



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

## GENDER, CLIMATE CHANGE, AND NUTRITION INTEGRATION INITIATIVE (GCAN) NEWSLETTER | July/August 2018

### Upcoming GCAN Events

#### IFPRI to present at the International Conference on Agricultural GHG Emissions and Food Security – Connecting Research to Policy and Practice

Alex De Pinto will present new work on Climate Smart Agriculture (CSA) at the International Conference on Agricultural GHG Emissions and Food Security that will take place in Berlin on September 10-13 (<https://www.agrihq-2018.org/>) and features the Who is Who on agricultural mitigation. Considerable resources have been mobilized to promote CSA globally, but researchers have not quantified the potential effects of its widespread adoption. The work presented provides a first assessment of the global benefits of the CSA approach, some of its limits and unintended effects. Results indicate that important increases in productivity are possible but modest effects on GHG emission are likely. A link to the presentation will be available in the September GCAN newsletter!

### Recent GCAN Products

#### Global Food Security | Promoting Adolescent Nutrition Through Agricultural Programs

A better understanding of the pathways linking climate change and nutrition is critical for developing effective interventions to ensure the world's population has access to sufficient, safe, and nutritious food. In a [new paper](#), published in [Global Food Security](#), Jessica Fanzo, Claire Davis, Rebecca McLaren, and Jowel Choufani use a food systems approach to analyze the bidirectional relationships between climate change and food and nutrition along the entire food supply chain. They identify adaptation and mitigation interventions for each step of the food supply chain to move toward a more climate-smart, nutrition-sensitive food system and emphasize many potential entry points for “double duty” actions that address climate adaptation and nutrition if implemented and scaled by governments. The paper is based on an earlier [Discussion Paper](#) with the same focus.

#### AgriLinks | Promoting Adolescent Nutrition Through Agricultural Programs

Adolescence is a critical window for interventions to influence long-term health outcomes, including the health of women during pregnancy, which in turn affects the health of future generations. In a [new blog](#) on [AgriLinks](#), GCAN team members Sophie Theis and Jowel Choufani discuss the importance of including adolescent nutrition in nutrition-sensitive agricultural interventions. They argue that, by refocusing activities and measuring implications

for adolescents, programs can help to maximize their positive impacts and mitigate possible risks for adolescent health and nutrition. Several potential strategies are suggested for achieving these goals and extending the benefits of integrated agriculture-nutrition programs to adolescents, including:

- Discuss and model equitable gender norms
- Expand the scope of adults' nutrition education to reinforce the importance of adolescent health and nutrition
- Extend nutrition education to adolescents
- Leverage economic alternatives to mitigate risk; and
- Strengthen adolescents' economic agency to enable them to exercise choice

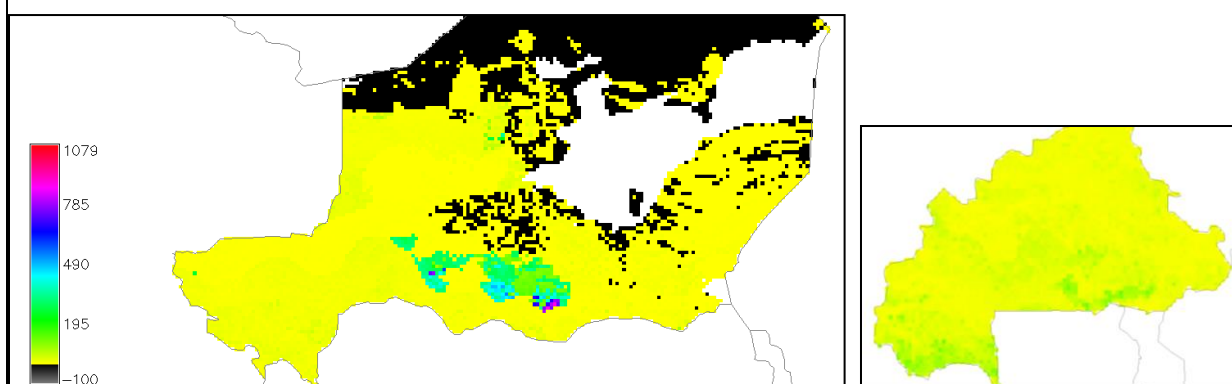
Multi-sectoral livelihood programs can have a powerful influence on the enabling environment for adolescent nutrition and health. Investments in the health and nutrition for this age group, and especially for adolescent girls, will pay off over their lifetimes and future generations.

## Update on Work-in-Progress

### GCAN Team Working with University of Florida to Develop and Employ a New Aflatoxin Model in Feed-the-Future Countries

For the past 6 months, the GCAN team at IFPRI has been working with a team from University of Florida to develop an aflatoxin model that can be run as part of the Decision Support System for Agrotechnology Transfer (DSSAT) crop modeling suite, updating earlier model code. Results were then applied by IFPRI to five Feed-the-Future countries—Burkina Faso, Guatemala, Honduras, Nepal and Niger with a focus on the probable aflatoxin concentration for every 5-arc minute pixel in each country. Figure 1 presents preliminary results for Burkina Faso and Niger, where groundnut is more common.

*Figure 1. Aflatoxin concentration (ppb) in groundnut, average of 1960-1990 DSSAT simulations for Niger (left) and Burkina Faso (right).*



Note: Areas in black (-100) indicate where groundnut cannot be grown. Country sizes are not to scale. In the US, the critical level is 20ppb for cereals. See also [http://gcan.ifpri.info/files/2018/07/GCAN-Aflatoxins\\_Note-9\\_web.pdf](http://gcan.ifpri.info/files/2018/07/GCAN-Aflatoxins_Note-9_web.pdf)

Following further testing, the results will be presented at USAID in early October. Additionally, the beta version of the maize aflatoxin model has been completed and is currently undergoing

testing by the GCAN team at IFPRI. By the end of the year we expect that both models will be fully functional and ready for use by not just IFPRI and University of Florida, but all DSSAT modelers as a global public good.

While the initial goal is to compute how climate change will likely change the aflatoxin concentrations, it is hoped that DSSAT might one day soon be used to identify potential aflatoxin hotspots based on actual weather each year.

## New Data on Gender and Climate Change

In July 2018, IFPRI published four datasets on gender and climate change that were developed under the project '[Increasing Women's Resilience to Confront Climate Change](#)' which was supported by the CGIAR Research Program on Climate Change, Agriculture and Food Security ([CCAFS](#)) to address the following questions:

- How do men and women perceive climate change and, particularly, the livelihood risks associated with climate change?
- What are the gender disparities in access to and control over assets and how and to what degree does the disparity in assets affect how men and women experience climate shocks and change?
- How and to what degree does asset disparity determine how men and women respond to climate shocks and change?
- Which coping strategies and adaptation options are favored by women and men, respectively, and why?

The datasets can be downloaded from IFPRI dataverse using the following links.

1. [IFPRI-CCAFS Gender and Climate Change Survey Data: Rakai, Uganda](#)
2. [IFPRI-CCAFS Gender and Climate Change Survey Data: Nyando, Kenya](#)
3. [IFPRI-CCAFS Gender and Climate Change Survey Data: Wote, Kenya](#)
4. [IFPRI-CCAFS Gender and Climate Change Survey Data: Kaffrine, Senegal](#)

Additional information on the datasets can be found in the accompanying [data paper](#).



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