



FEED THE FUTURE

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

FTF DATA HARMONIZATION

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IFPRI

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RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



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GCAN IN A NUTSHELL

- **Objective:** Support FTF focus countries to understand and use climate and household data for climate-smart agriculture (CSA) programming that integrates nutrition and gender, in alignment with new Global Food Security Act
- **Activities include:**
 1. Framework and tools for understanding the connections between climate change (specifically CSA), gender, and nutrition.
 2. Research and knowledge management to help answer missions' priority questions related to climate, gender, and nutrition
 3. Enhanced use of Feed the Future Open Datasets



FTF OPEN DATASETS

- Population Based Surveys for 11 FTF countries publicly available on the USAID Development Data Library:
 - Bangladesh*
 - Ethiopia
 - Ghana
 - Malawi*
 - Mozambique
 - Nepal*
 - Kenya
 - Rwanda*
 - Tajikistan
 - Uganda*
 - Zambia*

*Baseline and follow-up available





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CURRENT AND FUTURE HARMONIZATION

Bangladesh BIHS 2011-2 and 2015: <https://doi.org/10.7910/DVN/PUK1P7>

Number of downloads: 2,292

Ghana PBS 2012: <https://doi.org/10.7910/DVN/DXMARV>

Number of downloads: 451

Zambia RALS 2012 and 2015: *not yet shareable*

Guatemala WHIP 2013 and 2015: *aggregated indicators only*

Senegal 2012-3 FTF: *covers only a portion of the ZOI, data lost due to transmission error*

Nepal & Kenya: *ongoing efforts to access GPS info (even offset)*



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STANDARDIZED VARIABLES GENERATED

1. *Identifiers* (10): year, country, region, district, offset GPS coordinates,...
2. *Socio-demographic* (21): marital status, head's gender/age, education,...
3. *Agriculture, land and infrastructure* (40): land owned, livestock by type, agr. and non-agric. assets, dwelling conditions, travel time and distance to services
4. *WEAI* (23): 10 indicators (5 domains) and 5DE per sex, gender parity gap
5. *Child anthropometrics* (11): z-score of stunting, wasting, underweight,...
6. *Food consumption/dietary diversity* (18): food consumption score, DDS,...
7. *Household hunger score* (4): HHS and its components
8. *Weather-related* (203): temperature, rainfall, soil characteristics, travel time NDVI,...



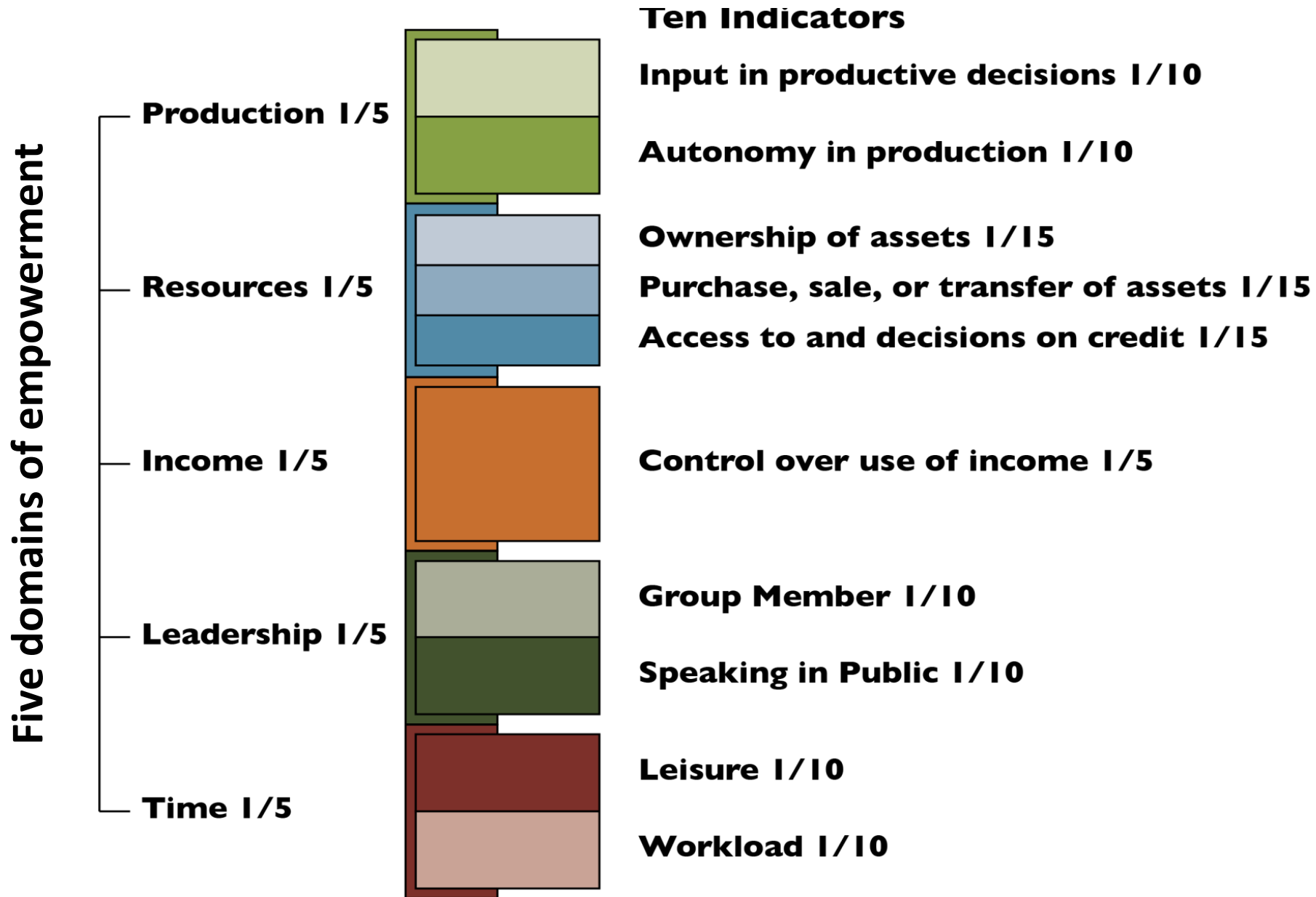


PURPOSE OF THE WEAI (WOMEN'S EMPOWERMENT IN AGRICULTURE INDEX)

- Design, develop, and test an index to measure the greater **inclusion of women** in agricultural sector growth that has occurred as a result of US Government intervention under the Feed the Future (FTF) Initiative



A WOMAN'S EMPOWERMENT SCORE SHOWS HER OWN ACHIEVEMENTS





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DATATHON



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CCAFS





DATATHON

Why?

Key challenges still exist in accessing and processing raw FTF data, reconciling them to make interoperable with other data, and documenting them to help data users correctly interpret and further analyze the findings.

Objectives

1. Increase public awareness and use of FTF datasets in agricultural research and development
2. Use of FTF data in conjunction with spatially-explicit datasets to inform policy decisions and monitor impacts



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2017: DATATHONS IN DC AND DHAKA

Data: Harmonized Bangladesh data (BIHS 2011 and 2015) across four key food security-relevant domains (climate, agriculture, nutrition, and gender)

Participation: About 90 in DC and 30 in Dhaka

Topics

1. Historical trends of climate shocks and their impacts on the livelihoods of female farmers and their empowerment in agriculture
2. Spatial representation and historical dynamics of gender inequality in agriculture
3. Relationships between WEAI and nutritional outcomes



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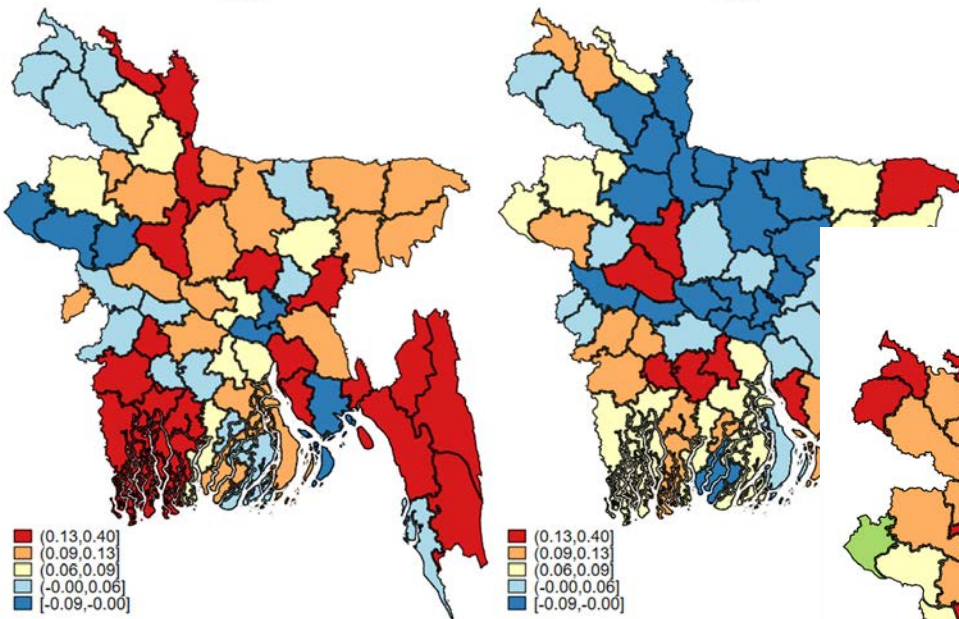
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SOME EXAMPLES: #1 WOMEN'S EMPOWERMENT IN BANGLADESH

Average gender parity gap

2011

2015

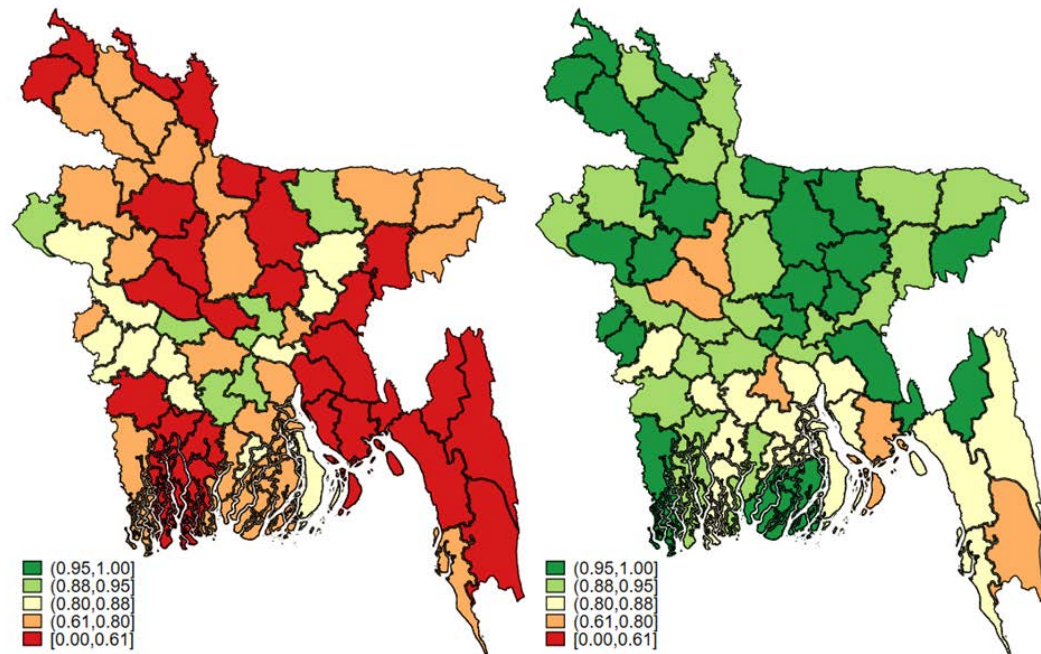


Improved due to higher input into productive decisions?

Share of women with input into productive decisions

2011

2015



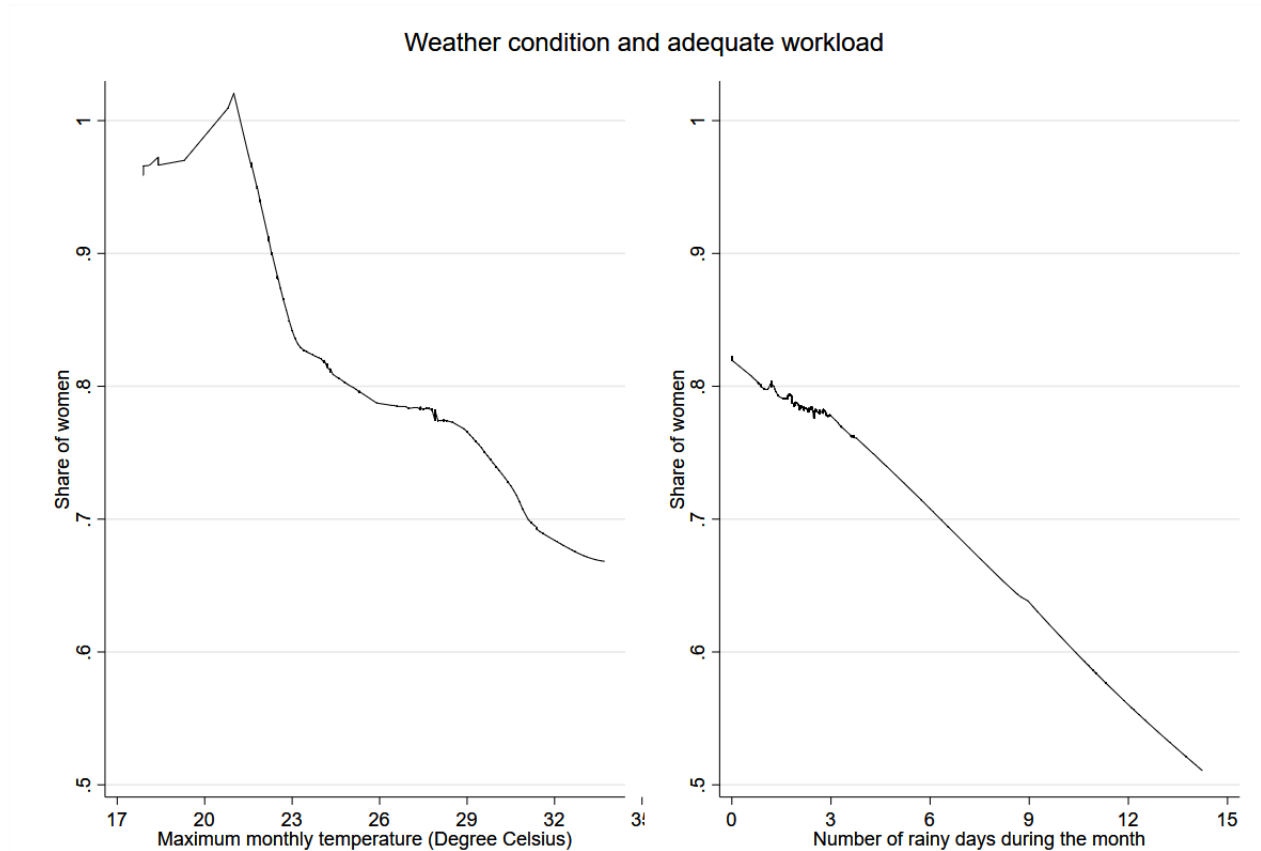
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SOME EXAMPLES: #2 CLIMATE AND GENDER IN BANGLADESH



Source: BIHS

HIGHER TEMPERATURE, LOWER GENDER PARITY

HIGHER RAINFALL, HIGHER GENDER PARITY



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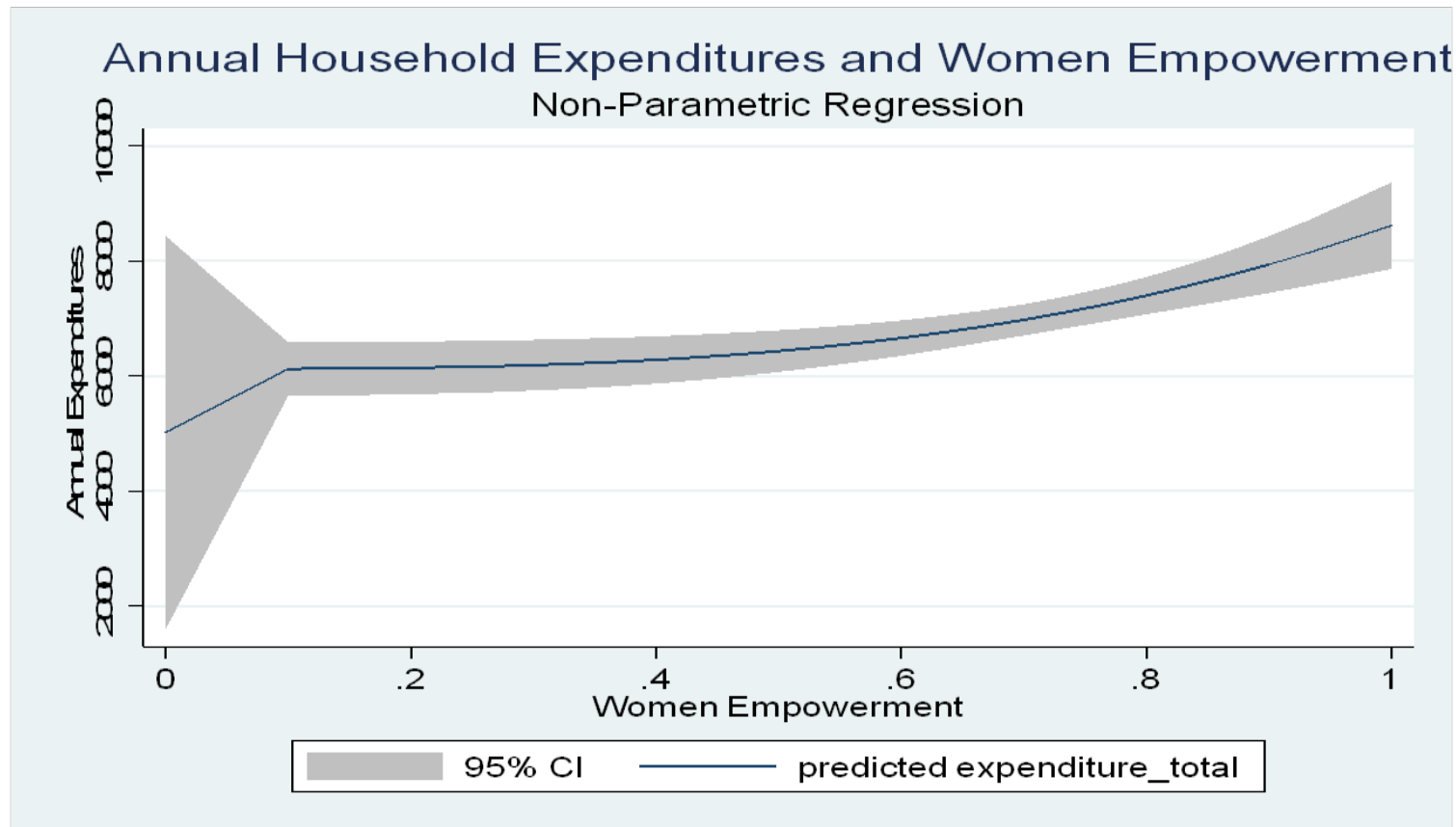
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SOME EXAMPLES: #3 WOMEN'S EMPOWERMENT IN GHANA



HIGHER WOMEN EMPOWERMENT, HIGHER WELFARE



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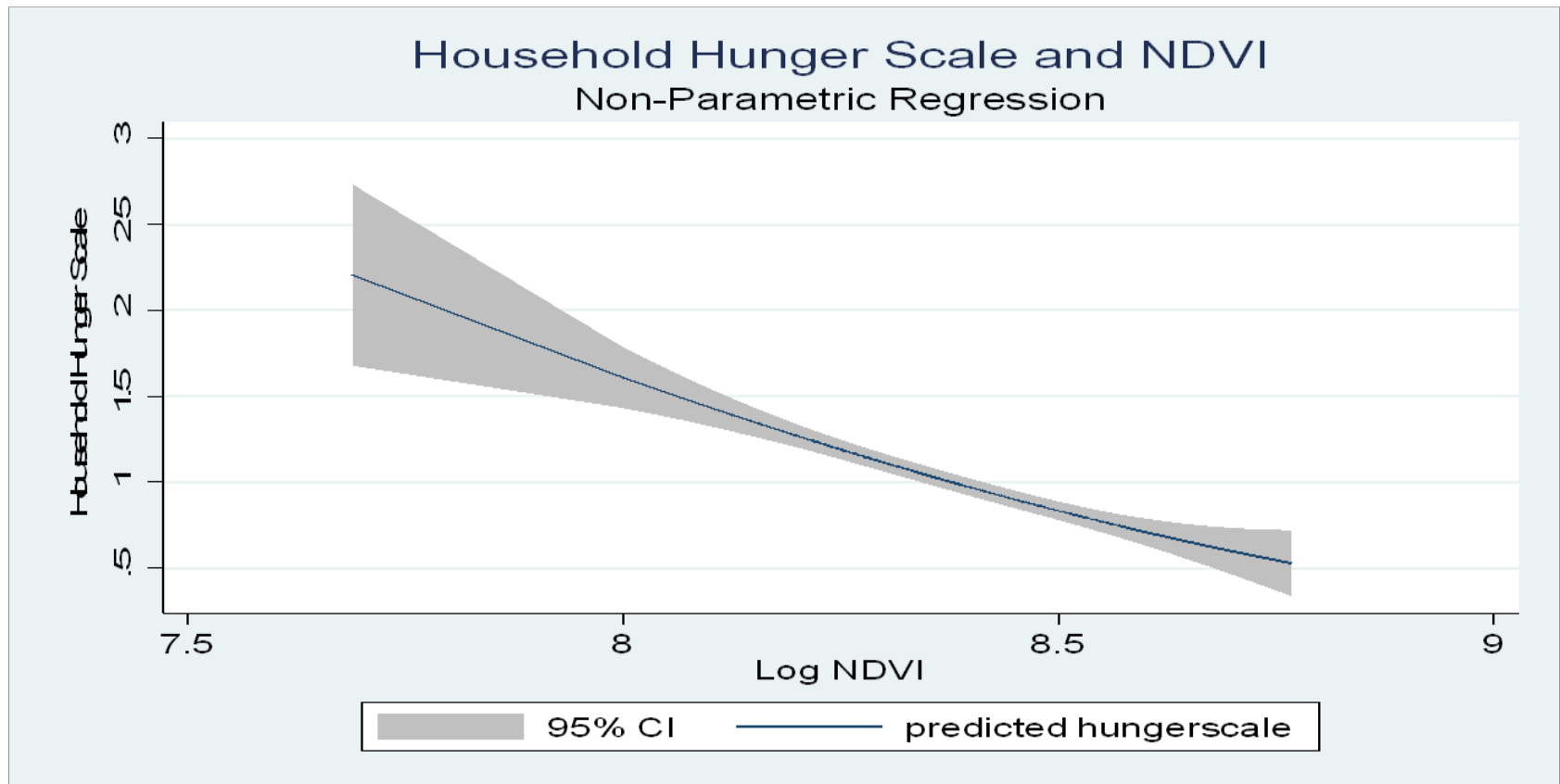
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SOME EXAMPLES: #4 HOUSEHOLD HUNGER IN GHANA



HIGHER SOIL CARBON AND NDVI, LOWER HOUSEHOLD HUNGER



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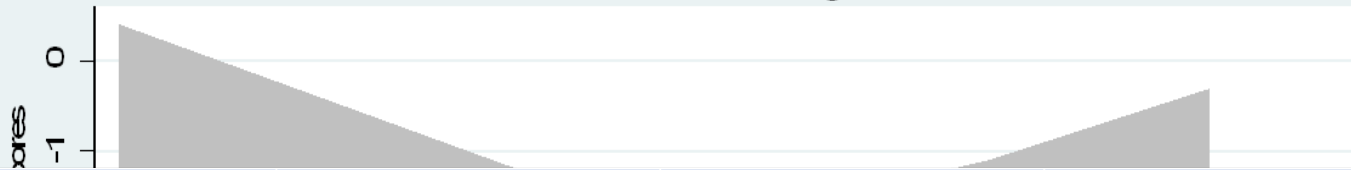


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SOME EXAMPLES: #5 CHILD ANTHROPOMETRICS IN ZAMBIA

Height for age Z-Scores and Soil carbon
Non-Parametric Regression



	height for Age Z-Scores	height for Age Z-Scores	height for Age Z-Scores
	All Sample	Boys Sub-Sample	Girls Sub-Sample
Log Soil Carbon	1.02** (0.492)	0.89** (0.429)	1.06* (0.564)
Child Covariates	Yes	Yes	Yes
Household Covariates	Yes	Yes	Yes
Community Covariates	Yes	Yes	Yes
N	620	335	285

HIGHER SOIL CARBON, BETTER CHILD NUTRITION...
ESPECIALLY FOR GIRLS



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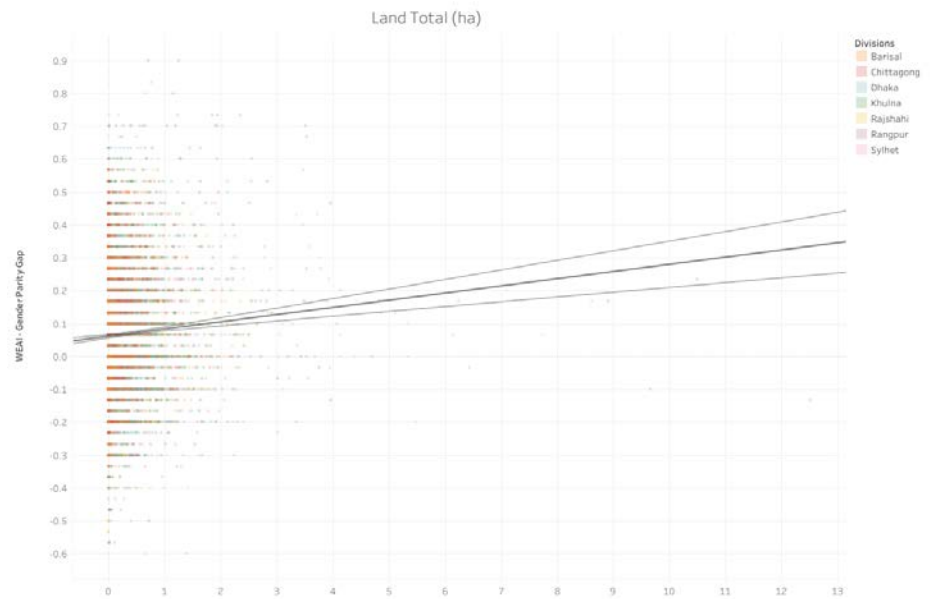


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SOME EXAMPLES: #6 TABLEAU VISUALIZATION

<https://tabsoft.co/2M4FUBW>



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CONCLUSIONS

- GCAN is an excellent opportunity to leverage USAID efforts for increasing FTF data access and use
- Backed up by IFPRI's technical expertise
- Promising examples are already available and shareable
- FTF standardized datasets helpful for researchers, practitioners, “skilled” country missions staff and policy makers
- ...and visualizations are available for the less skilled to explore possible relationships



NEXT STEPS

- Possible collaboration with universities (both US-based and local)
- Possible collaboration with Innovation labs
- Increased sensitization of USAID-mission staff
- More research using the standardized datasets under way if critical mass of FTF data becomes available
- Short summary reports (using graphs and maps) on key linkages between gender, climate, and nutrition based on standardized datasets
- Narrated PowerPoint or webpage that describes potential uses of the datasets directed at university students?

