Future Research Needs in Conflict & Development: 
Learning From Boko Haram

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Panel 1: State of Knowledge: Fragility, Conflict, and Food Systems

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Research Perspective on the Etiology of Conflicts

Simple Conflict
- Demonstrations, Riots, etc.

Complex Conflict
- Kidnapping, Pastoral Violence, etc.

Wicked Conflict
- Battles, Domestic Terrorism, Transnational Terrorism, etc.

Complexity, Duration & Management Difficulty

Socioeconomic Challenges
- food insecurity
- climate change
- governance
- no youth jobs
- etc

Prevention Strategies

Research Gaps

Crisis Zone

Lack of Development

Socio-economic Challenges

Research Gaps

FAO Facts
- > 50% of the World’s 815 million undernourished people live in places facing conflict and violence (FAO, 2017)
- 60% of the World’s Hungry & 75% of children <5 facing stunted growth live in countries affected by Conflict.
- 1.4% to 4.4% greater undernourishment in 46 countries facing conflict than other countries in the same income category
- Agriculture is the economic foundation of the vast majority of places facing conflict.
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In- and Post-Conflict Management Strategies

Research Gaps

Mass Displacement

Humanitarian Challenges

Resettlement & Redevelopment

Research Gaps

Agriculture

Land

Food Security

Markets

Education

Infrastructure

Others
### Does Food Insecurity Cause Conflict?

- Yes, but scanty evidence.

<table>
<thead>
<tr>
<th>Food Insecurity Measure</th>
<th>Leads to</th>
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<tbody>
<tr>
<td>Poor health/nutritional status</td>
<td>↑ incidence of armed conflict (cross country study) -- <em>Pinstrup-Andersen &amp; Shimokawa, 2008.</em></td>
</tr>
</tbody>
</table>
| Reduced *food availability*             | ↓ incidence of domestic terrorism (cross country study) -- *Adelaja et al, 2018.*  
| Reduced *food access*                   | ↑ incidence of domestic, but not transnational terrorism -- *Adelaja et al, 2018*  
|                                         | ↑ incidence of riots (global time series data) -- *Bellemare, 2015* |
| Increased *food instability*            | ↑ incidence of domestic terrorism (cross country study) -- *Piazza, 2013* |
| **Terrorism also associated with**      | ↑ unemployment, ↑ population density, ↑ rural expanse of land, ↓ political participation (cross country study) -- *Adelaja et al, 2018* |
| **Terrorists target agricultural areas and food markets to** | ↑ food insecurity, IDPs and enhance their recruitment pool,  
|                                         | ↑ food access for their operatives & fertilizers needed to produce IEDs,  
|                                         | ↑ captured territories in areas in proximity to their bases (territorial terrorists) -- *Adelaja, 2016* |

**Summary:**

- Conflicting evidence on food availability.
- No study on food utilization.
- Important topic. More work is needed, especially for current and emerging conflict zones.

**Policy Implication:**

- Clear evidence on the role of food insecurity in conflict is crucial to efforts to prevent conflict through food security.
## Does Conflict Contribute to Food Insecurity?

- Yes, but evidence exists only for specific countries.

### Impact on Food Insecurity

<table>
<thead>
<tr>
<th>Impact on Food Insecurity</th>
<th>Measure</th>
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<tbody>
<tr>
<td>Conflict compromises the nutritional status of children</td>
<td>Anthropometric outcomes such as height-for-age Z (HAZ), weight-for-age Z (WAZ), and weight-for-height Z (WHZ) scores (eg. Rwanda, Eritrea, Ethiopia &amp; Burundi &amp; Nigeria)</td>
</tr>
</tbody>
</table>
| Conflict adversely affects other food insecurity measures                     | ↓ Food expenses (Burundi)  
↓ Household consumption patterns (Rwanda)  
↓ Crop and livestock portfolios (Uganda)  
↓ Calorie intake (Cote D’Ivoire, Afghanistan)  
↓ Farmers’ investment (Columbia)                                                      |
| Conflict increases food insecurity in Nigeria by                               | ↑ the # of days household relied on less preferred foods  
↓ the variety of foods eaten  
↓ the portion size of meals consumed  
↓ the Food Consumption Score  
-- Conflict does not affect the # of days households went without eating anything (a more severe measure of food insecurity) |
| Evidence on “How” for Nigeria                                                  | Impact mainly through the reduction of personal income and lack of access to farm inputs.                                                                                                                    |

### Summary:

More work is needed, especially for current and emerging conflict zones.

### Policy Implications:

Evidence on how conflict contributes to food insecurity is useful predicting damage, planning for humanitarian assistance & developing long-term resettlement, rehabilitation & redevelopment programs.
Does Conflict Adversely Impact Agriculture

- Yes, but evidence exists only for specific countries.

<table>
<thead>
<tr>
<th>Impact on Agriculture</th>
<th>Impact on Farmland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm households adopt low-risk &amp; low-return strategies to survive (Uganda/Columbia).</td>
<td>Land owned ↑ - farm abandonment by neighbors &amp; family members (Nigeria)</td>
</tr>
<tr>
<td>Total farm output ↓ (e.g., Cassava, Sorghum, Rice, Yam and Soya in Nigeria)</td>
<td>% of land left fallow and distance between farmed plots and homestead ↑ (Nigeria)</td>
</tr>
<tr>
<td>Output ↓ comes largely from ↓ labor productivity (Nigeria)</td>
<td>-- No conflict impact on total cultivated land (Nigeria)</td>
</tr>
<tr>
<td>Hired labor on farms ↓, especially for women (Nigeria)</td>
<td>Mono cropping ↓ mixed cropping (low-risk cropping practice) ↑ (Nigeria)</td>
</tr>
<tr>
<td>Daily wages for farm workers ↓ (Nigeria)</td>
<td>Farmers’ expectations about land values ↓ with terrorism exposure (Nigeria)</td>
</tr>
<tr>
<td>Agricultural markets are destroyed (↓) (Global)</td>
<td></td>
</tr>
<tr>
<td>Agricultural Extension Services are ↓ (Uganda)</td>
<td></td>
</tr>
<tr>
<td>Input and agricultural investments ↓ (Columbia)</td>
<td></td>
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<tr>
<td>Harvest losses ↑ (Rwanda)</td>
<td></td>
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</table>

Summary: Conflict retards agriculture, but wicked conflicts like terrorism devastates it.

Policy Implications: Evidence on how conflict affects agriculture is useful predicting damage, planning for agricultural input assistance, and planning for post-conflict agricultural development programs.
## Gender, Youth and Other Implications

<table>
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<tr>
<th>Conflict</th>
<th>By</th>
</tr>
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<tbody>
<tr>
<td><strong>Increases the Marginalization of Women</strong></td>
<td>- ↓ female labor force participation <em>(Bosnia &amp; Herzegovina, Colombia, Kosovo, Nepal, Tajikistan, Timor Leste)</em> and school enrollment for female students <em>(Tajikistan)</em>&lt;br&gt;- ↓ household decision making by women <em>(Columbia)</em> and female political participation <em>(Sierra Leone)</em>.&lt;br&gt;- ↑ domestic violence incidence <em>(Rwanda)</em> and sexual violence by security forces <em>(Global study)</em>&lt;br&gt;- ↑ radicalization of by terrorist groups <em>(Global study)</em>&lt;br&gt;- ↑ the role of women in peacebuilding <em>(Afghanistan, Liberia, Nepal and Sierra Leone)</em>&lt;br&gt;Numerous studies from 2005 to 2018</td>
</tr>
<tr>
<td><strong>Exploits Youth &amp; compromises their future</strong></td>
<td>- ↑ terrorist recruitment pool, ↑ the incidence of conflict and ↓ long-term stability of fragile nations&lt;br&gt;- exposing youth to violence as a means of resolving social and political issues&lt;br&gt;<em>Adelaja &amp; George, 2018 (Global Study)</em></td>
</tr>
<tr>
<td><strong>Intensifies pastoral violence against farmers</strong></td>
<td>- ↑ grazing into non-traditional grazing areas <em>(Nigeria)</em>&lt;br&gt;- ↑ greater land tenure rights, crop destruction, own animal husbandry needs, etc.&lt;br&gt;- No impacts of greater herdsmen violence on agriculture &amp; food security and no spillover effects of pastoral violence on Boko Haram activities&lt;br&gt;<em>George, Adelaja, Awokuse &amp; Vaughan, 2019b; George, Adelaja, Vaughan &amp; Awokuse, 2019c</em></td>
</tr>
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<td><strong>Humanitarian Challenges observations (IDMC, 2018)</strong></td>
<td>- Conflicts that displace people can present major security, policy and humanitarian challenges.&lt;br&gt;- 40 million IDPs worldwide by 2017 <em>(30.6m were new 2017 IDPs (~80,000 new people/day))</em>.&lt;br&gt;  ▪ 39% from conflict &amp; 61% from disasters.&lt;br&gt;  ▪ SSA accounted for 46.4% of global conflict-related IDPs.&lt;br&gt;- 15% of IDPs end up in IDP camps because they have limited options – (more likely to return home post-conflict).&lt;br&gt;- 85% of IDPs end up in Host Communities because they have options/relationships – (less likely to return home).&lt;br&gt;- Permanent IDPs stress infrastructure in host communities which have limited capacity to adjust.&lt;br&gt;- Displacements compromise development <em>(poverty, hunger, ill-health, poor education, gender inequality, water/sanitation deficiencies)</em>.</td>
</tr>
</tbody>
</table>

**Summary:** More research needed on gender/youth implications, interrelationships between conflict types & humanitarian challenges.

**Policy Implications:** Such information is needed to appropriately design gender and youth sensitive programs.
## Knowledge Gaps and Research Needs

### Food Security and Related Resilience
- Sources of food security resilience and implications for humanitarian assistance, foreign aid and resilience.
- Reliability & availability of survey data in conflict zones and possible use of Big data and satellite data.
- Differential impacts of conflict (youth, women, elderly, widows & disabled).
- Differences between types of shocks (conflict vs climate) and how conflict types affect each other.

### Agriculture, Land Use & Land Tenure Impacts
- Agricultural markets, value chains, sales networks and support programs (i.e., Extension, credit, & local governance).
- Agricultural input supply (seed, feed, & fertilizer).
- Specific crop impacts (vary by nature of conflict?).
- Internal trade, international trade & global prices.
- Land tenure rights.

### Early Warning Systems
- Community-based monitoring systems and expanding local intelligence (role of non-traditional security actors).
- Predictive models of conflict impacts on food insecurity and Early Warning Systems for chronic food insecurity.

### Others
- Farmer-herder conflict (causes, etiology and impacts).
- Disability impacts of conflict and long-term implications for agricultural productivity & long-term redevelopment.
Knowledge Gaps and Research Needs

Resettlement, Rehabilitation and Redevelopment

- Barriers to the return of farmers to conflict zones (and timing) and associated lag in food availability.
- Incentives to lure farmers back (voluntary return).
- Metrics for selecting Resettlement-Ready Communities (RRCs).
- Required ag. Revitalization Assistance for economic turnaround.
- Required infrastructure needs and principles of Building Back Better (BBB).
- Optimal roles of NGOs & CSOs in a post-conflict environment.
- Transition point from humanitarian assistance to development assistance.
- Dietary and food security needs of temporary vs permanent IDPs.
- Challenges facing host communities when IDPs do not leave and infrastructure needs of host communities.
- Role of the private sector in rebuilding destroyed economies.
- Role of Corruption in deterring post-conflict redevelopment.

Gender

- Radicalization/de-radicalization rates for women and their roles in conflict prevention & post conflict reconciliation.
- Designs of conflict-sensitive women empowerment programs.

Youth

- Role of youth unemployment in unrest and conflict and the Prevention of youth violence.
- Post-conflict employment/entrepreneurial opportunities and optimal youth skills acquisition programs (relevant sectors by skills).
Conclusion

1. Agriculture is key to transforming developing economies and reducing poverty.
2. How well we prevent and manage conflict will determine the future development potential of many countries.
3. Effective policy and program interventions require a stronger knowledge base.
   a. Need fast-tracked gap-filling research (SWAT team approach).
   b. But academics reluctant to work with the security sector (e.g., DoD).
   c. Development focus of USAID -- a unique opportunity for mission-oriented research.
4. The long-term USAID strategy of resilience/sustainability requires exploring new ways to support fragile places.
   a. Incorporating food security (FS) strategies in national security (NS) strategies.
   b. Connecting NS & FS decision-makers to enhance NS through FS.