
Food Security, Climate Challenges and Resilience Building in the HoA

Summary for Validation Workshop

HESPI: Pillar 2 on Regional Integration, Infrastructure Development, and
Environmental and Financial Access Challenges

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1. Background

The first two Sustainable Development Goals (SDGs) call to ‘end poverty in all its forms everywhere’ (SDG1) and to ‘End hunger, achieve food security and improved nutrition and promote sustainable agriculture’ (SDG2) by 2030. Current trends especially in SSA mainly in the countries in the Horn of Africa suggest that most countries are not on track to meet the SDGs.

Data collected by FAO in 2014- 2016 in almost 150 countries reveal that nearly one in ten people in the world (9.3 percent) suffered from severe food insecurity corresponding to about 689 million people (FAO 2018). Pronounced differences in the prevalence of severe food insecurity are observed across continents. Africa has the highest level of severe food insecurity, reaching 27.4 percent of the population – almost four times that of any other region in 2016. For the Horn of Africa, it is even higher reaching 30%. Africa in general and the Horn of Africa in particular is also one of the regions where food insecurity is on the rise with an increase of almost three percentage points from 2014 to 2016 (FAO et.al., 2018).

A variety of factors contribute to food insecurity in the HoA. Climate Change (CC) has emerged as one of the most important environmental and development challenges in the region. Countries in the Horn of Africa like many other Least Developed Countries (LDC), are most vulnerable to the impact of climate change and bear the highest risks to their socioeconomic development. Climate change is already impacting agriculture and food security and will make the challenge of ending hunger and malnutrition even more difficult.

Understanding food security vulnerability to climate change is key to framing ways to adapt to and reduce the net climate change impact by reducing vulnerability. It is in this framework that this research focuses on the effect of climate change on food security, and explore ways to reduce negative impacts through adaptation and resilience building.

The general objective of the study is to provide an overview of food insecurity in the HoA and analyze the effect of climate change on food security, and explore innovative resilience building approaches to address food crisis in the region.

The study serves the following specific objectives:

- Analyzing trends of food security/insecurity and vulnerability to food insecurity. The Horn of Africa is one of the world’s most food insecure regions and climate shock is one of the pervasive threats to food security.
- Assessing the impact of climate change on food security, as explained by its key dimensions, and understanding the risks as well as the vulnerabilities to these risks, and
- Identifying effective measures to reduce vulnerability and build resilience to climate change.

2. Food insecurity, and the food systems in HoA.

The FAO reported in 2019 that hunger is on the rise in almost all sub-regions of Africa, the region with the highest prevalence of undernourishment, at almost 20 percent. The Horn of Africa is one of the most food insecure regions in the world, as countries in the region have been threatened by famine at least once in each decade. Unlike most other sub regions, we do not face the same frequency of frequent needs for humanitarian assistance that we confront in this sub-region associated with prevalent hunger.

2.1 Food insecurity and malnourishment in the HoA

In this report, we review the food systems and food insecurity. In addressing food security, the dual aspects of malnutrition – under-nutrition and micro-nutrient deficiency are considered. The UN General Assembly on 6 July 2017 adopted two indicators for monitoring SDG Target 2.1: the Prevalence of Undernourishment (PoU), and prevalence of moderate or severe food insecurity.

The PoU, which is FAO's traditional indicator used to monitor hunger at the global and regional levels, is an estimate of the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels to maintain a normal active and healthy life. It is computed from aggregated country-level data on food available for human consumption. For each country, the distribution of average, daily dietary energy consumption in the population is compared with the distribution of dietary energy needs to produce an estimate of the proportion of the population that lacks enough dietary energy for a healthy and active life (expressed as a%).

The prevalence of moderate or severe food insecurity in the population was developed by FAO to complement the information provided by the PoU and to provide a broader perspective on the food access dimension of food security. People experiencing moderate food insecurity face uncertainties about their ability to obtain food and have been forced to reduce, at times during the year, the quality and/or quantity of food they consume due to lack of money or other resources. It thus refers to a lack of consistent access to food, which diminishes dietary quality, disrupts normal eating patterns, and can have negative consequences for nutrition, health and well-being. People facing severe food insecurity, on the other hand, have likely run out of food, experienced hunger and at the most extreme, gone for days without eating, putting their health and well-being at grave risk (FAO, et al., 2018).

2.2 Impact of climate change on food security

Mounting evidence points to the fact that climate change is already affecting agriculture and food security, which will make the challenge of ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture more difficult (FAO. 2016). There are many routes by which climate change can impact food security and thus human health. One major route is via climate change affecting the amount of food, both from direct impacts on yields and indirect effects through climate change's impacts on water availability and quality, pests and diseases.

These risks on agricultural production translate into additional risks for the food security and nutrition of not only the people who directly depend on agriculture but also on the food security and nutrition of distant populations through price volatility and disrupted trade.

2.3 Impact on food availability: Climate variability and extremes are negatively affecting agricultural productivity – the amount of agricultural outputs per inputs used to generate them – at global, national and subnational scales. This is reflected in changes in crop production (crop yields, cropping areas and cropping intensity) and livestock.

2.4 Impact on food access: Access to food involves the ability to obtain food, including the ability to purchase food at affordable prices. Declining food availability discussed above will inevitably translate into loss of income for people whose livelihoods depend on agriculture and natural resources, reducing their ability to access food. Climate change will continue to drive prices in Africa in general and the HoA in particular.

2.5 Impact on food utilization and food safety: Climate change also affects the variety of foods with higher nutritional value that are available for people, due to disruptions in trade and crop production. Thus, climate variability and extremes have repercussions for food utilization as they jeopardize the nutritional quality of food produced and consumed, as well as food safety.

3. Measures to build resilience in HoA to adapt to climate change

Drought and adverse climate change, whose severity is forecast to increase, is a pervasive threat in the HoA. When drought occurs, humanitarian responses are at the forefront characteristically driven by a focus on saving lives resulting in a significant fall on human fatalities. However, it is well acknowledged that this measure of success is partial, and inadequate, as those people whose lives are saved will require emergency relief as soon as the next disaster strikes. With reference to the persistent vulnerability and lack of resilience, “*Once a hotspot in requiring emergency support, always a hotspot*” that characterize many communities affected by drought. As regards longer-term resilience humanitarian aid is not helping people to build safer and more productive lives.

It is critical to take a long-term perspective on how to reduce vulnerability and to ‘drought-resistant’ human and socioeconomic development for the Horn’s poorest communities. Such a perspective looks beyond a single drought and/or a single response to consider what, fundamentally, are the causes of vulnerability (in a broader sense) for communities in the horn. This perspective would link the specific consequences of reduced rainfall with other dynamics of poverty and vulnerability, such as those relating to financial and social capital, lack of developmental infrastructure, and market access. Designing interventions based on this fundamental and far-reaching approach is, essentially, a matter of building the resilience of people, and economic and environmental systems.

a. Resilience Building Approach.

Critical dimensions to enhance adaptation to climate change and build resilience comprise the following: risk sharing and risk acceptance, market stabilization, social protection, and livelihood stabilization. These complimentary measures not only influence the resilience of livelihoods and food security but also support each other. At the same time, lack of emphasis on one could derail the influence of the other dimensions on resilience of livelihoods and food security.

(i) Risk sharing and risk acceptance for building resilience

Poor people are particularly exposed and vulnerable to the physical impacts of climate change, such as reduced crop yields, more intense floods, or lower productivity due to extreme temperature, making climate change and disasters a magnifier of existing inequalities. In this context, it is crucial for smallholder farmers, pastoralists and agro-pastoralists to rely on efficient protection mechanisms against these impending risks. Innovative strategies and insurance mechanisms are needed to help smallholder farmers adapt to the effects of extreme weather events. Over the past few decades' weather index insurance has been increasingly regarded as an important alternative for protecting farmers against weather shocks and for enabling investment and growth in the agricultural sector.

(ii) Market Stabilization

Trade is key for economic growth and an essential component of any food security strategy. Generally, every country has a comparative advantage in some goods and services, and all countries could potentially gain when engaging in trade. With climate change expected to alter the comparative advantage of agriculture across regions and countries, trade and trade policies will play an important role in shaping adaptation to climate change and to extreme weather events and in ensuring food security in times of weather-induced production shortfalls. To a large extent, this potential will depend on a well-functioning trading system and consequently on domestic policies and border measures. Market integration, lower import tariffs and the elimination of export subsidies would increase trade globally, enhancing its adaptive role by facilitating the movement of agricultural products from surplus to deficit regions.

(iii) Reducing Negative Impact (Social Protection)

The three main types of social protection are (i) social safety nets or social assistance – non-contributory program for the most vulnerable groups with no other means of adequate support. This include conditional and unconditional cash transfers, public work programs, subsidies and food stamps; (ii) social insurance – contributory programs to cushion the risks associated with life cycle-related events. This consists of contributory pensions and contributory health insurance; and (iii) labor market measures – policies and programs designed to facilitate employment and promote the efficient operation of Labour markets such as unemployment compensation.

(vi) *Livelihood Diversification*

Livelihood diversification strategies are implemented by households in rural environments as a response to threats and opportunities to manage risk and increase or stabilize income and consumption. Most households in rural areas of developing countries rely on rain-fed agriculture for their livelihoods and, as such, are highly dependent on climatic conditions. Climate variability, associated with farm-income variability, is recognized as one of the main drivers of livelihood diversification strategies in developing countries. The conditions that lead to diversification are further amplified in rural economies, where credit and insurance markets are missing/imperfect.

Livelihood diversification is thus a key element of resilience, and strengthens the capacity of households to deal with future shocks and stresses Institutional Challenges for Climate Change Adaptation and Resilience Building

4. Regional response to climate change

The IGAD countries responses to climate change and food insecurity disasters, thus far, have been largely reactive and firefighting. Most of the work done are on emergency response. The region is characterized by weak institutional capacity, limited infrastructure, limited capacity and equipment for disaster management, and limited financial resources.

The study for the reformulation of the IGAD response to climate change impact identified areas of regional cooperation and suggested regional actions to enhance food security. However, these strategies did little to reduce food insecurity in the region for many reasons; **mainly they were initiated from the top with little appreciation of the constraints, needs and priorities of the target beneficiaries, but perhaps most importantly most of these initiatives lacked secure sources of funding.**

In line with the overall strategy, IGAD developed a food security strategy 2005 – 08 that identified four regional strategic outputs *as harmonized policies, information, capacity building, and science and technology*. **Its overall strategy was to enhance “capacity of member states through closer regional cooperation in sustainable food production, marketing and poverty reduction”**. The areas of regional action proposed in this strategy cover the three stages of food production, marketing and consumption.

The IGAD Drought Resilience and Sustainability Initiative (IDDRSI) Strategy, 2013, is aimed at addressing the effects of drought and related shocks in the region in a sustainable and holistic manner. The decision to end drought emergencies was taken by IGAD Heads of State and Government at a Summit convened in Nairobi in September 2011, following the severe drought that devastated the region in 2010/2011. The Summit took the bold decision to address the effects of recurring droughts on vulnerable, calling for increased commitment by affected countries and Development Partners to support investments in sustainable development especially in the Arid and Semiarid Lands.

The IDDRSI is intended to link peace building, development and disaster risk management efforts to build a holistic approach to drought responses across the region working through national, regional, and international actors and forums,. The new approach specifically includes cross-border programming, by putting resilience at the heart of development and relief efforts.

The Nairobi Summit assigned the IGAD Secretariat the role of leading and coordinating the implementation of the decision; and urged all countries to work together as a region and all

concerned to do things differently, working concertedly and holistically, combining relief and development interventions, aimed at building resilience to future climatic and other shocks.

The Strategy identifies 7 priority intervention areas that include (i) ensuring equitable access and sustainable use of natural resources; (ii) enhancing market access, facilitating trade and availing versatile financial services; (iii) providing equitable access to livelihood support and basic social services; (iv) improving disaster risk management capabilities and preparedness for effective response; (v) enhancing the generation and use of knowledge, technology and innovation; (vi) promoting conflict prevention and peace building; and (vii) strengthening coordination and institutional arrangements for collaborative and synergistic actions.

The recurring severe droughts in the region that exacerbated chronic food insecurity to famine levels, in several areas, highlighted the importance of focusing on sustainable development and the urgent need to invest in resilience building as a means to end drought emergencies in the region. In the past, efforts were more concentrated in managing the drought disasters and related humanitarian emergencies.

The new approach being favored is to focus on the underlying causes of the need for humanitarian aid and approach disaster management through pro-active, preventive and structural development oriented solutions. The new approach emphasizes the need for countries to work together as a region; adopt the twin track approach where emergency response is linked to recovery and long-term development; focus on priority intervention areas as identified by target communities and member states; and ensure that the design; development and implementation of the interventions take into account all aspects of building human resilience.

The new approach also identified opportunities for promoting drought resilience in the region including

- Establishing regional and international mechanisms for cooperation to address cross-border drought issues;
- Creating national implementing and coordination structures;
- Mobilizing interest of donors to support national and regional initiatives to enhance drought resilience.
- Demonstrating Capacity development of institutions and key actors in drought management and resilience building;
- Promoting partnership for Integrated Drought Management;
- Facilitating policy development for integrated drought management;
- Mainstreaming drought mitigation and adaptation strategies in relevant government sector ministries and agencies;
- Strengthening Early Warning Systems.

5. Climate change response and global governance

There is over whelming evidence and near consensus globally that climate change is among the leading causes of rising global hunger according to a report released by the UN's Food and Agricultural Organization (FAO) in September 2019. Pointing to extreme weather events, land degradation and desertification, water scarcity and rising sea levels, the Report details how climate change already undermines global efforts to eradicate hunger. Overall, the number of hungry people estimated at 821 million worldwide will continue to rise if countries fail to tackle climate change and to build resilience to its unavoidable impact.

33. The heads of the UN Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), the UN Children's Fund (UNICEF), the World Food Programme (WFP) and the World Health Organization (WHO) call for an integrated approach to counter the adverse effects of climate change on food security. They declare that ***“If we are to achieve a world without hunger and malnutrition in all its forms by 2030, it is imperative that we accelerate and scale up actions to strengthen the resilience and adaptive capacity of food systems and people's livelihoods in response to climate variability and extremes,”***

The number of extreme climate-related disasters, including extreme heat, droughts, floods and storms, has doubled since the early 1990s, with an average of 213 of these events occurring every year during the period of 1990–2016. These disasters harm agricultural productivity of major crops such as wheat, rice and maize causing food price hikes and income losses that reduce people's access to food.

In several regions of the world, in particular the Horn of Africa countries and among the small Island states in major oceans, the global climate crisis is leading to definite existential threat in the near term. In the case of the HoA region, the rising temperatures attributed to Co2 emissions and other greenhouse gases is leading to frequent and extreme droughts, floods and extreme heat that has contributed to prevalent food insecurity and famine that is occurring with unheard of frequency. What is particularly relevant is that these worst affected regions and states have extremely limited contribution, if any, to the GHGs emissions contributing to the global warming and its adverse impact.

36. For decades, the member countries of the region and their international development partners have talked up grand Initiatives to address the issue of climate change and building resilience. Among the well-known Initiatives that have contributed to high expectations and to less sustained results are several international initiatives to address food security as a global issue including:

- The Greater *Horn of Africa Initiative of the USA* in the mid. 1990, espoused by President Clinton's administration with promises to alleviate the severe food shortage in the HoA in particular, through preventive measures, food stocking, and investments to augment reliable and sustainable food production, particularly by addressing adverse climate change impact.
- The October 2014, leaders of global and regional institutions pledge of financial assistance for countries in the HoA region totaling more than \$8 billion to promote stability and development in the Horn of Africa, and especially to provide the tools to address food insecurity among the vulnerable communities.
- The EU initiative for the Horn of Africa to open new opportunities for successful development in the region, and to provide several initiatives and active engagement to strengthen its potential and capacities for inclusive development to be realized.
- The financial support China provided to the African continent to improve economic infrastructure that has had material impact on preparedness and prevention of drought related, including the FOCAC pledge of investing US\$60 billion.

The story of the adverse impacts of climate change on the HoA sub region is a classic example of the lack of fairness or equity in global affairs where power prevails, over the rule of law and justice delivery for sound decision making. Global response to the impact of climate change

on food security has not been fully addressed on account of the fact that the largest burden falls disproportionately on those who have the least power to react against it or adapt to it.

Global governance of the climate change, according to J. Hattingh “*does not focus on the principles of fair decision-making in the international context about the targets that should be pursued to mitigate or adapt to climate change. Many of those who will be most harmed by climate change have contributed little to causing the problem; many of those who emit the most GHGs are least threatened by adverse climate change impacts; and those that are most vulnerable to its harm are often least able to pay for adaptation measures needed to protect them from the adverse impacts.*”¹

6. Conclusions and recommendations

a. Conclusions

Food insecurity and the effects of climate change on food security are more pronounced in the Horn of Africa than anywhere else in the world. This study thus analyses the trend of food insecurity and vulnerability to food insecurity, and the effect of climate change on food security in the region. The PoU indicates that undernourishment and hence food insecurity in the HoA is one of the highest in the world. Undernourishment in the four countries of the HoA for which data is available is more than three times the global level. As of 2017, hunger in these countries is one in every three people, which is much higher compared to one in every nine people globally. Moreover, the decline in prevalence of undernourishment registered for one and a half decade seems to have ended and hunger was slowly on the rise starting 2014.

Vulnerability to food insecurity is extremely high. Every year millions go hungry. This is becoming structural through time as most of the poor are concentrated in the arid and semi-arid ecosystems and, as a result of population growth, have been forced to cultivate increasingly marginal land more intensively, with less opportunity to replenish the soil. Though land holding is small and highly fragmented in the region and a growing number of landless laborers join the rural labor market every year, while diversification into non-farm economic activities is extremely low.

Building resilience of people, and economic and environmental systems. Climate change-induced food insecurity in the Horn of Africa can have substantial development implications and the stakes are high. It is critical to take a long-term perspective on how to reduce vulnerability and to increase drought-resilient human and socioeconomic development efforts among the region’s poorest communities. Thus far, interventions made in the countries of the Horn to build resilient livelihood system were not only highly fragmented but were also small in coverage and most were at pilot level implemented by different government and non-government organizations. The approach lacked systemic view where interventions can be coordinated, lessons learned and possibly streamlined to existing development programs. This calls for an integrated regional response to build resilience.

¹ Johan Hattingh on “whose climate, which ethics? On the Foundation of Climate change law. In Climate change: international law and Global governance. Edited by Oliver C. Rappel, et al. 2003.

The final questions that I would conclude with are:

What can the Member countries do to enhance food security?

What can the IGAD REC/Secretariat do to support food security in the HoA?

What should the role of international Community in supporting addressing the effects of climate change in the HoA?

b. Recommendations for policy and programming

This section provides recommendations for strengthening and improving interventions that seek to build resilience and reduce the negative impacts of drought on food security.

- ***Collaborate on joint actions and investments:***

Although significant power and responsibility rest with national governments, the countries of the HoA should find ways to collaborate on joint actions and investments. Institutional capacity building to strengthen analytical capacities are needed to support decision making process on food security, climate change and resilience building. Continental and Regional bodies such as the AU and IGAD need to play a key role in promoting and implementing such joint actions and investments.

- ***Integrated climate-response system (ICRS) for resilience building***

To minimize impact of climate change and variability on the development efforts of local communities in the Horn of Africa, it is essential that synergies among the multiple objectives of sustainable development, poverty reduction, disaster risk reduction and climate change adaptation are harnessed for greater adaptation and mitigation. This calls for establishment of **integrated climate-response system (ICRS)** for resilience building as opposed to different standalone programmes.

The ICRS for resilience building should also be able to deliver a range of programmes in accordance with country needs and link with early warning and emergency systems. It aims additionally to foster participatory planning and social accountability throughout the system in order to strengthen the voices of all stakeholders towards more responsive programming. Specifically, the following are some of the recommended policy actions or programmes to be considered under the ICRS.

- **Holistic and flexible resilience building programmes:** Given the complexity of impact of climate change, designing holistic and flexible resilience building risk management strategy—with a range of policy instruments appropriate for different sections of the society affected by climate change enhances livelihood resilience. The holistic approach entails a way of enhancing agricultural production supported by sharing risks associated with production related to climate change, stabilizing markets and reducing negative impacts when climate change occurs,

and diversifying livelihood bases i.e., investing on resilience building through a mixture of activities that build income and assets is significantly more cost effective and sustainably improves rural livelihoods in the face of climate change.

- **Use existing government structure:** By building on existing government systems, integrated climate response system needs to be strengthened and placed within a ministry or agency that has political clout and convening power to enable it to facilitate integration across other ministries and agencies. Lack of coordination clearly seen in almost all countries in the Horn is due to absence of coordinating unit. Even in the countries that have set up units or agencies to coordinate climate change responses at the national level, coordination tends to be undermined by a lack of political clout or convening power. Building the coordination system under the powerful ministries helps not only to coordinate the climate response activities but also creates opportunity to streamline climate change responses to existing development programmes.
- **Capacity building:** For a long term planning in climate change adaptation and resilience building, availability of human resource in adequate number and technical capacity is one of the critical issues. Poor staffing and lack of technical capacity have been identified as one of the main challenges in climate adaptation and resilience building efforts. This has often resulted in poor strategic planning and ineffective policies and low integration of research evidence in the planning process. For implementation of ICRA and appropriate adaptation and mitigation technologies, advancement in both staffing and technical capacity should be a prior agenda.