Researchers

Andrew Dillon
Northwestern University

Jennifer Blesh
University of Michigan

Andrew Jones
University of Michigan

Jérôme Somé
University of Michigan

Staff

Adrien Pawlik
Research Coordinator

Issa Kiemtoré
Research Associate

Timeline
2016-2017

Sample Size
1,050 households

Research Implemented by IPA
Yes

Understanding How Agricultural Livelihoods Affect Nutrition in Burkina Faso

Abstract

The agricultural sector in Sub-Saharan Africa has been changing in recent years, with more farmers living near urban areas, selling more of their crops for income, and also engaging in more off-farm work and non-agricultural activities to supplement farm revenue. However, little evidence exists thus far on how these trends are affecting nutrition, especially that of the most vulnerable members of farming families—women and children. It is also unclear which data collection methods can reliably capture how agricultural livelihoods impact diet and nutrition. In Burkina Faso, Innovations for Poverty Action is working with researchers to contribute evidence to help fill both of these gaps.

Policy Issue

The great majority of poor people in Sub-Saharan Africa work as farmers. In recent years, the agricultural sector in the region has been changing, with more farmers living in and closer to urban areas, selling more of their crops for income (rather than only subsisting off them), and also engaging in more off-farm work and non-agricultural activities to supplement farm

revenue. Together, these trends have led to diversified livelihoods for smallholder farmers. However, little evidence exists thus far on how these trends are affecting nutrition, especially that of the most vulnerable members of farming families—women and children. Even more fundamentally, researchers lack reliable methods for measuring how agricultural livelihoods impact diet and nutrition. This research aims to contribute evidence to help fill both of these gaps.

Context of the Evaluation

Burkina Faso's population relies heavily on small-scale farming, and undernutrition is a chronic challenge in the country, particularly in the semi-arid north. Yet the country is far from homogenous, with large variations in the agro-ecological zones from north to south and a diversity of farming livelihoods and strategies of production. There is also a unique gender dynamic around agricultural production in which women and men often manage separate plots. Taken together, these attributes make Burkina Faso an ideal location for this research. The study is taking place in 8 regions across the country.

Details of the Intervention

Innovations for Poverty Action is working with researchers to examine correlations between farming livelihoods and the nutritional status of children and also conducting a randomized evaluation to identify the most reliable and efficient way to measure farming livelihoods and their impacts on diet and nutrition.

The first part of this research consists of analyzing publicly available survey data to examine four domains of farmer livelihoods that will contribute to identifying livelihood patterns:

1. Diversity of farm production.
2. Access to land, labor and production inputs.
3. Proportion of household income from farm, off-farm, and non-farm activities.
4. Gender-specific control of agricultural income and decision-making.

The objective is to understand how these patterns are linked, if at all, to the quality and diversity of farming households' diets and the nutritional status of young children.

The second part of this study is a randomized evaluation that tests three different methods of data collection, comparing a comprehensive, time-intensive survey to a less comprehensive version, and an ever simpler, rapid diagnostic tool. With this evaluation, researchers want to understand how the method of data collection can create a bias in assessing livelihood patterns of farmers.

In all 12 rural regions of Burkina Faso, researchers will randomly assign five villages of one province to the study. Within each village, 30 households who are involved in agricultural activities and have at least one child age 24 to 59 months will be randomly assigned to one of the following three groups:

Comprehensive survey: Households will be administered a comprehensive questionnaire that collects detailed, plot level data on land area, crops raised and harvested, labor and productive inputs applied, use of crops post-harvest, earnings from agriculture and other sources, as well as control of management decisions and income derived from productive activities. These plot-level data will be collected at an individual level from the household member that manages each plot.

Simplified survey: Households will be administered a simplified version of the comprehensive survey described above. Questionnaire items will not be designed to collect plot-level agricultural data, but rather will directly collect aggregate production data, by farmer, regarding total cultivated land, crop yields, input use, and earnings from agriculture as well as other sources. Similar to the comprehensive survey, these data will be collected at the individual level from the household member that manages each plot.

Rapid survey: Households will be administered a more rapid, diagnostic version of the survey. This survey will collect aggregate data on the agricultural livelihood activities described above from the household member most knowledgeable about agricultural activities in the household. Thus, this approach will neither collect plot-level information nor data from the individuals that manage each plot.

In addition to collecting data on agricultural production and livelihoods using the randomly assigned survey design approaches, researchers will also collect standard household- and individual-level data in the same manner across all households involved in the survey. These include sociodemographic data, as well as dietary and anthropometric data.

Results and Policy Lessons

Results forthcoming.

September 02, 2016