

doi: 10.5191/jiaee.2021.28102

Frontline Extension Professionals & COVID-19: Supporting Household Food Security & Building Resilience

Mary T. Rodriguez
Ohio State University

Abstract

The world was not prepared for the COVID-19 pandemic. It has tremendously impacted health and food systems around the world and the depth and breadth of its long-term effects are yet to be seen. The rates of those that will be in poverty and food insecure are significantly higher than the predictions pre-COVID. People are coping in any way that they can, at times in ways that will have lasting impacts on their households and communities. A community's ability to absorb, adapt, and transform in the face of crisis can significantly impact how it is able to survive and thrive during those challenging times. A frontline extension professional can equitably build assets and thus capitals, ultimately increasing household and community resilience.

Keywords: COVID-19; food security; resilience; coping; Community Capitals Framework

Introduction

The world has proven it was unprepared for the reach and depth of the current public health crisis. The impact of COVID-19 has been felt across the world – impacting our personal and familial lives, our communities, our nations, and wreaking havoc on the systems upon which our society survives. However, this virus has not affected everyone equally. Impoverished communities, communities of color, and low-middle income countries, are just some of the groups to feel the disproportionate effects of the COVID-19 pandemic. The World Bank has estimated that the impact of COVID-19 could drive as many as 60 – 94 million people into extreme poverty in 2020 depending on economic growth factors and social protection programs (Lakner et al., 2020). This will be the greatest increase in world-wide poverty rates since 1998 with Sub-Saharan Africa and Southeast Asia to be hit the hardest in relation to increased poverty rates (Lakner et al., 2020).

Of the newly impoverished people, most will likely be women (Gates Foundation, 2020). Women often participate in the informal sector, such as household services, public markets, etc., all of which have experienced changes due to COVID (i.e. mobility restrictions, government lockdowns, etc.) Women are important actors in local and national food systems. Béné (2020) purports that the pandemic has significantly disrupted worldwide food systems, the economy, and women's link to food and nutritional security. Less government support in these areas and increases in unpaid household labor (i.e. childcare, cooking, cleaning, and caring for sick relatives), is resulting in a widening of the distribution of labor and income leaving women especially vulnerable to long-lasting effects of COVID-19 (Béné, 2020).

According to the United Nations World Food Programme, projected numbers

indicate that 265 million people in low- and middle-income countries could suffer from acute hunger, far surpassing 2020 predictions as a result of the COVID-19 pandemic (Anthem, 2020). The World Bank (2020) indicates that “disruptions in domestic food supply chains, other shocks affecting food production, and loss of incomes and remittances are creating strong tensions and food security risks in many countries” (n.p). The instability of the food system will affect everyone. However, the most vulnerable, the poor and those already suffering from chronic food insecurity, will be disproportionately and acutely affected.

With mobility, work, and social restrictions, households are facing extreme challenges with losses of income, food access, healthcare, and access to necessary resources. Communities must get creative in how they support their residents.

Agricultural extension has played and continues to play a critical role in helping rural farmers and households adapt and face new challenges. They are often the first on the ground to provide information and support. However, should they be used to address unexpected shocks? I do not believe that their efforts should be diverted to address an emergent health crisis like COVID-19. Babu (2020) noted that human or environmental disasters and disease epidemics can have long lasting effects on human and institutional capacity. Frontline extension professionals' work does not need to be completely diverted to address the pandemic; however, they can still provide significant support to households during this time of crisis.

Frontline extension workers provide support through more than information transfer. They help develop networks, organize efforts, promote gender equality, and aid in adaptation to significant barriers like climate change (Sulaiman & Davis, 2012). They also engage with the various

actors of the food chain and can have significant impact on household and community food security. During crises like the current global pandemic, they can leverage their existing trust, relationships, and access to information to aid households as they struggle to adapt in these unprecedented times. Through examining the frameworks of household resilience, community capitals, and equity, I provide a different perspective for the role of extension professionals in supporting households and communities in low-middle income countries during times of crisis.

Food Insecurity

Over the past several decades, the topic and definition of food security has evolved from one that focused mostly on sufficient production of food to one that encompasses several essential dimensions. In 1996, the World Food Summit proposed the following definition of food security: “[It] exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2008). With this definition, comes a description of the four main dimensions of food security: physical availability of food, economic and physical access to food, food utilization, and stability of the three dimensions over time. These four dimensions bring focus to the intersectional factors that impact food security for an individual, a household, or a community. The inclusion of these levels (individual, household and community) is important. Not only do communities have to have sufficient food production (availability), but individuals and households must also be able to access food within their community (access). Further, food needs to be nutritious (utilization); and finally, one’s status across all three of the

aforementioned concepts must be unchanging over time (stability).

Research on food security has often focused on one or a few of the aforementioned dimensions. Likewise, previous studies focused on the individual or the household as their unit of analysis. Only focusing on an aspect or using only one level of analysis does not account for the systematic complexity of this wicked issue. Maxwell and Smith (1992) argued that we cannot investigate food security independent of livelihood security. They propose a few key concepts with which to view food security: individual household members will experience food security differently; people will implement different (coping) strategies to ensure food security for themselves or their families; and vulnerable livelihood systems are adaptable and flexible. With this in mind, we must bring additional concepts to our understanding of food security.

Coping & Resilience

When facing changes in a household’s food security, individuals may lean into strategies that help them *cope* with the current situation. Davies (1993) made an important distinction between coping strategies (mechanisms to deal with short-term food insufficiency) and adaptive strategies (long-term or more permanent change to people acquire food or income). The difference between the terms is important to consider when investigating how households or individuals initially address food insecurity and how they can lead to long-term livelihood changes. There is also a distinction between coping and resilience, which is also important to our understanding.

Coping

Maxwell (1996) determined that households could engage in either or both food-based/non-food based coping

strategies. Individuals in urban/peri-urban settings can practice several food-based coping strategies: eating less preferred foods; limiting portion sizes; borrowing food or money to buy food; maternal buffering (mothers limiting her own food intake to allow children to have more); skipping meals during the day; and finally, skipping meals for whole days (Maxwell, 1996; Saaka et al., 2017). These are coping mechanisms employed during short-term food insufficiency. Rural households also coped in similar ways. However, those same households could additionally rely on their rural environment for sustenance such as eating wild vegetables and fruit and, in some cases, hunting wild game. Rural households also employed several non-food related strategies: borrowing grain or cash from relatives; selling livestock (both animals for consumption and productive animal assets); receiving food aid; participating in food for work programs; off-farm agricultural employment; wage labor; renting out land; mortgaging land; and seasonal migration (Ameda, 2014; Quaye, 2008). While these short-term coping strategies can relieve the stress and address immediate felt needs, they are likely to have significant long-term impacts on the household.

Resilience

While coping is a mechanism to aid in the short term, resilience focuses on long-term adaptation. French ecologist C. S. Holling defined resilience as, “a measure of the ability of these [eco]systems to absorb changes of state variables, driving variables, and parameters, and still persist (Holling, 1973, p. 17). While not the first definition of resilience, the concept gained great popularity in the field of ecology and other disciplines (i.e. climate change and adaptation water scarcity disaster risk reduction, poverty and social well-being, and urbanization) (Béné et al., 2016). The

definition of resilience has evolved over time. It no longer focuses on solely on the buffering capacity of a system or its ability to maintain function, but rather highlights the dimensions of adaptiveness and transformability (Martin-Breen & Anderies, 2011). Adaptive capacity or adaptiveness in the social-ecological context refers to the processes, outcomes, or actions implored by a system (household, community, nation, etc.) in response to hazardous or stressful conditions (Smit & Wandel, 2006).

Adaptiveness, as an essential component of resilience, has become an important in the field of international development.

The concept of resilience can help to understand how to reduce vulnerability and promote human development (Bèné, 2013). Resilience has been defined, measured, and conceptualized in many ways and many contexts as it is time, space, livelihood, and shock-specific. In recent decades, resilience has become a central paradigm in many development sectors such as humanitarian aid, disaster risk reduction, climate change adaptation, and social protection within which food security and nutrition play an integral role (Bèné et al., 2016). Bèné et al. (2012) proposed that resilience is a combination of three capacities: “(1) *absorptive* capacity leading to persistence, (2) *adaptive* capacity leading to incremental adjustments/changes and adaptation, and (3) *transformative* capacity leading to transformational responses” (p.125). They also explain that as a system (household, community, society) adapts to the stressor/crisis, it will be faced with transaction costs and associated risks within each capacity. It is imperative to note: all units within the system may not experience the same intensity or scale of vulnerability caused by the stressor/crisis. In that sense, to build resilience, you must “strengthen the three components (absorptive resilience, adaptive resilience, transformative

resilience) together, and at multiple levels (individual, households, communities, region, etc.)” (Bèné et al., 2012, p. 23). So, how do we better help vulnerable people cope, adapt, or transform through change? Engaging with households through an asset-based approach, rather than a deficit lens, can help practitioners build their resilience.

Conceptual Application: Community Capitals Framework (CCF) & Equity

Increasing a household’s capacity to cope, adapt, and transform can be enhanced through attention to the resources available to them. A way to conceptualize these resources or assets is through community capitals.

Community Capitals Framework (CCF)

Flora et al. (2016) found that rural communities, no matter how isolated or poor, have resources that over time and investment become capital for a community. This concept was rooted in creating sustainable communities – bringing economic security to all through the social inclusion of all people and improving the collective wellbeing. The seven capitals, natural (environment – i.e. air, water soil, wildlife, etc), cultural (worldview – i.e. values, beliefs, etc.), human (capability – i.e. education, skills, health, self-esteem), social (relationships – i.e. mutual trust, reciprocity, shared future, etc.), political (governance – i.e. rules and regulations that determine the distribution of resources), financial (finances – resources that are translated into more resources), and built capital (human-constructed infrastructure – i.e. information technologies, railroads, factories, daycare centers, etc.), work both independently and interdependently to either add or detract from a sustainable community (Flora et al., 2016). Communities are not passive recipients of the aforementioned capitals; the choices they make affect how change

occurs in their community. Each individual within the community must be willing to be active and participate in its overall development.

Practitioners often view these capitals as a means to increase community-level resilience (Cafer et al., 2019). The Community Capitals Framework (CCF) allows practitioners to conceptualize a community’s adaptive capacity, as a component of resilience, by analyzing the number and quality of assets available to them in times of crisis (Cafer et al., 2019). During times of crisis, communities cannot continue ‘business as usual’. Using the CCF framework, practitioners can help communities evaluate their assets using various participatory methods (i.e. community asset mapping) and develop strategies for increasing food security for the whole community. Identifying assets should occur at both the household and the community level. Cafer et al. (2019) present their community resilience framework as an integrated model for demonstrating how assets, hazards, and vulnerabilities work together to build equity and adaptive capacity for community resilience. An important concept from their framework to keep in mind is this concept of equity. This is where practitioners can bring this concept to the individual household.

Equity

Equity is how all members within a society have access to both society’s benefits and costs; it is social justice for all economic and social groups within that society (Magis, 2010). “Equity ensures open access and equal opportunity, which enable the development and engagement of resources from throughout the entire community for the community’s benefit” (Magis, 2010, p. 412). When considering the individual household within a community, it is important to consider that not all

households will have access to or benefit from assets in the same way. In particular, marginalized and disenfranchised households are most likely to have different capacities or opportunities to leverage their assets in times of need. During times of change or adaptation/transformation, these disparities are exacerbated by the current social, economic, and cultural conditions (Fazey et al., 2017). Equity is an essential concept when addressing household resilience and how community capitals are built, fostered, and leveraged. Practitioners must pay close attention to the inequalities in a community when addressing resilience and implementing interventions to increase assets or build capital. Lack of attention will create further distance between marginalized and majority groups within society, further impacting their ability to adapt to change.

Discussion & Implications

The COVID-19 pandemic caught many households and communities off guard. Already precarious health, economic, livelihood situations were made worse, especially for marginalized and disenfranchised people. Deveraux, Béné, and Hoddinott (2020) state that COVID-19 has affected food insecurity both directly and indirectly. The disruption to the food system and effects of lockdowns on household income and physical access to food, have caused severe consequences. While everyone all over the world is doing their best to survive, it is likely that many households are engaging in coping behaviors, out of need, that will have lasting effects on their family's wellbeing. Swift (1989) assumed that when households are able to produce a surplus of food above their basic food needs, that excess can be translated into assets to draw upon in times of crisis. However, climate change, unstable markets, lack of resources, etc. have created a volatile situation where many families

have likely faced difficulty in accumulating that surplus and thus do not have the assets to leverage.

So, what can be done with such a dire outlook? Build community assets, equitably, in a manner that reduces coping and increases resilience. As previously mentioned, frontline extension workers, due to the nature of their work, are uniquely placed to support enhancing community capitals for the benefit of a community's people and households. Likewise, they know the importance of food security and can help address the various components through building these capitals through information sharing and skill development (human capital); providing access to financial services (financial capital); and building bridges and fostering connections amongst individuals and with supporting institutions (social capital). However, many of these activities will address only food access or availability; these efforts fail to achieve stability. Stable food security status means that the person has consistent access to nutritional foods over an extended period of time preventing malnutrition. A person's nutritional health is significantly correlated to their food security (Gross et al., 2000). If stability is not achieved, a person's wellbeing will impact their capacity to adapt during difficult times.

Through their work, extension workers should also strive to support communities achieve stability. The capacities to absorb, adapt, and transform in order to be resilient are connected and interdependent. Stability, as proposed by Bèné et al. (2012), is as important as the three capacities and in fact is necessary for two of three to occur: adaptive and transformative capacity. This stability can aid in the accumulation of wealth and assets (Bèné et al., 2012; Swift, 1989). Additionally, it allows for the necessary assets, social and institutional resources

which aid in adaptive capacity to be built up and strengthened over time. It should be noted that stability should not deter innovation. Innovation is necessary for change and can be a key factor in reducing poverty and addressing inequalities.

The concept of stability across both food security and resilience can create an aim for extension professionals to achieve in their long-term interactions. Despite this projective outlook, every step taken towards that end goal can aid in the short and intermediate term. In working with communities, they can continue to build community capitals and they should do so with equity in mind. Asset accumulation is insufficient for the most vulnerable. Fostering shared decision making at the community level, supporting innovation and experimentation, and presenting new opportunities further builds resilience to crisis.

This paper presents an opportunity to build the capacity of extension workers to see their role as community change agents in a different way. They are instrumental in building resilience and thus strengthening food security. They can aid in equitably developing community capitals the benefit all members of the community. Through this work, they can help households and communities be better prepared, adapt, transform, and thrive once again during crisis like the current COVID-19 pandemic.

References

- Ameda, T. (2014). Determinants of households food security and coping strategies for food shortfall in Mareko district, Guraghe zone southern Ethiopia. *Journal of Food Security*, 2, 92-99. <https://doi.org/10.12691/jfs-2-3-4>
- Anthem, P. (2020). Risk of hunger pandemic as coronavirus set to almost double acute hunger by end of 2020 [Editorial]. World Food Programme Insight. Retrieved from <https://insight.wfp.org/covid-19-will-almost-double-people-in-acute-hunger-by-end-of-2020-59df0c4a8072>
- Babu, S. C. (2020). *What happens to extension institutions during disease outbreaks and how to prevent institutional capacity erosion*. Agrilinks. Retrieved from <https://www.agrilinks.org/post/what-happens-extension-institutions-during-disease-outbreaks-and-what-can-be-done-prevent>
- Béné, C., Wood, R. G., Newsham, A., & Davies, M. (2012). Resilience: new utopia or new tyranny? Reflection about the potentials and limits of the concept of resilience in relation to vulnerability reduction programmes. *IDS Working Papers*, 2012(405), 1-61. <https://doi.org/10.1111/j.2040-0209.2012.00405.x>
- Béné, C. (2013). Towards a quantifiable measure of resilience. *IDS Working Papers*, 2013(434), 1-27. <https://doi.org/10.1111/j.2040-0209.2013.00434.x>
- Béné, C., Headey, D., Haddad, L., & von Grebmer, K. (2016). Is resilience a useful concept in the context of food security and nutrition programmes? Some conceptual and practical considerations. *Food Security*, 8, 123-138.
- Béné, C. (2020). Resilience of local food systems and links to food security—A review of some important concepts in the context of COVID-19 and other shocks. *Food Security*, 12, 805–822. <https://doi.org/10.1007/s12571-020-01076-1>
- Cafer, A., Green, J., & Goreham, G. (2019). A community resilience framework for community development practitioners building equity and adaptive capacity. *Community Development*, 50(2), 201-

216.
<https://doi.org/10.1080/15575330.2019.1575442>
- Davies, S. (1993). Are coping strategies a cop out? *IDS bulletin*, 24(4), 60-72.
- Devereux, S., Béné, C., & Hoddinott, J. (2020). Conceptualizing COVID-19's impacts on household food security. *Food Security*, 12, 769-772.
<https://doi.org/10.1007/s12571-020-01085-0>
- FAO. (2008). *An introduction to the basic concepts of food security* [Guide]. Food Security Information for Action. Retrieved from <http://www.fao.org/3/a-al936e.pdf>
- Fazey, I., Carmen, E., Chapin III, F. S., Ross, H., Rao-Williams, J., Lyon, C., Cannon, I.L. C., Searle, B., A., & Knox, K. (2018). Community resilience for a 1.5 C world. *Current Opinion in Environmental Sustainability*, 31, 30-40.
<https://doi.org/10.1016/j.cosust.2017.12.006>
- Flora, C. B., Flora, J. L., & Gasteyer, S. P. (2016). *Rural Communities: Legacy + Change* (5th ed.). Westview Press.
- Gross, R., Schoeneberger, H., Pfeifer, H., & Preuss, H. J. (2000). *The four dimensions of food and nutrition security: definitions and concepts*. FAO. Retrieved from http://www.fao.org/elearning/course/fa/en/pdf/p-01_rg_concept.pdf
- Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, 4(1), 1-23.
- Lakner, C., Mahler, D. G., Negre Rossignoli, M., & Prydz, E. B. (2020). *How much does reducing inequality matter for global poverty?* Global Poverty Monitoring (Technical Note 13). World Bank Group. Retrieved from <http://documents.worldbank.org/curated/en/765601591733806023/How-Much-Does-Reducing-Inequality-Matter-for-Global-Poverty>
- Magis, K. (2010). Community resilience: An indicator of social sustainability. *Society & Natural Resources*, 23(5), 401-416.
<https://doi.org/10.1080/08941920903305674>
- Martin-Breen, P., & Anderies, J. M. (2011). *Resilience: A literature review*. The Bellagio Initiative. Retrieved from <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/3692/bellagio-rockefeller%20bp.pdf?sequence=1>
- Maxwell, S. (1996). Measuring food insecurity: the frequency and severity of "coping strategies". *Food Policy*, 21(3), 291-303. [https://doi.org/10.1016/0306-9192\(96\)00005-X](https://doi.org/10.1016/0306-9192(96)00005-X)
- Maxwell, S., & Smith, M. (1992). Household food security: A conceptual review. *Household food security: Concepts, Indicators & Measurements*, 1, 1-72. Retrieved from <http://www.drcsc.org/resources/FoodSecurity-Concept%20of%20Food%20Security2.pdf>
- Quaye, W. (2008). Food security situation in northern Ghana, coping strategies and related constraints. *African Journal of Agricultural Research*, 3(5), 334-342. Retrieved from <http://www.academicjournals.org/AJAR>
- Saaka, M., Oladele, J., Larbi, A., & Hoeschle-Zeledon, I. (2017). Household food insecurity, coping strategies, and nutritional status of pregnant women in rural areas of Northern Ghana. *Food Science & Nutrition*, 5(6), 1154-1162.
<https://doi.org/10.1002/fsn3.506>
- Smit, B., & Wandel, J. (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, 16(3), 282-292.

- Sulaiman, R.V., & Davis, K. (2012). *The new extensionist: Roles, strategies, and capacities to strengthen extension and advisory services*. Global Forum for Rural Advisory Services (GFRAS). Retrieved from <https://www.gfras.org/fr/savoirfr/gfras-publications.html?download=126:the-new-extensionist-position-paper>
- Swift, J. (1989). Why are rural people vulnerable to famine?. *IDS Bulletin*, 20(2), 8-15. Retrieved from <https://bulletin.ids.ac.uk/idsbo/article/%20view/1823>
- The Gates Foundation. (2020). *2020 Goalkeepers report: COVID-19 - A global perspective*. Retrieved from <https://www.gatesfoundation.org/goalkeepers/report/2020-report/#GlobalPerspective>
- World Bank. (2020). *Food Security and COVID-19* [Brief]. Agriculture and Food. Retrieved from <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19#:~:text=The%20U.N.%20World%20Food%20Programme,of%20income%20and%20remittance%20losses>