

# Can Microplots Contribute to Rural Households' Food Security? Evaluation of a Gender-Sensitive Land Allocation Program in West Bengal, India

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**LANDESA SUPPORTS A MICRO-LAND OWNERSHIP PROGRAM FOR INDIA'S LANDLESS AGRICULTURAL LABORERS that strives to reduce poverty through improved homestead development in the state of West Bengal, India.**

The program works through the state government and local communities to purchase and allocate small plots of land; this includes the granting of land titles, with an emphasis on joint titling in households with married couples. The program also provides assistance with housing and basic inputs and capacity building in homestead food production and promotes local development through investment in infrastructure.

Despite India's rapid economic gains over the last two decades, as much as one third of its population lives on less than \$1.25 a day (purchasing power parity) (World Bank 2010). Moreover, a large part of its population continues to suffer from hunger and malnutrition despite the unprecedented availability of high-quality food products. In 2013, India was estimated to have the largest number of malnourished children in the world (India, Planning Commission 2013).

For many households, having secure access to a small plot of land on which to live, grow a vegetable garden, plant trees, raise livestock, and perhaps run a small business could mean stable access to more food and to a more nutritious diet. Many of the rural poor, however, work as agricultural laborers and have no land of their own. In total, some 20 million rural households are landless, even though agriculture is their main livelihood (Landesa 2011).

This study evaluates one Indian program designed to reduce poverty by providing land and land titles to those without them. The evaluation is the result of collaboration between Landesa, a nongovernmental organization focused on land legislation and programming among poor populations, and the Gender, Agriculture, and Assets Project (GAAP). The

research examines how land ownership and joint titling affect households' tenure security, agricultural investments, and food security and women's involvement in food and agricultural decisionmaking—outcomes that when enhanced are expected to lead to increased household food production and long-term food security.

## INTERVENTION AND STUDY SITE

West Bengal is widely recognized as one of the most progressive states in India in its commitment to giving land to agricultural laborers. Such "land-to-the-tiller" reforms are particularly urgent in this state, where the problem of hunger was rated as "alarming" by the International Food Policy Research Institute's 2008 India State Hunger Index. The state government addressed the hunger problem in 2006 by establishing a microplot allocation program to provide agricultural laborer households that are landless with a plot between 0.04 and 0.06 of a hectare in size for shelter and small-scale agriculture.

The Nijo Griha, Nijo Bhumi—"My Home, My Land"—program (NGNB), which is the immediate successor to a related homestead allocation program launched

in 2006 known as the Cultivation and Dwelling Plot Allotment Scheme, is based on the belief that a small plot of land, if of sufficient quality, can, with appropriate support, sustain a household by providing it with both shelter and a means to meet its basic food needs. These plots are expected to enhance households' ability to access government services, agricultural inputs, and financial resources, thereby enhancing income, reducing vulnerability, and improving food security.

Recognizing the pervasive additional constraints that women often face in accessing economic resources and the key role women can play in their households' well-being, the NGNB program gives priority to female-headed households and widows and explicitly stipulates that land titles issued to households with both male and female adults should be jointly titled to the primary male and female (West Bengal, Land & Land Reforms Department 2006). Landesa has provided technical support since 2009 to West Bengal's Land & Land Reforms Department in piloting changes to the NGNB program, identifying best practices, and scaling it up to reach 100,000 households.

## STUDY OBJECTIVES

Using mixed method data collected between 2010 and 2012, the resulting study assesses the NGNB's impact on outcomes such as households' tenure security and agricultural investments and women's involvement in food and agriculture decisionmaking.

## OVERVIEW OF METHODOLOGY AND DATA COLLECTION

The study is based on analysis of quantitative and qualitative data. Quantitative data was gathered from 1,373 households from three districts (Coochbehar, Bankura, and Jalpaiguri) that were surveyed twice, first in 2010 or 2011 to form a baseline and then again in 2012. The sample includes 803 beneficiary households that, at the time of the baseline survey, had received their homestead plots and obtained their land titles but had not yet moved to their new plots, plus 570 households that made it to the list of NGNB-eligible households but were not selected as beneficiaries of the program and can therefore act as a control group.

Qualitative information was purposely gathered in a single district—Coochbehar—to gain an in-depth perspective on a specific locality. This information was collected in 2012 by relying on three complementary tools: 12 key informant interviews with village-, block-, and district-level officials responsible for implementing the program; 11 life-history interviews with program beneficiaries; and 8 focus group discussions with beneficiaries and with eligible non-beneficiaries.

## RESULTS

Even after a relatively short period of time, the NGNB program shows very encouraging results: respondents perceive NGNB plots as more secure; NGNB beneficiary households are more likely to access credit for agriculture and to invest in agricultural improvements; and women in NGNB beneficiary households are more likely to participate in food and agricultural decisions. Some notable examples of these NGNB benefits are as follows:

- ▶ Women in NGNB-beneficiary households are 8 percent less likely to report being concerned about having to vacate their plots compared to women in non-NGNB households and 18 percent more likely to report that they expected their households to have retained access to and control over their plots five years later compared to women in non-NGNB households.
- ▶ The average NGNB household is 12 percent more likely than a non-NGNB household to report having taken out a loan from a formal bank since 2009 and 88 percent more likely to use a loan for agricultural purposes.
- ▶ During the year before the survey, NGNB households were 11 percent more likely to have used fertilizer or pesticides; 11 percent more likely to have used seedlings, seeds, or stems; and 7 percent more likely to have hired tools, machines, or other agricultural equipment than eligible households that did not become NGNB beneficiaries.
- ▶ Compared to their non-NGNB peers, women in NGNB households are 12 percent more likely to be involved in decisions to take loans from a Self-Help Group or microfinance institution, 12 percent more likely to be involved in decisions on whether to purchase productive assets; and 9 percent more likely to be involved in decisions related to purchasing and consuming food. Further, the share of the household land where they are involved in decisions on how to use the land, what to grow on it, and whether to sell produce from it increased by 15 percent, 14 percent, and 11 percent, respectively.

Two results are of particular relevance to those involved in designing, funding, and implementing land allocation programs. First, the tenure-security benefits associated with the NGNB program and the increased use of fertilizers, pesticides, seedlings, seeds, or stems by beneficiary households varies by plot size. On average, respondents perceived NGNB plots as more secure than non-NGNB plots; however, the perceived tenure security varies by plot size. While tenure security is nearly equal between NGNB and non-NGNB plots when plots are 0.004–0.008 hectares (or the Indian land unit of 1-2 decimals), NGNB beneficiaries who received plots of 0.04 hectares (or 10 decimals) can experi-

ence between a 10 percent and 30 percent improvement in their perceptions of tenure security. Similarly, our results predict a 10 percent increase in households' investments in fertilizers, pesticides, seedlings, seeds, or grafted stems if the NGNB plot is of 0.04 hectares in size but almost no increase for NGNB plots that are between 0.004–0.008 hectares in size.

Second, including women's names on the land titles has additional benefits for NGNB households: it significantly contributes to women's perceptions of increased tenure security and to women's involvement in food and agriculture decisionmaking. Tenure security outcomes improve up to 10 percent among beneficiaries when women's names are included on the land documents. Additionally, when their names are on the land titles, NGNB-beneficiary women are 14 percent, 15 percent, and 13 percent more likely to participate in decisions about taking loans, purchasing productive assets, and purchasing and consuming food, respectively. Finally, NGNB women with land documents under their names have a say over a larger share of their households' land when it comes to decisions on how to use the land, what to grow on it, and whether or not to sell the produce from it.

Despite NGNB's noteworthy impact on outcomes that can contribute to future food security, we cannot identify statistically significant NGNB effects on households' current food security. On average, NGNB-eligible households are just as likely to be food secure regardless of whether they became program beneficiaries. We repeated the analysis to explore whether the program had an effect on the diversity of their diet, their consumption of proteins, and how food was allocated within the household. However, there was no statistical difference in any of these cases.

These results can be explained in two ways. First, the qualitative research highlighted that the plots allocated under the program were often of marginal quality, so many beneficiaries recounted the need to amend their soil and infill and level their new plots before the yard was cultivable. Second, not enough beneficiary households had moved to their new plots: NGNB's expected effects are predicated on households relocating to the plot and cultivating a backyard garden; however, only 25 percent of the beneficiaries in the survey sample had moved.



Diana Fletschner/Landesa

## CONCLUSION AND POLICY IMPLICATIONS

The study findings suggest the following conclusions:

1. Homestead development programs can lay the foundation for long-term food security.
2. While microplots can enhance livelihoods, their potential benefits increase with the size of the plot and might be negligible if the plots are too small.
3. Beneficiaries' own investments in agriculture show significant upward trends as plot size increases.
4. Including women's names on the land documents can have the additional impact of improving women's tenure security and their ability to influence household decisions.
5. Homestead development programs should proactively address concurrent financial constraints or lack of available housing to enable households to fully benefit from and leverage the allocated plots.

As public and civil society actors in India continue to grapple with food security challenges, they must recognize and embrace the fact that these problems are complex and that addressing them requires integrated gender-sensitive approaches that, at a minimum, combine stronger land rights with adequate access to financial services, housing, extension services, and infrastructure support. A one-time, integrated, and well-executed homestead allocation and development program can lay the foundation for household and individual food security.

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## FOR FURTHER READING

Santos, F., D. Fletschner, V. Savath, and A. Peterman. 2013. *Can Microplots Contribute to Rural Households' Food Security? Evaluation of a Gender-Sensitive Land Allocation Program in West Bengal, India*. IFPRI Discussion Paper. Washington, DC: International Food Policy Research Institute, forthcoming.

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**The Gender, Agriculture, and Assets Project (GAAP)** aims to promote women's ownership and control of productive assets in developing countries by evaluating how well agricultural development projects improve men's and women's access to assets and identifying ways to reduce gender gaps. GAAP is jointly led by the International Food Policy Research Institute and the International Livestock Research Institute and receives funding from the Bill & Melinda Gates Foundation for 2010–2014. For further information on GAAP, see [gaap.ifpri.info](http://gaap.ifpri.info).

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