



## Impact of the Food Security Intervention through Kitchen Gardening and Poultry Rearing in Sierra Leone and Liberia



### Intervention

Liberia and Sierra Leone both emerged from the 90s conflicts that kept them off track on the delivery of most sustainable development goals (SDGs). The 2014 Ebola outbreak further contributed to widespread poverty in both countries.

To enhance the homestead food production of the poor households, BRAC followed an integrated approach. With the support of the Department for International Development (DIFD) through GPAF, BRAC Sierra Leone and Liberia implemented the project *Reducing hunger in rural areas* between 2012 and 2015 to elevate homestead food production, food security and wellbeing of rural landless women. It served 3,000 kitchen-gardening and 400 poultry-rearing farmers in six districts of Sierra Leone and 2,500 kitchen-gardening and 240 poultry-rearing farmers in six counties of Liberia.

Local agents of change - 400 *community agriculture promoters* (CAPs) and 400 *community livestock and poultry promoters* (CLPPs) - were selected and trained on improved farming and rearing practices to mentor and impart gained knowledge to *general farmers* (GFs) within their communities. They offered extension services and affordable high-quality inputs for a small profit margin. Village nutrition committees and awareness campaigns were organised to engage more villagers and sustain the improved practices.



### Research

*Impact Assessment of the Food Security Intervention through Kitchen Gardening and Poultry Rearing in Sierra Leone and Liberia* (Khakshi et al., 2015, Freetown and Monrovia: [BRAC IERC](#))



### Method

A *difference-in-differences* (DID) method with *mixed-methods tools* was used to assess the impact of the project on food security, socio-economic empowerment and production of farmers. A total 1,961 farmers were followed till the endline - 887 treatment farmers from five districts in Sierra Leone, 401 treatment farmers from four counties in Liberia and 673 farmers in the comparison groups. The comparison farmers were selected from the same counties and districts to ensure the similar agronomic and socio-economic characteristics of the treatment groups.



▲ **12 & 6**  
points FCS in  
Sierra Leone &  
Liberia

▲ **200**  
\$ annual  
income in Sierra  
Leone

▲ **260**  
\$ annual income  
in Liberia

▲ **22 & 30**  
pp fed on  
nutrient-rich  
home-grown  
food in Sierra  
Leone & Liberia

▲ **21 & 9**  
pp in Liberia &  
Sierra Leone felt  
empowered

The project significantly improved the food security situation of the treatment households as their food consumption score (FCS) increased by **12 and 6 points** on a 0-to-112-points scale in Sierra Leone and Liberia respectively. Similarly, they scored better than comparison farmers on the household food insecurity access scale (Sierra Leone by 1.19 and Liberia by 2.35 points).

Provisions of input supports and technical assistance significantly increased farmers' production and income. Because of surplus produce, farmers in both countries were able to sell agricultural products in local markets or shops more frequently. The annual agriculture and poultry income of treatment households in Sierra Leone increased to \$502 at endline, which was nearly **\$200** higher than in the comparison group. In Liberia, the income increased to \$626, which was **\$260** higher than of the comparison households.

Farmers were, however, less successful in building up assets with no significant gains, except for farming tools and livestock-keeping houses. This might have mainly because of the Ebola outbreak which affected their purchasing power and shifted their priorities towards basic needs.

The results were significantly improved in terms of nutrition as more than 75% of beneficiaries were able to indicate three aspects of nutrition, as opposed to less than 60% in the comparison groups. Nearly half of the children of 6 to 60 months were fed four or more food groups in a previous day, which was again higher than in the comparison groups. While **88%** of the treatment households in both countries were eating nutrient-rich home-grown food, this was respectively **66% and 58%** in the comparison groups in Sierra Leone and Liberia.

The villagers' engagement through the nutrition committee and their higher income seemingly helped them feel more empowered. About half of farmers in Sierra Leone and majority in Liberia were (senior) members or leaders of any local cooperative, committee or organisation, which was 6 percentage points (pp) and 17 pp higher than in comparison groups. As a result, **21 pp** of respondents in Sierra Leone and **9 pp** in Liberia felt more empowered in decision making at the household or community level as opposed to the comparison farmers.

## Way Forward

The project, through changing the perception and practices of women homestead farmers, significantly contributed to their food security and socio-economic wellbeing of the farmers. Since these results are based on the provisions of local extension services and technical support, they have a good potential to sustain in the long run. In fine, the roll out idea of the intervention through locally recruited intermediaries like CAPs and CLPPs proved to be relevant and efficient for an increased production of the smallholder farmers. Similar projects by BRAC Tanzania through GPAF scheme during the same time found significant impacts.