Policy Brief

Strengthening Food Security in Acute Crisis Settings: First Insights from North-east Nigeria

Dr. Ghassan Baliki, Professor Tilman Brück and Dr. Wolfgang Stojetz

ISDC - International Security and Development Center
Berlin, Germany
www.isdc.org
@ISDCBerlin

5 July 2018

1. Introduction

This Policy Brief discusses how to improve FAO programmes for food security in conflict-affected, low income areas such as North-east Nigeria. The recommendations are based on a literature review and on empirical analyses of programme and survey data from the agricultural input intervention by FAO in North-east Nigeria.

We proceed in three steps. First, we summarise key recommendations based on our review of the structural interrelations between food insecurity and conflict in North-east Nigeria. We then describe key findings from the evaluation of the FAO programme in North-east Nigeria and derive generalisable insights about agricultural input interventions and their programming in crisis settings. Lastly, we discuss specific implications for programming in North-east Nigeria.

2. The Relationship between Food Security, Violent Conflict and External Assistance

Our review of the relevant literature shows that rather than one single impact, conflict creates multiple, compounding and simultaneous outcomes spanning all four pillars of food security: stability, availability, access, and utilisation. Some of these are interrelated and may create lasting "webs" of impact. At the same time, deficiencies in all four of these pillars contribute to increased risks of mobilisation, conflict and violence.

Due to the extreme extent of both food insecurity and conflict in North-east Nigeria, many channels flowing through all four pillars in either direction are present, i.e. from conflict to food insecurity and from food insecurity to conflict. Yet, some channels are more dominant or "active" than others in North-east Nigeria, which are also likely to vary across provinces and regions. In this regard, the analysis of food-basket measures could be particularly valuable for refining our understanding of these links and their salience.

Empirically, the most robust evidence to date exists on the 'net links' between food security and conflict relevant in North-east Nigeria. That is, we know fairly well how the *combination* of all challenges jointly impact on people. In contrast, the literature offers fairly little evidence disentangling the underlying, individual causal channels. These complex channels must be better measured and recognised to advance our understanding of the details of how people are hit by conflict - and how they cope with it. And such understanding is a prerequisite for designing and implementing more effective policies and programmes.

This leads us to conclude that **more and better micro data (especially on resilience) is required for understanding and monitoring the full diversity, nature and interrelations of food security and conflict in acute crisis contexts like North-east Nigeria.**

In addition to the complex and often prolonged impacts of conflict on food security systems just described, our review highlights that the *context* critically shapes both these impacts and the specific objectives and approaches to tackle them. The design of policies and programmes responding to crises must therefore account for the nature of the conflict and the specific context, which can vary by sub-groups of the population (for example by ethnicity or gender).

Furthermore, immediate assistance and long-term development cannot be viewed in isolation. In fact, the former critically shapes the latter. Just as conflict structurally transforms the economy and society, assistance (or its absence) has a structural impact, emphasising the value of long-term policy consistency.

We therefore suggest that **strengthening food insecurity and resilience requires a context-specific and conflict-sensitive approach that integrates immediate assistance and long-term impacts.**

The review reveals a relative dearth of reliable evidence from the analysis of food policies and interventions in the Lake Chad region and beyond. Producing such evidence in crisis settings is complicated by many practical and ethical challenges facing programme implementation, research designs and data collection. However, such evidence is critically important to producing ever more informed, effective and equitable policy Interventions.

Based on these insights, whenever and to the extent possible, **programme and policy responses should be designed, monitored and evaluated in a way that allows to assess causal impacts.**

3. The Impact of the FAO Programme in North-east Nigeria

Our empirical analysis using state of the art empirical techniques led to **five major programme-specific findings**, which we summarise below:

First, the provision of agricultural inputs (cereal, pulse and vegetable kits) by FAO had strong, positive impacts on food security and resilience in North-east Nigeria. Due to the programme, the average Food Consumption Score (FCS) increased by about 13% and the Reduced Coping Strategy Index (RCSI) by about 9% for beneficiaries. On average, the programme also made it less likely (by -16%) that households had to adopt harmful coping strategies. We interpret this as a clear strengthening of resilience. We also show that improved resilience is clearly related to improved food security, suggesting that the effects reinforce each other.

Second, the strong programme impacts on food security were strongest for the most vulnerable households. The benefits for food consumption were particularly large among internally displaced households and those that live in areas of intense conflict violence. The impact on the RCSI was strongest among the internally displaced and those living in areas of low conflict intensity. This is encouraging evidence that the programme theory of change, specified before the intervention, was broadly in line with local contexts and realities - and that targeting of the programme worked.
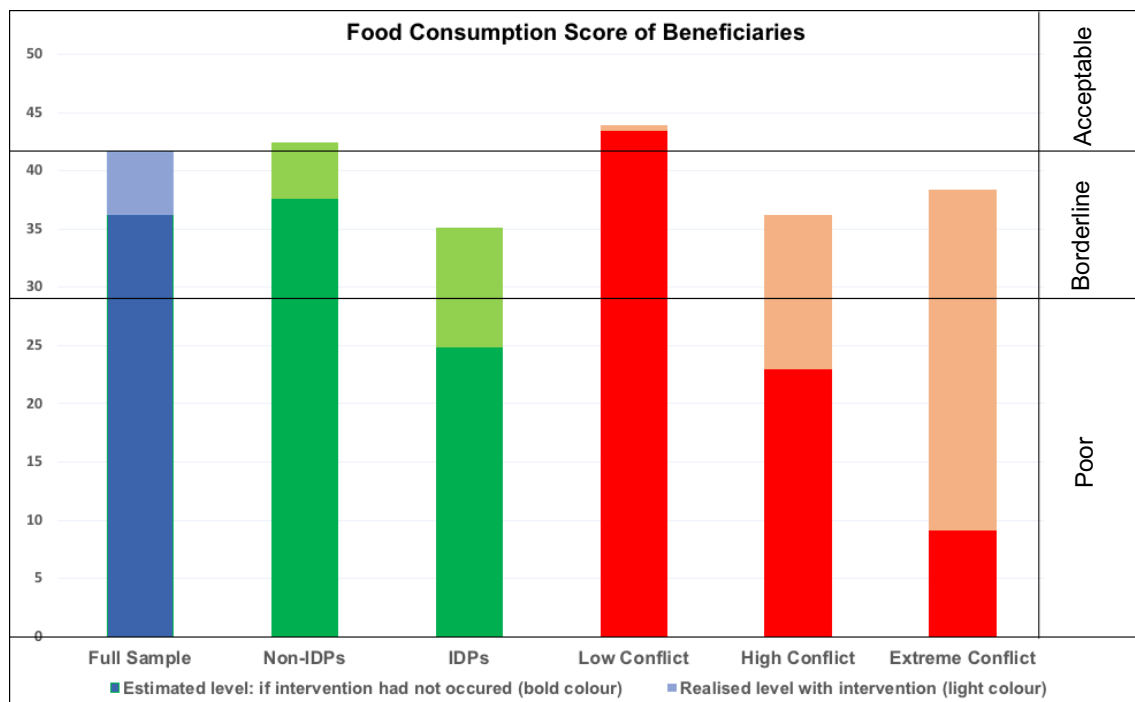

Figure 1: Food consumption scores by sub-groups

Third, the strong impacts on food security were *critically important for the most vulnerable households*. This key finding is illustrated for the food consumption score in Figure 1, which compares the realised average level among beneficiaries to their estimated hypothetical level "if the intervention had not occurred". The results reveal the enormous impact the intervention achieved: In

the absence of the intervention, food consumption of internally displaced households and those that live in areas of high or extreme conflict violence would have been extremely low. The figure also shows that despite these strong impacts, the absolute, realised level of food security is still the lowest for these three sub-groups, relative to others. In other words, this indicates that the intervention was critical for survival of these households, but that they still require continued support by external actors.

Fourth, the magnitude of the programme impacts on resilience depends on past shocks households experienced. Gains in resilience were largest for households when household do *not* experience other personal ``shocks``. Such shocks include robbery, theft, loss of land, death of a relative or friend, physical personal violence, psychological personal violence, corruption, disease, drought, and floods. This finding emphasises the intuitive notion that the experience of personal shocks impedes growing resilience capacity and affected households require additional support.

Fifth, the programme also improved perceptions of local conflicts between community members and security for beneficiaries. This is an important finding, which reflects an impact beyond the immediate programme aim. It may suggest that food security interventions can help build peace in conflict-affected areas. At the same time, *both* beneficiaries and non-beneficiaries in the same locations feel safer walking during the day, suggesting the presence of positive programme externalities. However, we also find that worries about walking alone at night increase among both beneficiaries and non-beneficiaries. A potential explanation is that, in addition to the positive impacts on perceptions among beneficiaries, the programme may also make people fear an increase in robberies in programme locations at night. It would be worth checking this impact channel in future data collection so as to avoid and, if necessary, mitigate adverse programme impacts on (perceptions of) robbery.

These findings reveal **five important insights about agricultural input interventions in crisis settings**:

First, the impacts of such an intervention **can be rigorously measured and quantified**.

Second, the **provision of cereal, pulse and vegetable kits** can play an absolutely **critical** role for the food security and resilience of the crisis-affected.

Third, these impacts are most pronounced, and critical, for **the most vulnerable**.

Fourth, provision of cereal, pulse and vegetable kits can strengthen resilience, if the household is not hit by **a personal shock**, like theft or loss of a family member. These households require **additional support to build resilience**.

Fifth, agricultural input interventions can also improve (certain) **perceptions of security in programme locations**, among *both* **beneficiaries and non-beneficiaries**.

4. Opportunities for Collecting Data, Analysis and Learning in Acute Crises

The extraordinary capacity for collecting data in North-east Nigeria empowered us to uncover and quantify the fundamental impacts of the FAO programme, despite the ongoing crisis. For the analysis, it was key to have rare high-quality data not only from programme beneficiaries but also from similar non-beneficiaries residing in the same location (establishing "treatment" and "control" groups). In addition, detailed data from beneficiaries and non-beneficiaries were collected both before the ("baseline") and after the programme ("endline"). Due to these design features we were able to produce a nuanced picture of the differences between beneficiaries and non-beneficiaries after programme implementation and to assess whether these differences are really the result of the programme.

We believe that such learning will contribute both to stronger MEAL capacity throughout FAO and its implementing partners.

Monitoring and analysis in the region could be improved and extended by continuously building up the capacity and the data collection to create evidence to strengthen our understanding of mechanisms of crisis impact and coping. In that sense, building relevant knowledge over the years is an **iterative process**.

Conflict and development are inherently dynamic processes. Continuing to analyse the impacts of new and other programmes will allow FAO to study the effectiveness of policy assistance in different stages of the crisis in North-east Nigeria. In line with FAO's programming framework in region, these stages primarily include the emergency phase and post-emergency recovery and transition. In addition to the quantitative analysis this policy brief focuses on, qualitative analyses could also provide important insights about programme impacts and the context.

Specifically, we highlight three key aspects of the iterative process based on quantitative methodology, namely design, data and learning.

4.1 Design

To conduct a robust and meaningful analysis of the impact of any programme requires, first, tracking the same individuals or households from baseline (pre-intervention) to endline (post-intervention). This is also known as a longitudinal or panel design. Tracking households and individuals in North-east Nigeria is a daunting task.

Yet, several strategies have recently been developed, tested and applied in other crisis settings, including situations of intense violence and high levels of displacement. These insights and techniques could be transferred and adapted to the North-eastern Nigerian context.

Second, such analysis requires tracking not just beneficiaries (the treatment group) but also a comparable group of non-beneficiaries (the control group).

Ensuring that these two criteria are met requires relatively little effort and extra cost - but can deliver significant new insights compared to non-panel and non-control group designs (which are the mainstay of many M&E efforts).

For instance, such a design would strengthen the causal interpretation of programme impacts and provide a more nuanced picture for which households these are largest. In fact, it may well be more cost effective from a rigorous learning perspective to conduct fewer but better designed studies than to implement blanket standard M&E data collection. However, fulfilling both criteria is easiest and most likely to succeed if planned *before* the start of programme implementation.

For future programmes, we therefore recommend **adopting a panel design with treatment and control groups as part of the overall evaluations strategy for North-east Nigeria**.

4.2 Data

As the important results above demonstrate, strengthening the institutional capacity to collect useful micro data is not a luxury but a necessity when operating in an environment where key causal relationships are not well known or understood or where these relations may change fundamentally due to the crisis. While the existing data and their quality allowed to uncover some relationships as described above, more and better information on key variables would allow a deeper analysis of the short-term (and, beyond, the long-term) impacts of the programme in **four knowledge domains**.

First and foremost, this includes a detailed look at **resilience**. This analysis would be strengthened significantly by collecting the data required to build FAO-RIMA's Resilience Capacity Indicator. In turn, this would allow a comparable analysis of resilience across multiple crisis contexts.

Second, more information is required on reliable measures of the different **agricultural input kits**. Specifically, variables would include identifiers of which household received which type of input, which in turn would allow the analysis of which kit type had the largest impact across different outcomes.

A third key domain is **conflict between members of the community and local mechanisms for resolving these.** Information on actual conflicts over land access and the local institutions of conflict resolution would allow a more factual analysis beyond perceptions. We recommend including such measures in future monitoring for North-east Nigeria.

Lastly, more detailed information on **household decision-making** would strengthen the analysis and learning. The well-being analysis would benefit from data on household finance and "behavioural"/subjective measures. A module on behavioural measures, such as on risk preferences and interpersonal trust, had been considered for the endline survey, but eventually was not included.

4.3 Learning

We see realistic opportunities for substantial further learning in North-east Nigeria about the crisis, food security, the mechanisms interlinking the two, and how to intervene effectively. These learning opportunities include, but are not limited to, four directions:

First, revisiting endline respondents in the long-term, and repeating some key questions in, for instance, one or two years from now, would allow to quantify and assess the **long-term impacts** of the programme. This would deepen our understanding of the long-term programme impacts on food security and resilience, and how conflict exposure shapes food security and programme impacts in the longer-run.

Second, adding survey modules would allow to study **other important dimensions** that impact food security and its relationships with conflict. Key variables that have not been captured yet or insufficiently include high-quality measures of physical capital, labour supply, land use and livestock. A potential solution to achieve the twin goals of capturing these important in future data collection and keeping the questionnaire at a reasonable length at the same time could be a "rotating design", where modules are added on a rotating basis.

Third, linking programme data and design with external spatially disaggregated information on conflict outcomes, agro-ecological factors and climatic conditions would allow the testing of approaches that are even more **context-specific and conflict-sensitive.** Available datasets include the conflict event data Armed Conflict Location & Event Dataset (ACLED) we used in our analysis to group households into different categories of exposure to conflict violence and could be used more and in more nuanced ways. The current "conflict exposure" indicator is an accumulative measure of any form of political violence that occurred between January 2016 and October 2017 and was captured in the ACLED dataset. More refined analyses of different conflict event categories and time horizons are promising avenues for future learning. Furthermore, more detailed climatic information is available but would need to be linked to the programme and control data. Rich socio-economic information could be obtained from, for example, World Bank LSMS data. Further integration with such datasets could both directly feed into programme design and improve the interpretation of programme impacts.

Fourth, analysing **further components of the FAO programme** would allow to assess the importance of the agricultural input interventions relative to other interventions. Detailed programme data would then allow advanced analyses of programme and intervention "performance", such as different components returns to investment and cost-effectiveness.

Ten key practical insights and recommendations for future programming, monitoring, evaluation, analysis and learning for the FAO programming in North-east Nigeria, based on our analytical work:

Message 1:   Use cereal, pulse and vegetable kits further in future livelihood, food security and resilience programmes.

Message 2:   Continue targeting displaced populations and those living in areas of intense violence.

Message 3:   Prioritise households or regions with high incidence of personal shocks, such as theft or losses of family members, for additional support.

Message 4:   Collect data to build FAO-RIMA's Resilience Capacity Indicator.

Message 5:   Collect detailed data on programme beneficiary type.

Message 6:   Collect data on communal conflict and local conflict resolution.

Message 7:   Collect data on labour and capital.

Message 8:   Analyse long-term impacts of the current programme.

Message 9:   Continue to analyse programmes (and different programme components) in the region in different phases of the crisis.

Message 10:   Use longitudinal designs in future evaluation and analysis in North-east Nigeria.