

**GENDER, CLIMATE CHANGE, AND NUTRITION INTEGRATION INITIATIVE (GCAN)  
NEWSLETTER | March 2018**

**New Ghana harmonized Feed-the-Future dataset available!**

As part of its ongoing efforts to facilitate the use of Feed-the-Future Open Agriculture and Nutrition Datasets, the GCAN team harmonized and standardized data for Ghana's 2012 Feed-the-Future Baseline Household Survey. The Ghana 2012 survey covers the Ghana Feed-the-Future Zone of Influence, including the three northernmost regions of Ghana (Upper West, Upper East, and Northern Region), as well as parts of the Brong Ahafo Region. The sample, identified via a two-stage probability sampling approach, included 20 households from each of 230 selected enumeration areas (EAs). Due to nonresponse and logistic challenges, the interviewed sample covered 4410 households across 229 EAs.

This dataset connects four key food security-relevant domains (climate, agriculture, nutrition, and gender), with the objective to make household-level data more accessible and interoperable with other databases, and in particular with spatially-explicit, biophysical data layers. With these data, users can more easily address policy-relevant questions incorporating both biophysical and socioeconomic indicators. This is the second release of its kind for the GCAN team, following the release of [Bangladesh harmonized data](#) in October 2017.

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**GCAN policy notes now available in French**

**GCAN Framework**

The GCAN framework serves as a tool to help better understand the linkages among climate, gender, and nutrition at multiple scales and over different time horizons. The framework also serves to identify entry points for policies, technologies and institutions that enhance synergies and reduce tradeoffs across the three development goals of nutrition, women's empowerment and resilience that all form part of the 2016 Global Food Security Act.

Le cadre conceptuel GCAN est un outil pour l'intégration des dimensions de genre, de changement climatique et de nutrition. Ce cadre peut être utilisé pour déceler les déficits de recherche et de preuves et mettre en exergue les angles d'attaque des programmes et projets qui visent à influencer les résultats,

**Climate Change and Nutrition Linkages**

The intersection of climate change, food security, and nutrition is critical given growing adverse climate change impacts that threaten food security and nutrition outcomes, especially for the most vulnerable in the global South. A food systems approach can be used to analyze the bidirectional relationships between climate change and food and nutrition along the entire food value chain.

L'intersection du changement climatique, de la sécurité alimentaire et de la nutrition est capitale en ce sens que les effets pernicieux croissants du changement climatique menacent la sécurité alimentaire et les résultats nutritionnels, en particulier chez les populations les plus vulnérables de l'hémisphère sud. Une approche des

notamment en matière de résilience, de nutrition ou d'autonomisation des femmes.

[Available here](#)

systèmes alimentaires peut être utilisé pour analyser les liens entre les changements climatiques et la nutrition tout au long de la chaîne de valeur alimentaire.

[Available here](#)

## New Policy Note and Discussion Paper

### Overcoming gender gaps in rural mechanization: Lessons from reaper-harvester service provision in Bangladesh

Custom hiring of labor- and cost-saving agricultural machinery services is increasingly common in South Asia. We studied the gendered differences in women's and men's involvement in emerging markets for reaper-harvester machinery services in the Feed-the-Future Zone in Bangladesh. We find that women benefit from managing and sometimes owning machinery services, as well as from the direct and indirect consequences of hiring such services to harvest their crops. However, a number of technical, economic, and cultural barriers constrain women's full participation in these benefits. The brief, jointly developed with the [CSISA program](#), provides suggestions for initiatives promoting rural machinery services to more fully engage women, as business owners and users of machinery, to expand the benefits of these markets, with relevance for South Asia and other farming geographies dominated by smallholders.



[Read more](#)

### Using Natural Areas and Empowering Women to Buffer Food Security and Nutrition from Climate Shocks: Evidence from Ghana, Zambia, and Bangladesh

In this study, Matthew Cooper, uses data from Feed-the-Future datasets from Bangladesh, Ghana and Zambia to examine the impact of precipitation extremes on food security as well as the role of natural land cover and women's empowerment in creating resilience.

The results suggest that there is a strong association between extreme precipitation and hunger. Further, in certain contexts land cover types providing ecosystem services can reduce household hunger scores. Empowering women can mitigate the adverse effects of precipitation shocks. Finally, there may be an interactive effect between ecosystem service availability and women's empowerment.

This is the first paper from one of our student challenge winners, Matthew Cooper, who were selected as part of a larger competition to explore issues related to the intersection of climate, gender and nutrition using Feed-the-Future datasets (see also the September/2017 GCAN [newsletter](#))

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## Announcing a new IFPRI-wide initiative: The Knowledge Lab on Climate Resilient Food Systems

Building on the successful experience acquired by the team of researchers working for the GCAN project, the International Food Policy Research Institute is in the process of creating The Knowledge Lab on Climate Resilient Food Systems.

Climate change is affecting many aspects of life on earth. One of the most profoundly affected areas is our food system, ranging from agricultural production through storage, processing, marketing and consumption with potentially large adverse impacts on health and nutrition. Given these widespread effects, systemic responses with appropriate combinations of technical, institutional, and policy options are required

The overall objective of the Knowledge Lab is to generate evidence and actionable insights into resilience-building approaches that combine technological innovation with institutional and policy solutions emerging from financial markets, community organizations, and the private sector.

IFPRI's experience working with markets, gender, climate change and nutrition and its extensive network of collaborations offers an unrivaled opportunity to partner with national and international research centers, local institutions and civil society organizations to address these issues comprehensively with novel methods.

More information regarding the initiative can be found [here](#).

Achieving the goals of the Feed-the-Future Program and the [Global Food Security Strategy](#) requires careful consideration of the impact of climate on agricultural production and livelihoods, while at the same time considering other cross-cutting issues that influence agricultural growth, poverty alleviation and resilience, especially gender and nutrition. To address these challenges the Gender, Climate Change and Nutrition Integration Initiative (GCAN) works with USAID headquarters, field missions, and partners to enhance understanding of the linkages between climate, gender, and nutrition for increased resilience, women's empowerment and improved nutrition.

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