risks including flooding and wildfires. As a result of this, 58% more men and 106% more women said they had access to early warning systems and know how to reduce risks.

Women in the FARM project in Mali reported that they had improved capacity to deal with climate change, through learning improved farming techniques. Also in Mali, farmers in the RADCHA project gained a new appreciation for the importance of restoring the soil to adapt to climate change, noting that they feel better prepared now than before.

We were taught about creating fire belts, planting fast growing nitrogen-fixing trees, using sand bags to reduce water logging, establishing a seed bank for the next planting season.

Participant, SATISFY

Adaptation to Climate Change

Farmers adopted a variety of agricultural practices which are expected to enhance their resilience to climate change and other shocks. This includes use of manure and compost, crop rotation for nitrogen fixing, mulching, planting in rows and trenches, non-burning of farm residues, soil conservation, water harvesting and conservation, grass and tree planting and construction of small dams and reservoirs.

Through a combination of these practices, the RESULT project saw yield increases in some cases of greater than 400%. In this and other projects, farmers noted that higher yields from existing fields means that they don't need to clear new land or move to vulnerable land such as hillsides.

The RESULT project and others promoted diversifying livelihoods (new crops or livestock, agro-processing, rural manufacturing) to increase resilience to shocks related to agriculture. The GROW project promoted keyhole gardens (kitchen gardens constructed so they need minimal water or fertilizer) and reported that they increased productivity in the dry season.

Farmers participating in the RESULT project received SMS messages with weather conditions, which enabled them to optimize planting, and minimize risks. This project also promoted energy-saving stoves, which use less firewood and create less smoke in the kitchen. This creates a double benefit by reducing deforestation and improving air quality (and health) in the home.

In IMSA, adoption of biodigesters and other environmental practices not only aided the participating farmers, but also served as a model for other farmers, some of whom adopted these practices on their own. Farmers in the SATISFY project first learned about techniques to reduce climate-related risks (as noted above), then put these techniques into practice. Comparing baseline and endline of the project, implementation increased by 79% for women and 32% for men.

Improving Degraded Land

Both the IMSA and FARM projects reported restoration of degraded lands. This came about through agroecological practices such as use of organic inputs, soil and water conservation, reforestation and good environmental management. In some cases, land which has previously been considered unfit for cropping was improved to the point that it delivered good yields.

Last year, I had 0.25 ha of degraded land that I have worked using agro-ecological methods. I obtained about 700 kg of maize and 400 kg of cowpeas. I usually get less.

Female farmer, IMSA

4. Impacts on other development objectives

Though these case studies focused on three primary types of results (gender, economic and environmental), the researchers identified additional benefits resulting from these projects.

Changes in community relationships

Participants in three projects (RADCHA, IMSA, SATISFY) noted improvements in community relations and social cohesion that went beyond the improvements in gender relations mentioned above.

We are no longer borrowers from other people; we now borrow with ease and from our own savings. We can now extend caring hands to widows, orphans and help repair or refurbish our schools.

Participant, SATISFY

This was especially significant for the SATISFY project, which took place in post-conflict Sierra Leone. This project held community consultations before and during the project and had a member of the project team living in the target community. They used the information gathered to optimize project design, which led to greater community buy-in for project activities and more ownership of the results. Consensus was built through teamwork in the community, so while the direct result was economic empowerment through agriculture, the indirect result was that people had more confidence in their own abilities, and greater trust in those with whom they worked.

Others drew on local knowledge, encouraging people to pool what they knew, resulting in increased capacity for problem solving. In the RESULT project, a focus on local knowledge and local partnerships included a shea butter group, a basket-weaving group and various government offices sharing their knowledge with others. Stakeholders shared knowledge to make progress on economic issues (manufacturing, marketing) and gender relations (women's leadership). This emphasis on local knowledge and partnerships meant that interventions were more likely to resonate with participants and be sustainable in the long term.

In some cases, economic gains led to broader community benefits, for example when greater cooperation and higher incomes in the community led farmers to take the initiative to start new farm organizations and new village savings and loan associations.

The successes of target communities did not go un-noticed by others, as neighbouring communities learned from successful initiatives and started their own work to reclaim degraded lands (FARM) and introduce biodigesters (IMSA).

Improved governance

As noted in the section above (Changes in community relationships), some of these projects gave rise to new and stronger ways for people to work together. In many cases, this provided opportunities for women to take on leadership roles. There were also cases where existing organizations improved their functioning through stronger public speaking skills and organizational governance (FARM). As part of the RESULT project, 880 staff and government officials now have increased understanding and capacity related to gender equality.

Two projects reported enhanced relationships with local government and other institutions. IMSA participants believe these strong partnerships with local institutions and international research centres will continue post-project. SATISFY participants noted that strengthened relations with several government ministries are expected to improve the delivery of relevant community services.

5. Innovation and good practice in agriculture investments

One of the reasons these projects were so successful in achieving their goals and the goals of the FIAP was their innovative use of technology and community engagement and the way they approached gender issues. The table below highlights examples from the case studies.

	TECHNOLOGY	COMMUNITY ENGAGEMENT	GENDER PROGRAMMING
RADCHA (Mali)	Used radio programming to deliver information about poultry management and gender equality. It went beyond most radio programming by setting up two-way communication channels. During a radio show about a particular issue, there was a telephone forum to ask questions to experts. From this, the project was able to document that listeners increased their use of livestock vaccines and medicines.	Set up a contest between listening communities , with the village that best answered questions about the broadcast winning free livestock vaccination.	
GROW (Ghana)	Used Talking Books as a training tool for both agricultural practices and gender relations. When returned, staff could ascertain how many times each track was listened to and could listen to recorded audio feedback from participants. These proved to be an effective way to address gender equality issues	Held two large inter-community forums to raise awareness on the importance of women's access to land for agricultural production. Engaged village chiefs and religious leaders to continue advocating on issue	Introducing a new crop (soybeans) which was not part of existing gender norms, enabling women (and some men) to try it without barriers.

RESULT (Ghana)	Effective use of radio to advertise fish for sale, opening up greater market opportunities. Project staff also used SMS text messages to provide weather information to participants, enabling better crop planning and reducing vulnerability.		Invested in diverse partnerships , including producer's groups, several government departments and FAO, to share knowledge, overcome challenges, and ensure sustainability.
SATISFY (Sierra Leone)	Introduction of SRI (System of Rice Intensification) which led to higher yields with fewer inputs.	Community consultations were carried out before and during the project, and a project intern lived in the target community. This built community cohesion, reduced the risk of conflict, and helped with efforts to meet the needs of all community members.	
FARM (Mali)		Development of diverse partnerships along value chains, including financial suppliers, input suppliers, produce buyers, and government agencies.	Focus on a crop cultivated by women (onion), and developing activities based on women's needs and their lived experience. This enabled the project to effectively overcome the barriers that impede women's empowerment, and increase their autonomy, production and income. Development of an adapted credit product specifically for women.
IMSA (Burkina Faso)		Integration with government services. The provision of biodigesters, which was a central part of this project, was integrated with relevant government services.	The project made resources available to men and women based on their needs, generally giving women preferential treatment. Women were expected to repay less on inputs, so they could build up capital. And while individuals were given small animals (poultry), large animals (cows, donkeys) were only given to groups to own collectively.

CHALLENGES

Transformational change can take a long time. Overcoming decades of poverty, long-held cultural beliefs, and farming methods passed down from one generation to the next is a huge challenge for a project of three to five year's duration. Sometimes results don't match expectations. This might

mean the intervention wasn't appropriate, or that its implementation wasn't ideal. But it could also mean it takes more time. Change may be underway but not yet visible.

These projects demonstrate that much can be achieved in a few years. However they also highlight the challenges of striving for changes that transform gender dynamics and accepted ways of doing business, all while dealing with rapid environmental disruption.

Here are some of the challenges brought to light by the case studies.

In the RADCHA project, women found the information on **building chicken houses** informative, but were not able to build as many chicken houses as men. They didn't have as much access to land or enough money to buy materials. This serves to emphasize the importance of access to resources for women's empowerment.

Through the IMSA project, about 300 **biodigesters** were set up in communities in Burkina Faso. In a survey of 79 users, 24% said their biodigester wasn't working, due to lack of manure or other reasons. This might indicate a problem with the technology. It could also indicate that biodigesters were given to those who didn't have enough livestock to make it work, or that the lack of manure was temporary, and the biodigesters would come back into use when manure supply increased.

One component of the FARM project was **crop insurance** for onion farmers. In the second season after it was introduced, many farmers experienced a poor harvest, but not sufficiently poor to trigger an insurance pay-out for all of them. Their lack of experience with crop insurance led to unrealistic expectations; this made it challenging to convince them to re-enroll, or to enlist new customers. That however is changing. In the last growing season, the project held several meetings with women to explain to them how insurance works, and an additional 900 farmers signed up to purchase insurance.

Increased productivity can bring its own problems. While the IMSA project included tomato processing to open new marketing channels for a perishable product, the SATISFY project noted that the ability to **dry, process or store** the abundance could have added to the success that farmers experienced.

CONCLUSION

The six projects featured in this report began before the introduction of the Feminist International Assistance Policy (FIAP). The case studies summarized above were conducted three years after the FIAP rolled out. Years before the FIAP, the implementing organizations and their partners in West Africa understood that achieving sustainable and inclusive agriculture and food security outcomes would require women and girls to play a central role in these projects. Most also integrated climate change knowledge, and adaptive practices, to support resilient communities.

These six projects reached more than 150,000 farmers, many of them women, with benefits to their families and their communities.

These case studies—and the agricultural projects they're based on—demonstrate that investing in inclusive, resilient agriculture and food systems is a central pathway to achieving the goals now

outlined in the FIAP, and can make an important contribution to achieving the Sustainable Development Goals, especially No Poverty, Zero Hunger, Gender Equality and Climate Action.

Achieving those goals doesn't just represent boxes ticked in policy documents. It means that women have a strong voice in their own farming stories. It means families going to bed without worry about where their next meal will come from. It allows farmers to look forward with hope into an uncertain future—with adaptive knowledge and strategies in place.

Supporting resilient and inclusive agriculture and food systems has the potential for radical improvements in the lives and livelihoods of millions of people in low income countries.