

# SYSTEMS APPROACH TO IMPROVE AND SUSTAIN FOOD SECURITY (SATISFY) CASE STUDY REPORT

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## ACKNOWLEDGEMENTS

### About the FSPG Case Study Series

In 2019, the Canadian Food Security Policy Group (FSPG) commissioned a series of six case studies to understand how Canadian investments in agriculture support sustainable development outcomes in West Africa. Six case studies of projects supported by Canadian civil society organizations were selected. These projects showcase how such investments support broad sustainable development outcomes such as gender equality, environmental sustainability and climate resilience, improved livelihoods, and enhanced food security. Case studies were informed by literature reviews of project documentation and interviews and focus group discussions carried out in impacted communities with research carried out by local research teams supported by Canadian and local partners.

The FSPG is a network of Canadian development and humanitarian organizations with expertise in global food systems and food security in the Global South.

### Project at a glance

**Canadian partner:** World Vision Canada

**Local partner:** World Vision International, Sierra Leone

**Total Project Budget:** \$2,660,548

**Duration:** April 2012 - June 2017

**Project Location:** Pejeh, Malen, Kpanga Kabonde, Gallines Peri, Kpaka and Kpanga Krim Chiefdoms, Pujehun District, and Southern Province.

**Research location:** Gbondapi, Baoma Dabeni, and Bumpeh Peri.

**Participants:** 36,995 direct beneficiaries including women and men smallholder farmers, micro-entrepreneurs and staff of relevant government institutions. Women: 10,512. Men: 6,559. Children 19,924.

**Value chain:** Poultry and other livestock (pigs, goats and sheep), cassava, and rice.

**Key objectives:** Improved food security, women’s economic empowerment, gender equality and access to finance.

## **SIERRA LEONE: UNDERSTANDING THE CONTEXT FOR INVESTMENTS IN AGRICULTURE**

From 1990 to 2001, Sierra Leone was in turmoil, considered a failed state. This country experienced a remarkable turnaround between 2002 and 2009, and again between 2010 and 2014. In between these periods the country saw a financial meltdown that slowed its growth, mainly because of its dependence then on donor funding in the form of budget support, aid sustainability strides, and the Heavily Indebted Poor Country initiative (HIPC). The period between 2014 to 2016 was catastrophic. Sierra Leone suffered from the Ebola Virus Disease (EVD) which halted nearly all economic activities, leaving a never-to-be-forgotten scar on the country’s people and economy.

Agriculture has continued to make up the largest share of gross domestic product (GDP), estimated at 55.1 percent in 2017, followed by services at 36.6 percent, and industry at 9.3 percent. Aggregate spending of the economy mainly comes from private consumption and remains larger than what the whole economy produces. Economic growth has generally been driven by export-led capital-intensive mining over the last eight years. Sustainable growth will require de-concentration of productivity growth in capital-intensive industries such as mining, with its limited capacity to generate jobs, and will emphasize raising productivity in sectors where most of the labour force is found (e.g. agriculture).<sup>1</sup>

At the sectoral level, growth in agriculture was projected to increase from 3.9 percent in 2018 to 4.1 percent in 2019. The average for the period from 2020 to 2023 is projected at 4.7 percent. The crop sub-sector is estimated to grow by 4.7 percent for 2018 and 2019, and will increase to 5.3 percent in 2023.<sup>2</sup>

### **About SATISFY**

Supported by World Vision Canada, the Systems Approach to Improve and Sustain Food Security (SATISFY) was implemented in six chiefdoms in Pujehun District (Kpaka, Malen, Kpanga Kabonde, Pejeh, Kpanga Krim and Galiness Perri) in Sierra Leone. Implemented in partnership with World Vision International Sierra Leone (WVSL), the goal of the SATISFY project was to improve the food security status of people living in poor communities using a systems approach framework with a gender lens, as caring for families in rural areas in Sierra Leone is largely a women’s responsibility. The project tackled cultural and traditional barriers and practices to gender equality. SATISFY hinged on three key intermediate outcomes:

- i. Increased adoption of practices promoting sustainable livelihoods among households;
- ii. Improved utilization of healthy food in a gender-equitable manner and with a particular focus on children; and
- iii. Enhanced coverage and quality of agricultural services by building institutional capacity of government departments to provide these services.

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<sup>1</sup> Sierra Leone’s Medium-term National Development Plan 2019–2023. Government of Sierra Leone. Available at: <http://www.moped.gov.sl/wp-content/uploads/2019/03/Medium-Term-National-Development-Plan-Volume-I.pdf>

<sup>2</sup> Government of Sierra Leone Fiscal Strategy Statement (FSS) for 2019-2023. Prepared by the Ministry of Finance September 2018. Available at: <https://mof.gov.sl/wp-content/uploads/2019/02/Fiscal-Strategy-Statement-FY2019-2023.pdf>

The project was rooted in the philosophy of helping others to help themselves within a systematic approach to livelihood sustenance. It included diverse interventions and approaches such as:

- awareness raising and sensitization on gender equity issues;
- exposure of women and men to improved techniques and technologies of crop and animal production through training sessions;
- continuous monitoring of activities undertaken after training; and
- using fast maturing, improved crop varieties and inputs.

Capacity development and training were an important part of SATISFY. Training workshops were organized by WVSL in collaboration with the Ministry of Agriculture, Forestry, and Food Security (MAFFS) and Health and Sanitation (MoHS) to train women in climate-smart vegetable production and post-harvest handling of, for example, okra (rich in iron), green and crain-crain (vegetable), broad beans, and runner beans. The women were also trained on poultry production for egg production, fish farming, and rearing other animals for meat production for home consumption to improve the nutritional base of children for healthy growth and cognitive development.

A lack of access to finance and very low financial inclusion are major problems for farmers, women and small-scale households in Sierra Leone. Banks are based at District Headquarters, towns, and cities; and recently established Financial Savings Associations are far from some of the village communities. Given this situation, SATISFY introduced financial intermediation within a formal setting. Under the project, farmers were trained and organized into Savings Groups (SGs). The SGs serve as a major source of financing for emergencies such as sickness, injury, or death. An additional component that emerged from the SATISFY SGs was the establishment of a Social Fund to take care of emergencies and the provision of assistance to vulnerable and marginalized children by buying school uniforms, providing school learning materials, and helping to refurbish community schools.

## **Research approach and focus**

This study was informed by research in three communities within the chiefdoms included under the project, namely Gbondapi, Bumpeh, and Baoma Dabeni. Pujehun is a Muslim dominated district predominantly engaged in agriculture (including fishing and forestry). Gender disparities have been significant issues alongside food insecurity and natural disasters, including waterlogged soil, flooding, and wild bush fires. The implementation of the SATISFY project in the district was timely and apt. Though the project cycle was interrupted because of the EVD outbreak, it brought to focus certain basic development issues that require concerted efforts to yield economically and socially desirable outcomes. One development that they longed for was value-addition, branding, and marketing strategies alongside links with financial institutions. However, they never attained that level in their agri-business. Nevertheless, as shown below, the project realized a number of successes with respect to improving outcomes for women and communities.

This study is based on a review of project documentation (semi-Annual Report and WVSL final report), focus group discussions, and key informant interviews with the aid of interview guides (see Annex 4). The research team explored the perception of project beneficiaries and how the multiple intersections of the projects impacted gender equality, women's economic empowerment, children's nutrition, climate change preparedness, and improved food security within selected communities. Three focus group discussions and seven key informant interviews were carried out in the communities selected for the research. Annex 2 shows the two types of

data collection techniques (three focus group discussions, comprising 30 participants consisting of nine men and 21 women) and seven key informant interviews comprising five men and two women.

## **Investments in agriculture transform lives**

### **SATISFY was grounded in local priorities and strategically engaged partners and community to ensure support for women's empowerment**

Pujehun is a Muslim dominated district where women are expected to be seen and not heard. SATISFY was grounded in this reality and worked to empower women and girls by involving men in the planning stage of the interventions. SATISFY was informed by local priorities and community consent.

From the onset, SATISFY had gender equality and women's empowerment as an overriding goal which was supported by a gender mainstreaming strategy developed and informed by a gender assessment conducted at the start of the project. The project used multiple avenues to gather information and to sensitize communities on gender roles and dynamics including participatory analysis and collective collaboration between WVSL SATISFY staff; the Ministry of Agriculture, Forestry, and Food Security; and communities. Project staff and those of key partners (government) were trained on how to integrate gender considerations during implementation and the provision of extension services. Information about the project objectives and expected communal benefits was shared with local authorities (including Chiefs and key informants) who then shared with their communities. The lead researcher noted that the wives of all these key informants were running some viable small-scale businesses in the communities visited. The overall approach taken by the project demonstrated good practice that should be emulated by other projects to enhance communal ownership and ensure commitment of participants.

### **SATISFY engaged men to change attitudes towards women and gender equality**

Though the project involved a few influential men and Chiefs in the communities, the mandate was to empower women and girls and improve the nutritional status of children. In the Mende culture you cannot give money and/or business or responsibility to another man's wife without his consent; it is considered wrong and subject to a fine. The involvement of men resonates with the Mende culture, and with her husband's consent a woman can run her own enterprise without hindrance or tampering with the funds generated.

SATISFY staff liaised and collaborated with Chiefs and key informants in the communities who served as Gender Champions. These included Paul Mando and Brima Sengeh (from Gbondapi), Thomas Kekura and Murana S. Dabeni (from Bumpeh Perri), and Ibrahim Jakema and Mohamed Sahr (from Baoma Dabeni). These people served as voices for communities and related well with WVSL staff and the women. They helped plan and establish their SGs for farming. Meetings were convened which husband and wife partners attended together. In the past, the husband would attend a community meeting and then, if he so desired, he might inform his wife about some of the resolutions. SATISFY created an avenue for either spouse to attend, or both together. Engagement with men allowed SATISFY to create an avenue for women to control plots of land for farming without the interference of their husbands. It is now commonplace for women in the project areas to say: "I will farm these two acres and sell to my group after harvest."

To help eliminate gender stereotypes, SATISFY involved men in the gender equality discourse and made them part of the gender equality strategic planning. The gender assessment revealed that women and girls experience multiple deprivations and intersecting inequalities that include insecure land rights, limited participation in decision-making, overburdening household work, and limited access to credit and inputs such as fertilizers, irrigation, technology, information on new agricultural practices, and marketing infrastructure. Women in Sierra Leone are also highly illiterate (illiteracy is estimated at 80%). The sensitization of men on the role of women in development and their empowerment as a positive measure that reduces the gender inequality stereotypes that hamper inclusive growth is an indication of the success of SATISFY in the sampled communities. The project brought to the attention of the men how women working in unison for the building of their household's capacity are a source of economic development in a community (see Box 1 below).

**Box 1. The testimony of a male participant in Gbondapi**

*“Prior to SATISFY Project, I considered my wife as an illiterate, until SATISFY came here and trained us and the women about savings and credit patterns alongside creating a base for Social Fund. Currently, my wife does calculations in Millions of Leones, travelling to Bo and back with wares for sale. Now I know that with training people can be transformed to be more productive. SATISFY has helped us to give women their rightful place in society for development. Before now, women only [got] bits and pieces of information about the community from a few good husbands, but that normally happened in the kitchen when the woman [was] cooking. Currently, women are at the forefront helping us to plan in the community and contributing financial assistance for development. They are now chairladies and custodians of the Savings Boxes in our communities.”*

**SATISFY supported greater social cohesion and collaboration between men and women**

A common thread emerging from all the three communities, based on the focus group discussions, was the appreciation of the societal cohesion the project created. Women and men now say there is trust among people in the community after participating as members of SGs for over five years. All participants value the savings component and the establishment of the Social Fund component, which has cleared the way for individual problems to be seen as problems that affect everyone. A standard requirement of all SGs is that in addition to providing savings and loan functions, they must create a Social Fund to be used to support members when they experience emergencies. Usually the money is provided to the member in need as a grant, but it can also be in form of a repayable loan. Training was provided to all SGs on these aspects at the time of their formation. It is now common to find SGs and Farmer Based Organizations pooling resources for the vulnerable or for communal development projects such as replacing the thatched roofs of schools with corrugated iron sheets.

In terms of social cohesion, it is also not uncommon to hear rural women discussing gender equality strategies among themselves. In the focus group discussions, men and women discuss the advantages of working side-by-side with their partners/spouses, and men catalogue openly the contributions of women to the management of the family affairs. According to the final SATISFY report, the project assisted the communities to discuss gender issues, roles and responsibilities, and the synergy that can be established in such amicable relationships. By

sharing the Baseline Gender Assessment Research with communities it was possible to engage participants in the development of appropriate approaches to bridging the gender divide.<sup>3</sup>

### **SATISFY helped empower women through capacity development and support for women's leadership**

The project promoted, advocated for, and observed increased participation among women as local leaders and decision-makers. This was achieved through gender sensitivity trainings conducted by the project coupled with literacy training programs that specifically targeted women. This gave women the confidence to participate in community activities and increased their self-esteem. The project also provided women with income generating activities including the production of marketable nutritious foods that improved women's financial status, contributing to empowerment.

The SGs also offered women great opportunities to exercise leadership and decision-making. While the membership of SGs is voluntary and open to all, the project targeted and encouraged women to join and be active members, including taking leadership positions. In virtually all SGs, 80% of members were women, and they occupied key leadership positions such as chairpersons and custodians of savings boxes for those groups. In Gbondapi, 12 SGs merged to form a credit union in which women fill the roles of treasurer, vice chairperson, and auditor.

To provide business opportunities and leadership skills for women, training workshops were organized, and the women's groups catered the workshops for fees that were solely theirs. This led to increased acceptance of the idea that whenever women cook for meetings or other occasions they should be paid. Previously, women cooked for such events without payment.

#### **Box 2. Leading women**

*"We had a male as our Financial Secretary who used to collect the catering fees, but after some time we noticed anomalies and so we removed him and took over for ourselves. We are in control of our own resources now."*

According to the participants, there were training sessions on the rights of children and women as well as on human rights in general. This awareness-raising and sensitization was a welcome idea to both men and women and created an environment for women to be part of decision-making in the communities.

Adult literacy also contributed to empowering women. WVSL arranged literacy programs in collaboration with the Sierra Leone Adult Education Association (affiliated with the University of Sierra Leone) through the Department of Adult Education and Extra-Mural Studies at Fourah Bay College. Communities welcomed this component of the project and saw it as a Canadian sponsored program. It is not uncommon to hear from elders who took part in the adult education classes to say, "We want them (Canadians) to come back with that program." The desire and impact can be seen in the number of people in a meeting and the number of people spelling their

<sup>3</sup> As noted in the final SATISFY report, the strategy focused on the following: a) roles and responsibilities/division of labour; b) intensification at all levels of communication and awareness on gender equity; c) equity on access and control of resources; d) training was conducted on gender sensitive agricultural service delivery targeting government extension staff to strengthen extension services/ provision of veterinary services and training group members to take care of the ruminants; e) improving the level of empowerment of women; f) enhancing the organizational capacity and advocacy of women; and g) development of synergy of actors.

names, pronouncing a few difficult English words such as: “throughout”, “interview”, and “purpose”.

In all the sampled communities there is great enthusiasm about the power of basic literacy. Women said that they were able to read Class One books, which enabled them to supervise their children’s homework. They expressed disappointment that the program was discontinued and that the promise of solar panels and/or generators to facilitate evening and night classes was never fulfilled. The literacy training provided by the project had a significant impact on women’s self-confidence, decision-making, and community leadership.



**Women involved in literacy training at community literacy centres.**

**Box 3. Views about the adult literacy program**

*“I am the Imam in Baoma Dabeni and I can now spell my name, Ibrahim Kallon, and I can now take my receipts out of a number of receipts without help from anyone.”*

*“..... I was in level 4. I used to check my Children’s classes 1 and 2 exercise books. Now I want to continue, but the program has stopped.” (An adult woman in Baoma Dabeni)*

Women now plan their own development projects in the community, such as buying school uniforms for vulnerable children and making school buildings more usable during the rains by changing the roofs to corrugated iron sheets. An interlocutor commented that the assistance provided by these groups had increased enrolment and improved attendance, especially for orphans. However, there was no available data to support this statement at the time of the study.

**Box 4. A male and female voice in a Focus Group Discussion in Bumpeh Peri**

*“Women no longer depend on us; we depend on them.” - male participant*

*“I no longer look to my husband to feed my children and to send them to school. I can do it on my own, if need arises.” - female participant*

## *Improving livelihoods*

### **SATISFY improved access to finance for men and women with positive spillover effects**

The introduction of SGs in SATISFY communities is one of the best practices that has led to the most outstanding successes of the project. The provision of financial services at a community level by the program-facilitated SGs has had spill-over effects on other neighbouring communities where SGs did not initially exist. Other village communities have been co-opted into the SGs and serve as feeder groups to umbrella groups in Baoma Dabeni and Gbondapi. One such feeder group, the Galiness Peri Farmers and Savings Association in Kulaka, convened a meeting on the 25<sup>th</sup> of January, 2020.

As noted above, the project used SGs as the platform from which to introduce other interventions to communities. In addition, SGs are a safe platform for poor borrowers, saving them from usurious money lenders. Furthermore, they are sustainable and have shown that “pooling resources is a major avenue for women’s empowerment and social cohesion.” Indeed, women can now boast of plots of land they have harvested, labour they have paid for, contributions to community development programs, contributions to the vulnerable, and the creation of a system to allow elderly people to be part of the savings groups (share value is based on the lowest bid by the elderly and people with disabilities). This was done to make sure all are included in the community financial intermediation.

It should be noted that SATISFY was operating within WV’s long-term (15-year) program areas, and as such, even where the programs have ended over two years ago there are indications of sustainability with respect to SGs. Nearby communities are now calling on the program field staff to extend the SG facilities so that they also can participate and benefit from services. Overall, the communities are clear about the sustainability of the SGs and the growth of more groups. The people are convinced that this component will be sustained, as it has created avenues for entrepreneurial skills development. Community members are proud that they can now establish stores and own livestock and poultry because of the savings they are able to make. They are convinced that pooling savings is a far better mechanism for community development and finding a path out of poverty than using merchant money lenders with their exploitative interest rates and limitations in terms of amount that can be borrowed.

The communities have realized that with their own resources they can contribute to social development. For example, these communities have procured corrugated iron sheets (CI Sheets) to replace thatched roofs on schools, and others have bought and donated school uniforms to Mother Clubs for children whose parents cannot afford them. The SGs are helping families take care of their children’s school fees and other domestic expenses. Livestock rearing has led to improved sales and income generation as well as the consumption of animal-source foods at the household level. While efforts to link SGs with formal financial institutions in order to widen the possibility of access to more credit for hiring tractors and rice harvesters from the Ministry of Agriculture, Forestry and Food Security in Pujehun did not work well, overall, the SGs are still a success to community members.

SATISFY project participants (mostly women, and few men) spoke clearly about the value of promoting savings as a way of building social capital, trust, and charity, thus creating an avenue for more holistic and predictable livelihoods rather than living in uncertainty.

In sum, the SGs empowered women economically, most whom are the main providers in their households. These women can now boast of resources they have access to and types of food

they can now provide more easily for their children: eggs, beans, fish, meat, and chicken. Social cohesion has improved as a result of the SGs, and positive spillover effects were seen in terms of broader supports for the community, greater financial certainty, and interest from other communities in establishing their own SGs. Interdependence rather than dependence are the new features in these three communities.

**Box 5. What SATISFY has done for us**

*“We used to lay our best clothes [“Lappas”] on our heads, looking for a place to pawn [them], but all that is a thing of the past. 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.” - a participant in Bumpah Peri*

**SATISFY improved access to land for women**

Women owning plots of land for crop and livestock production is a new reality in these communities. Even with provisions under the Sierra Leone Land Reform for women to inherit family property, this was unheard of in Mende land. SATISFY was able to break that barrier by enticing chiefs to allow women to control parcels of land for planting and harvesting. SATISFY sought consent from chiefs and landowners in the communities to make abandoned farmlands/Bolilands (locally referred to as ‘Batii’) available for large-scale farming by women’s groups. The project highlighted the benefits such interventions would bring to women, men, youths, girls, and the community as a whole as well as indirectly benefitting nearby communities. In providing access to land, men and youths contributed labour to fell trees, brush and till the land for a fee. In order to include elderly members of these communities, at least one man from each household contributed on behalf of the elderly members of the households. Women’s groups now have access to farmlands for large-scale farming and own plots of land for planting. During the validation workshop, women boasted of the acres of land still under their cultivation. Cooperative group work has resulted in increased acreage of farms cultivated and harvested.

**Box 6. Access to land and power relations**

*“Before, we depended on our husbands, and so we faced lots of problems. However, now after SATISFY organized and trained us in agribusiness and we [were] given access to land, I have about seven acres under my control, and harvest only takes place when I give instructions. I can now determine the best time to sell my products.”*

There is still the possibility for the expansion of the lands by cultivating the Inland Valley Swamps (IVS). The IVS could be a community asset that could enhance the livelihoods of communities through, for example, vegetable production and marketing. They could also be used for aquaculture through the construction of fishponds that could be used to supplement household protein at the community level and reduce malnutrition in the communities.

**SATISFY improved access to agricultural inputs and provided training to improve agricultural practices**

SATISFY trained Farmer-Based Organizations in communities through partnership with the Ministry of Agriculture, Forestry, and Food Security, on improved crop husbandry practices and animal husbandry, with 10,985 beneficiaries trained on crop production techniques and 6,654 trained on animal husbandry, 40% of which were women. The project introduced fast maturing

crop varieties including the System of Rice Intensification (SRI) for rice production. The project supported groups with some inputs for planting and also trained the groups on making agriculture a business rather than a subsistence activity. The provision of a variety of seedlings for planting and the introduction of new techniques for planting rice improved and increased productivity, but marketing was poor. This method of planting rice, especially the New Africa Rice, was a great improvement on land use, planting larger areas with fewer seeds. The impact can be discerned from the voice of one participant.

**Box 7. Impact of new planting method adopted**

Perception of a Community Member

*“The Farmer Field School methodology (Systems of Rice Intensification) adopted will greatly increase our productivity. Before, one bushel (25kg) of IVS seed rice was only enough to plant one acre, but with the SRI method introduced by SATISFY we are able to plant one hectare (2.5 acres) with the same quantity of seeds. We now use a smaller quantity of seeds to plant larger acreages.”*

SATISFY also supported the sharing of ruminants<sup>4</sup> among the men and women. This practice has continued to date as it has served as a measure to mitigate risks, especially in cases of bereavement. In the recent validation meeting in Gbondapi, one of the men had this to say: “...the rearing of the ruminants is very helpful, because if you are a member of the cooperative rearing the ruminants you get a discount on buying. It reduced the burden to undertake the funeral rites of my father.” The women stressed it is an “easy source of income and protein for the household.”

The focus group discussions and key informant interview participants confirm that vegetable gardening is still ongoing, though challenges exist when it comes to rearing goats and pigs, such as a lack of continuous veterinary extension services and the prevalence of thieves. Additionally, most farming tools remain long and heavy and are more difficult for women to use than for men. A major challenge to the large-scale group farming is the lack of mechanization. Hiring a tractor involves a lengthy process, and many communities are clamoring for the use of the same tractor. It is also difficult to move certain machines, such as Fergussons and land tillers, around the district during the rainy season when some farmland is waterlogged.

**SATISFY led to value-creation and increased resilience to shocks for communities through sustainable agro-business development**

According to the participants in the focus group discussions, SATISFY was not only focused on rice production for home consumption, but also on undertaking agriculture as a business, particularly through large-scale farming targeting local community markets and other accessible markets in neighbouring towns. SATISFY taught the communities to think about agro-processing. Though the EVD disrupted sales of garri<sup>5</sup> processing from cassava, it allowed them to stock up emergency food.

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<sup>4</sup> Refers to a cud-chewing mammal.

<sup>5</sup> Garri a floury snack food, similar to semolina snacks.

According to the year four SATISFY project report, yields of rice in rehabilitated IVS increased from five bushels (125 kg/acre) to 36 bushels (900 kg/acre) with reduced quantities of seeds planted per acre from 25 kg to 6.25 kg/acre. Improved varieties are planted twice a year followed by vegetables, which contributed to an improved food security status and increased revenues for farmers. The increased productivity (anecdotal evidence) led to a positive impact for nearby villages not in the operational areas of SATISFY. For instance, increased rice productivity led to increased labour demand for harvesting which was not available locally. The Bumpeh community invited neighbours to take part in the bumper harvest for themselves and villages nearby. This benefitted the Bumpeh Perri community who supported with harvesting the farmlands of Bumpeh. SATISFY improved participation in local value chains overall. At baseline, 69.3% of women and 75.3% of men producers reported earning income through participation in sustainable value chain activities compared to 89.8% and 85.7% for women and men at project end, respectively.

The value-added component of the project did not fully achieve intended results as the EVD outbreak limited the movement of people after the cassava had been harvested and processed into garri. They were able to sell their product among themselves and neighbours, though at a lower price than would have been fetched in other markets. In addition, the state of the roads leading to Pujehun district are poor and limit access to other markets, including markets in nearby Liberia. Currently, a road connecting Sierra Leone and Liberia through Pujehun district has been commissioned, and feeder roads are being repaired which might benefit the producers in the district.

### **Overall, SATISFY empowered community members to take ownership over their own economic development**

One lesson learned is that one does not need a high-school diploma to be a community entrepreneur. What is needed is training in basic financial management and collaboration with committed like-minded members, as exhibited in Bumpeh Perri and Gbondapi. In all the three communities visited there is evidence of women entrepreneurs, established and emerging, because of the business orientation SATISFY provided for the communities and the realization that unity and cohesion can foster development. SATISFY distributed ruminants to communities, and this is still on-going even though ruminants are now being provided at a minimal cost. A common statement from focus group discussions was that “We now produce not just to eat but to sell the surplus in the market to generate income to solve our domestic problems.”

#### *Ensuring environmental sustainability and climate change resilience*

### **SATISFY promoted improved, environmentally sustainable land management practices**

Pujehun district lies within the coastal plains of Sierra Leone. Like most of the country, the district receives a lot of rain (2,500 – 3,000 mm/year), which leads to flooding and waterlogging of IVS (see Annex 4 for waterlogged area in Gbondapi), according to focus group participants. While the country is considered the most biodiverse in West Africa, the slash-and-burn practice of clearing land for farming has negatively affected natural resources, exposing soils to erosion and degradation. The project promoted a shift away from upland to IVS rice production, resulting in reduced deforestation using the traditional method of slash and burn.

At the start, the project explored, with community members, the existing traditional knowledge systems of land use practices, especially focusing on harmful ones. This resulted in recommendations for improvement, including the creation of Disaster Management Committees in each village, establishment of by-laws, construction of fire belts around grassland communities,

establishment of tree nurseries for fast-growing trees and planting trees in cleared and degraded areas. Trainings were facilitated for farmer and community-based organizations, local councils and chiefdoms authorities on Natural Resource Management (NRM) and on the impact of deforestation to the local environment and people's livelihoods. SATISFY promoted the application of environmental management practices during crop production, including water management and the use of improved farming practices such as the SRI. The latter minimizes the use of production inputs such as water, thereby reducing methane emissions. Nevertheless, the women participants in focus group discussions reported having problems fetching water during the dry season to water the vegetable gardens.

### **SATISFY promoted resilience to local natural disasters**

Communities were taught how to fight wildfires, which are a common natural disaster in the area. Focus group participants noted that they know about using sand to put out fires without water. They also indicated that they know the importance of how to grow nitrogen-fixing trees. They also know that they should explore building the bunds with concrete and good drainage, although this is expensive.

#### **Box 8. Perspectives of climate change resilience**

*"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, but we were not taught much about food preservation. However, we were taught to process cassava into garri."*

*Improving food security outcomes*

### **SATISFY supported improved nutritional outcomes**

SATISFY took a gendered approach to addressing health and nutrition. In addition to income-generating activities that provided women with the financial independence to support the nutritional needs of their families and households, the project undertook a number of efforts to improve nutrition. SATISFY supported the introduction of high nutrient foods and the direct training of women in food preparation for children at different stages of maturation. SATISFY sponsored training workshops for women on appropriate sanitary measures and food preparation for infants and children under five. These workshops were facilitated by nutritionists from the Ministry of Health and Sanitation. This was to ensure good health for mothers and children, hygiene, and household sanitation. Women in these three communities still remember what they learned in the workshops. "Health and sanitation were aspects added to the project to make sure we stay healthy and strong." The women also reported that the training they received in developing nutritious food mixtures for children has allowed them to help younger women of childbearing age to prepare special meals with the relevant ingredients in order to maintain balanced diets.

To improve household nutrition, SATISFY also supported the development of backyard vegetable gardens, the provision of fast maturing and improved seedlings, and the introduction of livestock and ruminants. Some were trained in poultry development, and others in breeding ruminants and rearing pigs. Community members were confident that malnutrition would be a thing of the past after the implementation of the project. It made it possible for families to eat meat, chicken, and eggs, and to raise income from livestock sales. However, women complained about losing their

herds to thieves because they could not provide good and secure sheds. Box 8 below is a reaction from one participant on the topic of nutrition and health.

**Box 9. A reaction to sanitation and nutrition teachings in Gbondapi Focus Group Discussion**

*“Before this time, we faced lots of problem with stunting and malnutrition in these communities. With the trainings from the SATISFY Project we have improved hygienic behaviours... The WASH program is continuing [to this day]. You will notice that our children no longer break palm nuts, and you cannot see a child here with kwashiorkor because we can provide the needed food nutrients for them now from our backyard gardens, ruminants, and poultry.”*

*Good practice in agricultural investments*

**SATISFY was grounded in local priorities**

As alluded to above, the study revealed that there were community consultations before the design and implementation of the project. This model offers a conflict-sensitive approach to development by building community cohesion and working to leave no one behind. The training component was an essential part of the project, and the placement of an intern in the community to live and work with the people added to the success of the project. Focus group discussions, interviews, and community meetings clearly indicate that the involvement of the community members in the project selection and implementation process increased stakeholder participation and ownership of SATISFY activities, which led to the long-term sustainability of the SGs. In addition, there were indications (see annex 4) that numerous stakeholder meetings with regular attendance, as well as consistent representation by stakeholders at SATISFY meetings, improved collaborative efforts and enhanced the Local Authorities’ understanding of the key objectives and outcomes of the project.

**Lessons learned**

- ***Agricultural projects can serve as useful entry points for building social cohesion in post-conflict settings.***

Building consensus through teamwork and team spirit in a community can lead to social cohesion and economic empowerment, as displayed in the implementation of the project within the SATISFY operational areas. SATISFY supported the formation of Farmer Based Organizations and provided training in creating agricultural businesses and pooling resources, thereby building confidence and trust and teaching members to care for each other.

**Box 10. Caring for each other**

*“After walking to the farm and back [for] days, I could no longer walk to the farm because of excruciating pains over my body. I became worried because I was no longer meaningfully contributing to the work on the farm. My group members visited me and told me to rest and take my medications and [assured me] of my membership with all the rights accorded every other member. I was assured that I will receive my appropriate share of any proceeds from the farm.”*

- ***Participatory planning and prior consent of communities encourages local ownership and a commitment to succeed.***

Involving men and women in planning and implementing projects within their communities can lead to a sense of ownership and a commitment to the success of a project. Getting the commitment of community members creates further enthusiasm for the success of a project, as exhibited by the attempts of groups to hire a tractor from the Ministry of Agriculture, Forestry, and Food Security (though tractors for large-scale farming were hard to come by, as noted). With improvement in local communication infrastructures, these groups are likely to improve in marketing of their products.

- ***Linking local financial intermediation with formal financial institutions cannot be easily achieved if program sponsors are not seen to commit funds for such a formal link.***

As noted, the project was unable to formalize linkages between SGs and formal financial institutions. Similar projects in the future should help establish formal linkages and address barriers that may undermine successful partnerships to improve access to finance.

- ***Awareness raising and sensitization programs are critical to working with men and women to improve gender equality outcomes.***

Sensitizing and involving men in initiatives that empower women can lead to improved household and community welfare. Recognizing the important role of chiefs and other key local partners towards realization of gender equality, SATISFY sought their support, commitment and cooperation while sensitizing and training men on the advantages of working alongside women as equal partners. By creating of an enabling environment for women to be active economic players, they would be better able to support men and their families.

- ***Establishing market linkages and business skills can facilitate higher productivity.***

The establishment of linkages between community-based organizations/entrepreneurs and other businesses can support productivity. The Lion Mountain Enterprise in Bo started purchasing the products of participant groups, but this did not continue. This should have created a ready market for groups which should have encouraged more production and perhaps better productivity.

- ***Appropriate technology use can also facilitate storage and reduce post-harvest losses in agriculture.***

It is possible to achieve increased food productivity, improved nutrition, and increased income generation without much sophistication, as shown by the SATISFY project. The project did not provide innovative technologies such as solar plates for drying floors, modern kilns for drying fish, and irrigation pumps. While the project saw success, the provision of storage facilities for the products would have increased agricultural productivity.

- ***Empowering women with the consent of their spouses is a good entry point in any community.***

In Mende culture, the process of gaining the consent of the husband when working with women is a good way of introducing new proposals from outside. SATISFY ensured the success and

sustainability of the project by seeking to include chiefs and key informants in setting up a project to empower women and improve the nutritional status of children. Three years after the project's completion, members of the three communities that participated in the study can still point to evidence of the project's impact.

- ***Agriculture is an important entry point for environmental sustainability and climate resilience.***

Improved varieties of seedlings and new techniques, such as the introduction of the New Africa Rice using the SRI, contributed to local efforts to improve environmental sustainability. These approaches will enable the communities to harvest three times in a year—almost five times more rice than previously harvested—and to save the excess harvest to use as a buffer during the rainy and flooding periods. Moreover, the techniques used by SATISFY reduce environmentally harmful practices such as clearing land through the slash and burn method.

## Recommendations

The study raises a number of recommendations for investments in agriculture.

- **Continue to invest in agriculture to respond to local needs, including investing in research to address the challenges faced by small-scale farmers and women, and ensuring community ownership.**

Properly investigating livelihood patterns and cultural settings, assessing the needs of communities beforehand, and creating avenues for community participation from the inception of the project are key elements of a successful agricultural project. Projects should be informed by gathering information on local gender dynamics and the vulnerabilities and needs of the communities. This should be done in consultation and with the consent of the communities.

- **Engage men and community leaders to ensure success in efforts to empower women.**

The SATISFY project engaged with men and community leaders to ensure their buy-in in efforts to promote gender equality. As a result of this, SATISFY was able to promote social cohesion in communities and empower women through financial independence, control over land, and access to leadership and decision making.

- **Explicitly link investments in agriculture to nutritional outcomes and identify opportunities to improve outcomes in other sectors.**

There is a need to highlight nutrition as a priority in agricultural investments by supporting women. SATISFY took explicit steps to increase women's capacity to take care of the nutritional needs of their children while empowering them to take leadership roles in their communities. In these roles, women were also able to prioritize issues that mattered to them, including improving educational outcomes for their children. The creation of the Social Fund served as an important tool for communities to link the positive outcomes of increased agricultural productivity to other community priorities.

- **Take a holistic approach to supporting women farmers and rural communities by addressing the range of barriers to increasing agricultural productivity.**

SATISFY showed the importance of coupling access to finance, land, and inputs with training and innovations in agricultural practice. While the project saw success in overall productivity, it also showed the importance of facilitating linkages between communities, businesses, and financial institutions to support growth ambitions, particularly as community groups sought markets and access to more costly production inputs such as tractors.

- **Funding for climate change adaptation should include a focus on supporting smallholder farmers with appropriate technology.**

Practical and traditional knowledge can be harnessed to mitigate the negative effects of climate change when appropriate irrigation techniques are not readily available. For example, improved varieties of seedlings and changes in planting periods in bolilands might mitigate the rainy season flooding that plagues the Pujehun district. Nevertheless, SATISFY did not introduce major technological innovations beyond the SRI system, innovations such as new irrigation systems or mechanisms to better store produce. Introducing these types of technologies could help communities to adapt to and be resilient in the face of climate change.

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## **ANNEX 1 - Locations, names of focal persons**

### **LOCATION 1: GBONDAPI**

1. Mrs. Fanta Touray
2. Ms. Rosemarie Saidu
3. Mr. Paul Mando

### **LOCATION 2: BAOMA DABENI**

1. Mr. Mohamed Sahr

### **LOCATION 3: BUMPEH PERRI**

2. Mrs. Gitta Massaquoi
3. Mr. Thomas Kekura

**ANNEX 2 - Types of data collection techniques and number of participants**

<b>Day</b>	<b>Venue</b>	<b>Type of Interview</b>	<b>Number of women/men</b>
<b>Monday, 21/10</b>	Gbondapi	Focus Group Discussion 1 (men and women)	10 (5 men, 5 women)
		3 Key Informant Interviews - (local partners)	3 (2 WVSL, 1 DAO)
		1 Key Informant Interview - (beneficiary-Chair Lady)	1 woman
<b>Tuesday, 22/10</b>	Baoma Dabeni	Focus Group Discussion 1 (men and women)	10 (4 men, 6 women)
		1 Key Informant Interview - (Beneficiaries)	1 man
<b>Wednesday, 23/10</b>	Bumpeh Peri	Focus Group Discussion 1 (men and women)	10 women
		2 Key Informant Interviews (Beneficiaries)	2 (1 man, 1 woman)
<b>TOTALS</b>		<b>3 Focus Group Discussions (9 men, 21 women)</b> <b>7 Key Informant Interviews (5 men, 2 women)</b>	

### ANNEX 3 - Pictures of events and an environmental challenge



Focus group discussion in Gbondapi



Environmental challenge: waterlogged area in Gbondapi, at the back of the piggery



An added component in the satisfy project - piggery



World Vision international staff member, research assistant Ms. Fatmata Ansumana (centre) and chair lady of Baoma Dabeni.



Focus Group Discussion in Baoma Dabeni

## ANNEX 4

**Table of project milestones and tombstone data**

<b>Timeframe</b>	<b>Key project activities</b>
April 24, 2012	Project start date
May 9, 2012	Agreement with Canadian partners (Agriteam and University of Guelph) outlining roles and responsibilities signed
May 14 - 18, 2012	Project start-up workshop in Dakar
April 26, 2012	Implementation agreement with WVSL signed
June 2012	Project launched in the six chiefdoms of Pujehun District
July 26, 2012	Project Steering Committee established and first meeting held
August 23, 2012	Program Implementation Plan submitted to GAC
November/December , 2012	Gender assessment and environmental impact assessment reports submitted to GAC
January 2013	Formation and training of first Savings Groups
February 2013	Initiation of crop and livestock training activities
March 2013	Support of groups in gari processing material and training
April 2013	Baseline assessment report submitted to GAC
May 2013	Beginning of training and support of women in vegetable production at community gardens
July 2013	Agriteam Tier 2 TOT mission to introduce participatory extension methodologies
August 2013	Training on networking and fundraising to support farm and non-farm activities
September, 2013	Participatory Community-based Vulnerabilities and Capacities Analysis (COVACA) on natural resource management and adapting to climate change
November 2013	Initiation of Agriteam's demand-driven Responsive Training Program
December 2013	Agriteam TOT on how to integrate very poor producers into the value chains
March 2014	Set-up of Agriteam's adult literacy training program
March 2014	Training of Environmental Management Committees on Natural Resources Management
April, 2014	First trainings and support of caregivers in improved nutrition
December 2014	Training of Trainers on the Agriculture As a Business approach by Engineers Without Borders as part of Agriteam's activities
February, 2015	Support of communities to elaborate strategies for the restoration and protection of natural resources
May 2015	Training of communities on Natural Resource Management
October 2015	Mid-term adapted desk evaluation completed and report submitted to GAC
October 5-9, 2015	Mid-term lessons learned workshop in Ghana
September 5-7, 2016	Final lessons learned workshop in Mali

**Source: SATISFY FINAL REPORT, 2017**