The ABCD of food systems resilience: the case of fodder in Somaliland

Authors:
Herman Brouwer (Wageningen Centre for Development Innovation)
Abdideeq Yusuf (FAO Somalia)

WAGENINGEN UNIVERSITY & RESEARCH

Food and Agriculture Organization of the United Nations

Food and Nutrition Security Resilience Programme

Building food system resilience in protracted crises

Why food systems resilience matters

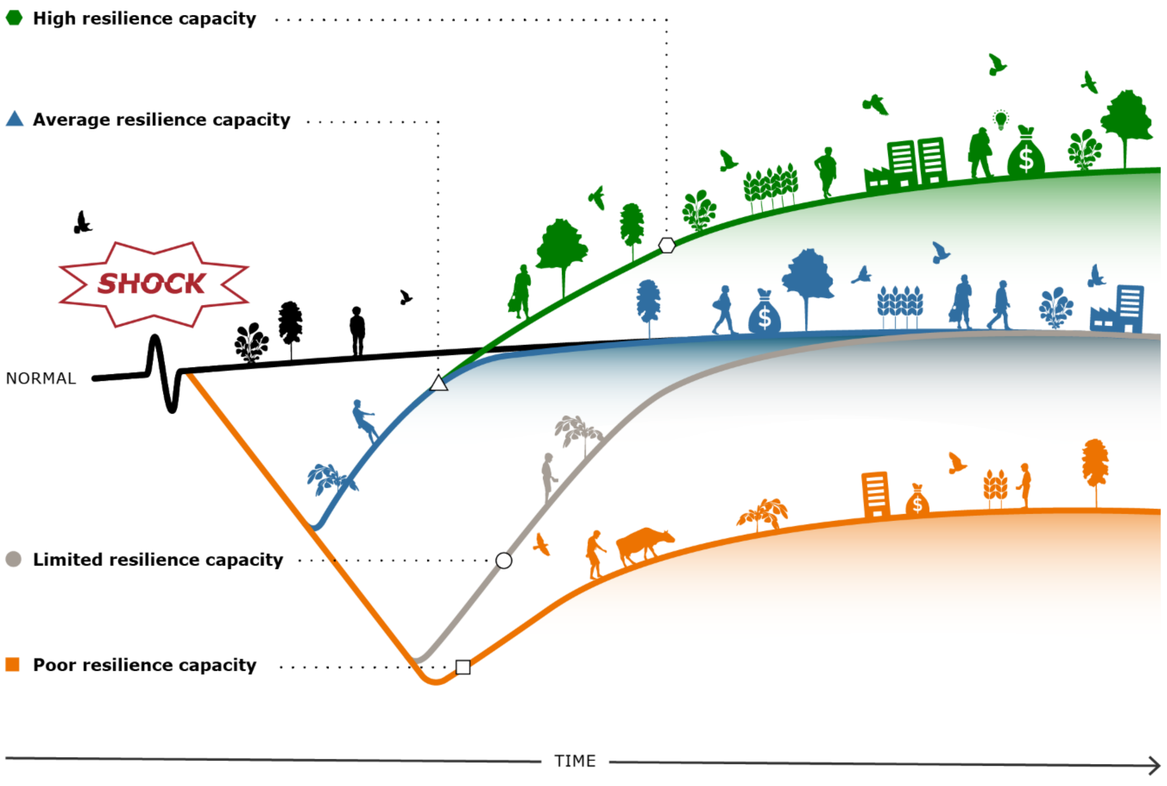
In the last 15 years, the term food systems has become popular to describe the entire range of actors and their value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of our food[1]. A food system also encompasses the wider food environment, from markets and trade to policies and innovation.

Food systems are dynamic and change all the time – even without human intervention – due to internal and external drivers. In areas plagued by impacts of climate change and protracted conflict, actors in food systems struggle to reach their objectives and deliver desired outcomes, such as food and nutrition security and equitable livelihoods for all in a healthy ecosystem. That's where resilience comes in: it is necessary that food systems can withstand shocks and stressors and maintain progress towards these desired outcomes.

Unlike other domains, such as ecology, the theory and practice of food systems resilience is relatively new and poorly understood. We define it as the capacity of food systems to deliver desired outcomes in the face of shocks and stressors. What this means and how this can be measured, is subject to confusion and contestation in part because the resilience of food systems is made up of interactions between multiple types of resilience (such as agricultural, economic, political, environmental and social). In this context, one suggestion could be to identify context-specific challenges and policy implications using a 'resilience lens', and translate resilience to contextual, measurable indicators[2].

In this process of sense-making with diverse food system actors, it is critical to be sensitive about who gets to define resilience and to ensure that political choices are made explicit[3].

What happens to food system outcomes under shocks and stressors?

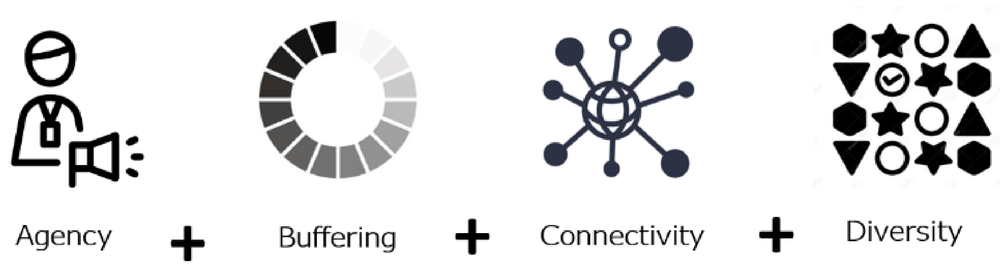


Fodder production can provide buffers for livestock in tough times. Storing fodder in silage bags to feed goats. Credit: FAO/Luis Tato

The ABCD of food systems resilience building

Whether it is in stable or volatile contexts, our literature research shows that four properties emerge very frequently in food systems that are resilient[4]:

- **A**gency: the means and capacities of people to mitigate risks and to respond to shocks.
- **B**uffering: resources to fall back on in the face of shocks and stressors.
- **C**onnectivity: the interconnection of and communication between actors and market segments.
- **D**iversity: diversity at different scales and in different places, from production to consumption and from farm level to regional diversity.



Strengthening these properties will enhance the capacity of food systems to anticipate, prevent, absorb, and adapt to the impacts of shocks and stressors. Building resilience through these key properties requires transformation of parts of the system and this raises questions about the politics and governance of markets and –broader- food systems.

Measurement of food systems resilience is still in its early days[5]. A first step has been an assessment framework[6] to support policymakers and impact investors who aspire to strengthen food systems' resilience and/or assess the effects of their policies and investments. By applying this framework, greater insight will be achieved regarding the trade-offs within food systems' resilience that are vital to consider when evaluating interventions.

Wageningen University & Research
P.O. Box 123, 6700 AB Wageningen, The Netherlands
Contact: herman.brouwer@wur.nl
www.wur.nl/foodsystemsapproach
https://fns-repro.com/

FNS REPRO

To illustrate the ABCD framework, we use a case from the Food and Nutrition Security Resilience Programme (FNS-REPRO) programme implemented by FAO and WUR with support from the Netherlands government[7]. Since 2019, this four-year plan addresses the cause-effect relationship between conflict and food insecurity in Somalia, South Sudan and the Sudan. The programme employs a livelihood and resilience-based approach in areas of protracted crises, which have until now been emergency intervention areas.

FNS-REPRO was designed to strengthen cooperation across the humanitarian-development-peace nexus to build food systems resilience in these areas. Besides activity implementation, much attention is given to a joint learning agenda in which stakeholders (including local government, NGOs, community members, universities, traditional leaders) make sense of emerging results of activity implementation, and adapt activities and theory of change accordingly.

For each country, one value chain was selected as an entry point – the seed sector in South Sudan, gum arabic in Sudan, and the fodder system in Somaliland. One emerging insight from this programme is that when dealing with food crises, the best possible entry points are the value chains on which people's livelihoods depend. These can be different from the value chains which donors currently prioritize.

Example: fodder in Somaliland

Prior analysis led to the choice to focus on the fodder value chain in Somaliland as an entry point for building resilience[8]. Livestock accounts for 60% of Somaliland's GDP, and about 85% of foreign export earnings[9]. Many of the poorer communities depend on it.

Women in Somaliland weed their farm, producing food crops on top of fodder

When FNS-REPRO started in 2019 in 25 villages in Sool and Sanaag districts, community members didn't feel the need to invest in fodder production – even though they remembered the drought of 2017. But gradually communities got enthusiastic to produce fodder, which was supported with seeds, tractor time, group organizing, livestock hubs, and cooperatives. In parallel, peace champions were trained in the facilitation of dialogues to prevent and resolve conflicts. This has led to increased community cohesion and a reduction of disputes and conflicts. All implementing partners of FNS-REPRO are local NGOs or universities that are based in Sool and Sanaag district.

In 2022 rains were limited but still many villages succeeded to produce and harvest fodder. In 2023, people are better prepared and have buffers of fodder that will help them and their animals through hard times. Storage, processing and nutritional value have all improved so that fodder can be sold for good prices, as demand is high. The rains were good in 2023 - so hopes for even more production has increased.

Other villages outside the programme area are copying fodder production as they observe the changes. During sense-making workshops, new innovations to deal with emerging challenges that were not anticipated in initial programme plans, were developed with local stakeholders.

For example, to mitigate the effects of a devastating drought, animal destocking was undertaken - where pastoralists received cash in exchange for drought-weakened non-productive small ruminants that were subsequently slaughtered. This was the first destocking campaign in Somaliland in recent history.

Still, the challenge to scale up these results remains as the overall level of vulnerability in these communities is high. Whatever benefits are accrued are shared around with many neighbours. More time and research is needed to assess whether these positive initial results on resilience will be sustained over time.

Which ABCD properties can be seen in this example?

Agency: Priority to and support for local implementing partners. Recognition of importance of local knowledges. Targeted training/sensitization of farmers, government extension staff, and private sector on contribution to peace (with Institute for Peace and Conflict Studies, University of Hargeisa).

Buffering: Supply of enough fodder for pastoralists to sustain their livestock production throughout the year, and to sell the extra allowing them to have cash flow. Improved storage technology.

Connectivity: Families grow fodder in groups of 40, and are united in cooperatives (between 360-500 pastoralists), which strengthens their bargaining position. Connections to markets, traders and service providers through Livestock Development Hubs are made. Besides providing value chain support also conflict prevention and resolution are included through training peace champions at village level.

Diversity: Recognizing that sources of resilience are diverse and need to be addressed in parallel as part of the drought response plan: early warning systems; community capacity building on fodder production; institutional innovation (coops, producer groups, Hubs); conflict resolution; destocking of livestock (providing cash to households in times of distress); training of Community Animal Health workers; and nutrition education.

Conclusion

We have described early results of a food systems resilience programme in Somaliland, using the ABCD framework which provides a simple heuristic for policy makers to understand what resilience in food systems can look like. Future use could include assessments[6] of effects of interventions on food systems resilience.

References

(1) Ericksen, P.J., *Conceptualizing food systems for global environmental change research.* Global environmental change, 2008. **18**(1): p. 234-245.

(2) Beauchamp et al 2019 *Resilience from the ground up: How are local resilience perceptions and global frameworks aligned?* doi:10.1111/disa.12342 https://www.neareast.org/download/materials_center/Resilience_from_the_ground_up.pdf

(3) Dewulf et al 2019 *The power to define resilience in socio-hydrological systems: towards a power-sensitive framework*. https://doi.org/10.1002/wat2.1377

(4) Steenhuijsen Piters et al 2021 *Food Systems Resilience: Towards a joint understanding and implications for policy*. https://edepot.wur.nl/549244

(5) See Food System Countdown Initiative; https://www.foodcountdown.org/indicator-architecture#resilience-and-sustainability

(6) Fonteijn et al 2022 *The ABCD of food systems resilience: an assessment framework. https://edepot.wur.nl/574453*

(7) See https://fns-repro.com/

(8) See https://fns-repro.com/what-is-fns-repro/somaliland/

(9) See https://moiid.govsomaliland.org/article/livestock-1

SCAN ME

Wageningen University & Research
P.O. Box 123,
6700 AB Wageningen
Contact: herman.brouwer@wur.nl;
abdideeq.yusuf@fao.org
www.wur.nl

Food and Agriculture Organization of the United Nations

Ministry of Foreign Affairs of the Netherlands

Acknowledgements

Based on inputs from: Gerrit-Jan van Uffelen (WUR), Bart de Steenhuijsen Piters (WUR), Eelke Boerema (WUR/FAO), Koen Joosten (FAO-RSEA) Luca Russo (FAO).

Photo credits: FAO.

DOI: https://doi.org/10.18174/633615

Prepared for the Resilience Evidence Forum, South Africa, June 2023.