

## IERC Research BRIEF Evidence for Scale



Impact of Agricultural Supports for the Poor Households under PRO-ACT project in Liberia

Food insecurity in Liberia is a challenge. The dietary consumption of majority population is deficient and unbalanced. Households spend half of their income on food. However, the agriculture remains highly underdeveloped. The most of the poultry and livestock products are imported.

With the support of the European Union, BRAC Liberia implemented the *Pro-Resilience Action (PRO-ACT: Supporting the poor and food and nutrition insecure households to strengthen resilience in Liberia* project between 2016 and 2018. BRAC served 7,501 direct beneficiaries and 38,255 household members in Bomi, Bong, Grand Bassa, Grand Cape Mount, Margibi and Montserrado counties.



Intervention

The project served three related types of participants. The 5% of the project participants under cash-for-work (*CFW*) support was given to the most vulnerable households, along with livelihood and technical training, to engage them in crop cultivation and poultry rearing. The other 23% of poor households was trained on *poultry and livestock* rearing and given partial inputs support to kick start the production. Thirdly, the existing smallholder farmers were trained on *climate-smart agriculture* practices, provided partial input support and market linkages to buy inputs and sell products.

A group of entrepreneurs and market actors received training and facilitation to get links with the farmers. Education on nutrition and health-related issues was organised and local leaders were involved in those campaigns.



Research

Pro-Resilience Action – PRO-ACT 2015 programme: Endline report (Nansamba, 2018, Monrovia: <u>BRAC IERC</u>)



Method

The study applied difference-in-differences (DiD) method to estimate the impact of the project on farmers' food security, income, production and other effects. After the beneficiaries were selected by the project implementers, the research team used the same selection criteria to select the homogeneous comparison group. A panel data of 1,826 respondents (1,253 treatment) were analysed.



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▲ 2.8 points FCS

▲ 37 % monthly income from baseline

▲ **17**pp improved rice variety

▲ **4** exotic chicken

▲ 5
pp fed on home
produced pulse

▲ 8
pp fed on homeproduced fruits

**V 3** pp borrowed money from others

The project significantly improved the food security situation of the treatment farmers - they scored 37.2 on the food consumption score (FCS) scale from 0 to 112 at endline, making a positive impact of **2.8 points**. They were also significantly better off according to the household food insecurity access scale (HFIAS), scoring 6.7 at endline, which was 2.1 points less than of the comparison group. The results further show that food insecurity was even lower among the farmers assigned to BRAC extension workers. While only about half of the treatment farmers experienced a food crisis during the past year, as high as 70% of the comparison farmers faced food crisis. Perceptively, nearly half of the treatment farmers considered themselves food secure, as opposed to barely 40% of the comparison farmers.

The provisions of input support and technical assistance successfully increased agricultural production which, in turn, positively impacted farmers' income. Treatment farmers' **monthly income** increased by **37%** from the baseline which exceeded the initial target of 20% increase. This in DiD model is equivalent to an impact of monthly income LRD 562.

This increased income in the treatment group was largely driven by the intensification and diversification of production by the farmers. Treatment farmers produced significantly more improved variety of crops compared to the comparison group - **improved rice variety** (16% vs 9%), bio-fortified (16% vs 11%), colorful vegetables (24% vs 18%), and fruits (49% vs 40%). In terms of livestock rearing, nearly one-third of treatment farmers owned pigs and more than one-quarter owned exotic chicken, respective to 3% and 14% in the comparison groups. Treatment farmers owned on average **eight** exotic chickens while comparison farmers had only **four**.

These aggregate improvements built up the resilience of the farmers as fewer had to borrow money or migrate to increase their access to food. More than half (54%) were eating home-grown vegetables, 17% fed on home-produced pulse and 28% on fruits, which were at 51%, 12% and 20% respectively in the comparison group.

Practice of poor coping mechanisms (emergency) among households was captured less among the treatment group. For instance, only 14% and 6% among the beneficiaries borrow money from others and migrated to other places, contrary to 17% and 9% among the non-beneficiaries respectively

## Way Forward

The project significantly increased the production of food crops, poultry, and livestock providing farmers additional income and food security. This even reduced their poor copying mechanism. Handson capacity training and start-up input supports were very relevant for the smallholder farmers to make the results. However, similar interventions to be more effective in scale will simultaneously require focused facilitation for more enabling environment like land rights and market value chain for quality input supplies and sales of the produce.