

Impacts of Climate Variability on Food Acquisition Programmes: Lessons from the Brazilian Semi-arid Region¹

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Besides tackling socio-economic vulnerabilities, social protection interventions can be an important tool in the field of climate change adaptation (Davies et al., 2008). Social protection programmes foster adaptive capacities through improvements in socio-economic variables (e.g. education, health etc.) but, on the other hand, can also be disrupted by climate change and variability. Nonetheless, not much attention has been paid to the impacts of climate or other environmental issues on the implementation and functioning of these strategies. Specifically for regions that are characterised by significant climatic variability (e.g. semi-arid regions), current shocks can serve as lessons for better planning and implementation of social protection programmes in the face of climate change.

In Brazil, the Food Acquisition Programme (*Programa de Aquisição de Alimentos*—PAA) has had many positive effects on the well-being of smallholder farmers. Increases in production, income and crop diversification, along with a stronger inclination to remain in rural areas, are some outcomes that have been associated with the PAA in the literature. However, the necessity of new information about the impacts of climate shocks on the functioning of the programme has received less attention.

As such, a set of institutional interviews was performed in four municipalities in a semi-arid region of Brazil (Cariri), covering the municipalities of Altaneira, Mauriti, Missão Velha and Salitre (Ceará). In these interviews we explored perceptions about the impacts of the 2012 drought on the functioning of the PAA. In addition to using the results as a proxy for the impacts of climate change on the local food-based safety net (FBSN), we use suggestions for programme improvements to discuss how to foster the resilience of such strategies. A total of 12 institutions were interviewed in November 2012, but five were considered relevant for this discussion.

Impacts of climate variability on the PAA

The 2012 drought exposed the Cariri region to many challenges. As observed in our fieldwork, many farmers lost animals due to a lack of water and food. Even though some programmes, such as *Compra de Milho Balcão* (CONAB), were providing subsidised grains to feed livestock, the constraints in access due to limited programme supply or a lack of financial resources resulted in the death of animals. For the PAA, the institutional actors described many impacts, including:

- dried products;
- crops not produced or yields of lower than usual quality;
- farmers redirecting production to local markets (higher prices);
- farmers not reaching quota;
- interruption of PAA-leite (for milk); and
- farmers interrupting participation.

Some of the interviewees also predicted a future lack of motivation to participate in the PAA due to challenges during drought periods.

Adjustments for a resilient PAA

According to the institutional actors, the existing bureaucracy, which leads to delays in payments and provides limited-to-no access to funding and credit, appears to be obstructing the complete set of benefits that could be acquired

from social protection programmes. Institutional constraints are related to people's ability to adapt to climate change and other environmental stresses (Adger, 2001). Another suggested adjustment for programme improvement is in relation to the institutional arrangement as well, but undoubtedly associated with historic structures of power and hierarchy in the semi-arid region of Brazil.

One of the actors stated that the PAA needs to become a government service free from the influence and effects of local political and partisan disputes over political power. The need for more flexibility and a certain elasticity to adapt to seasonal climate oscillations was also deemed necessary. Finally, some actors highlighted the need for improved technical assistance. Upgrading the technical assistance for participants and the dissemination of knowledge between farmers through local farmers' markets can help create climate-resilient programmes. The role of local institutions, including those providing extension services, is widely recognised as improving the capacity of farmers to adapt to climate change (Agrawal et al., 2008).

Conclusions and recommendations

The impacts of the 2012 drought on the PAA highlight the need to incorporate the environmental sphere into social strategies that have proven to be successful in vulnerable areas of developing countries, to ensure that the gains acquired from such strategies are not lost due to nature-related shocks. Improved technical assistance and knowledge exchange between farmers, access to credit, and better institutional capacity are a small set of straightforward strategies with the potential to tackle the current issues and also assist the transformation of the PAA into a resilient FBSN programme. The need for greater flexibility to adapt to seasonal variability was also highlighted.

Even though all these measures could produce a positive outcome for FBSN programmes in countries spread across a wide geographical area (and with varied climatic challenges), improvements in formal institutions related to programme functioning must first be addressed. This care would limit the negative impact of the deeply entrenched power structures on the more flexible and locally adapted implementations and variations of the programme. Our results are noteworthy not only for Brazil, but also in the context of increased interest of other countries with semi-arid regions in the FBSN programmes already active in Brazil and shared through South–South Cooperation agreements.

References:

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