Emergency preparedness and early recovery for enhanced food security in Africa

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ABSTRACT

The purpose of this study is to assess the practical meanings of emergency preparedness and early recovery in relation to improved food security in Africa. Emergency preparedness is addressed at the global level as well as in two different country cases: Malawi and South Sudan. A framework for action is proposed regarding how to succeed with preparedness and early recovery for improved food security in Africa. Norway has an important role to play in the global humanitarian system, not only as a significant funder and supporter of increased efficiency, but also with comparative advantages in certain fields such as peace negotiations, institutional collaboration and capacity development, gender equality, climate change, climate smart agriculture and seed security. Different kinds of tailor-made social protection programs will increasingly make their way into future emergency preparedness efforts for enhanced food security. A low hanging fruit for resilience building could be to assist with social protection to avoid seasonal hunger and thereby reduce vulnerability to possible disasters.

INTRODUCTION

Climate change contributes to increased vulnerability and risk of food scarcity, food insecurity and hunger. Droughts, flooding, storms and heat call for disaster preparedness and effective emergency responses, including early recovery linked to long-term development. Vulnerability to disasters is closely related to poverty and in many African countries the majority of poor and vulnerable people rely on agriculture for their livelihoods. In addition to climate change, violent conflicts are an important cause of food insecurity and livelihood disruptions. In many countries with violent conflicts, farmers are prevented from cultivating their land the way they did prior to the conflict, due to lack of security or collapses in input supply systems, transport and marketing. Food is also used as a weapon in violent conflicts, fuelling the conflicts and causing immense suffering to civilians. Food relief is often provided in situations of natural disasters or violent conflicts, but the way food relief has been distributed has often been contested. Although humanitarian interventions are usually successful when it comes to saving life, the road to
recovery and long-term development often faces huge challenges for the involved people, governments and the international community. Emergency preparedness includes both humanitarian responses and recovery for long-term development, as formulated in the mandate of the World Food Program (WFP).

In the preparations for the World Humanitarian Summit in May 2016, the UN Secretary General called on global leaders to commit to five core responsibilities, namely global leadership, humanitarian norms, leaving no one behind, ending needs for humanitarian action and investment in humanity. Early recovery is a concept that is increasingly referred to in relation to humanitarian action. One definition of early recovery is:

> Recovery that begins early in a humanitarian setting. It is a multi-dimensional process, guided by development principles. It aims to generate self-sustaining, nationally owned and resilient processes for post-crisis recovery. Early recovery encompasses the restoration of basic services, livelihoods, shelter, governance, security and the rule of law, environment and social dimensions, including the reintegration of displaced populations.¹

According to UNDP (2016), early recovery is an important element of effective humanitarian intervention and prepares the ground for an ‘exit strategy’ for humanitarian actors by establishing the base on which nationally led development takes over. For food and agriculture, early recovery means focusing on measures towards future harvests and local food supply as early as possible in the humanitarian intervention process.

The purpose of this study is to assess the practical meanings of emergency preparedness and early recovery in relation to improved food security in Africa. To be prepared for possible disasters and early recovery, possible measures include risk analysis, vulnerability assessment, preparedness planning, crop insurance, food storage, technical change in agriculture (e.g. drought resistant cultivars), early warning, direct livelihood support, protection of assets, subsidies, food relief, support to local markets and service provision, local security initiatives, social protection programs (e.g. cash transfer), school feeding and starter packs (HLPE 2012).

STUDY QUESTIONS AND APPROACH

This study address the following questions:

- What is the theoretical and practical status of emergency preparedness and early recovery for enhanced food security in Africa?
- What are the lessons learned from different kinds of emergency preparedness and early recovery measures for improved food security in Malawi and South Sudan?
- What role could Norway play in increasing global and national emergency preparedness and early recovery capacity to advance food security in Africa?

The study is a desk review of literature, reports, webpages and media articles of relevance for emergency preparedness and early recovery in the field of food security. Malawi and South Sudan are selected as cases to illustrate two different emergencies, namely violent conflict and climate change. For the Malawi case, the study benefits from the NFR funded humanitarian policy research project Courting Catastrophe. In South Sudan, violent conflicts have contributed towards serious hunger and an acute need for food relief and humanitarian action. In Malawi, the last two years of first flooding and then El Niño-induced drought have contributed towards hunger and consequently increased the need for international humanitarian assistance (Oxfam 2016; WFP 2016).

DEFINITION OF CONCEPTS AND FRAMEWORKS

Before addressing the study questions, definitions of key concepts may prove useful. Probably needless to say, food security is defined according to the World Food Summit 1996 definition: Food security 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 preference for an active and healthy life. FAO break food security down into food availability, food access (economic and physical), food utilization and food stability. Regarding
preparation, the UNISDR definition is used: The knowledge and capacities developed by
governments, response/recovery organizations, communities and individuals to effectively
anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard
events or conditions.\textsuperscript{2} The preparedness concept includes not only anticipating and
responding to a disastrous situation, but also recovering from it. Emergency preparedness
is based upon risk analysis and requires long-term engagement in accordance with disaster
risk reduction frameworks. Disaster is defined as a serious disruption of the functioning of a
community or a society involving widespread human, material, economic or environmental
losses and impacts, which exceeds the ability of the affected community or society to cope
using its own resources.\textsuperscript{2}

Although recovery is included in emergency preparedness, it is still useful to state how it is
defined in this report: The restoration, and improvement where appropriate, of facilities,
livelihoods and living conditions of disaster-affected communities, including efforts to reduce
disaster risk factors.\textsuperscript{3} Accordingly, early recovery is recovery that begins early in a
humanitarian setting. Early recovery includes the restoration of basic services, livelihoods,
shelter, governance, security and the rule of law, environmental and social dimensions,
including the reintegration of displaced populations.\textsuperscript{3} In recovery processes, national
ownership and resilience are recognized as important elements for post disaster recovery.
Resilience is defined as the ability of a system, community or society exposed to hazards to
resist, absorb, accommodate to and recover from the effects of hazards in a timely and
efficient manner, including through the preservation and restoration of its essential basic
structures and functions (Sendai Framework for Disaster Risk Reduction 2015-2030). In
relation to emergency preparedness, another important concept is vulnerability defined as
the conditions determined by physical, social, economic and environmental factors or
processes, which increases the susceptibility of a community to the impact of hazards (Sendai

The UN-negotiated and approved Sendai Framework for Disaster Risk Reduction 2015-2030,
provides guiding principles for global actors and countries’ commitment and work on risks

\textsuperscript{2} www.unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf
\textsuperscript{3} www.humanitarianresponse.info/en/clusters/early-recovery
and disasters as well as a vehicle for cooperation among Governments, organizations and civil society. The *Sendai framework* developed from the previous *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters for Disaster Reduction*. The primary responsibility lies with States to prevent and reduce disaster risks, including through cooperation. Wahlstrom (in the Sendai Framework foreword) notes that whilst the Hyogo Framework focused on disaster management, the Sendai Framework focuses more on disaster risk management (*Sendai Framework for Disaster Risk Reduction 2015-2030*). Increasingly, managing risks appears to be a priority both in low- and high-income countries. Today’s uncertainty around the possible negative impact of climate change on food availability and food affordability in sub-Saharan Africa, increases the risks of hunger and food insecurity. The increase in people adversely affected by violent conflicts during the last decade, has also contributed towards amplified focus on disaster risk management and emergency preparedness.

**FOOD SECURITY UNCERTAINTIES**

There are worrying uncertainties around how the global food security situation will develop in the decades ahead. Climate change might contribute towards serious reductions in yield levels in Sub Saharan Africa and threaten the continent’s food availability and affordability. Violent conflicts contribute towards increases in food insecurity and more people in dire need of food relief. According to FAO (2015), around 800,000 million people are food insecure in the world today. In sub-Saharan Africa, one out of four persons is food insecure (FAO 2015). In addition to food insecurity measured as insufficient access to calories, malnutrition is adding to the problem. Malnutrition such as deficiencies in iron and vitamin A, is estimated to affect around 2.0 billion people worldwide (IFPRI 2016). Over the last 60 years, food insecurity has been explained by different factors such as insufficient production or food scarcity combined with huge population increases (dominant view in the 1950s-1970s) and, later, other factors such as poverty, economic failure, policy failure, structural injustice and inequality have been added as explanations (Haug 2011). There is currently general agreement among international organizations such as FAO, WB, IFAD, UNDP, WFP, IFPRI, OECD and EU, that food security is a poverty
problem, and that violent conflicts add to the problem. According to Cadieux & Slocum (2015), food insecurity rests on inequitable distribution of resources and uneven power relations. Recent developments including, not least, climate change have contributed to Malthusian food scarcity scenarios getting increased attention. According to FAO, food production has to increase by 60% by 2050 to fill the growing demand for food. More and more countries are concerned about how to be prepared for a future that is difficult to predict with regard to global food supply and food security. In Norway, there are discussions on when the country should re-establish food reserves to be prepared for possible future food crises.

When it comes to the causal relationship between food security and violent conflicts, the views differ as to what degree food insecurity causes violent conflicts. There is, however, broad agreement that violent conflicts contribute towards more food insecurity. In the world today, there are more displaced people than ever previously recorded - around 65.3 million refugees and internally displaced people (UNHCR 2016). Over the last 10 years, the number of people in need of emergency assistance has increased from 30 million people to 130 million people (OCHA 2016). UN organizations including WFP are only able to attract around half of the funds needed to deliver on necessary humanitarian assistance. Researchers at the Center for Global Development (CGD) in Washington DC ask the pertinent question *is emergency aid broke or broken* (Talbot and Barder 2016).

In addition to political instability and violent conflicts, climate change is expected to adversely affect food production, food security and poverty in a negative direction in the decades ahead (IPCC 2014; Hallegatte *et al.* 2016; IFPRI-Hunger Index 2015). According to Hallegatte *et al.* (2016), the number of drought days could increase by more than 20% in most of the world by 2080, which would negatively affect 50-80% of the people in the world. In general, poor people are more negatively impacted by drought than the average person. Climate change threatens to worsen vulnerability, poverty and food insecurity. Climate change’s impact on agriculture is already happening and is expected to increase in the future (Hallegatte *et al.* 2016; IPCC 2014; Challinor *et al.* 2016).
STATUS OF EMERGENCY PREPAREDNESS IN RELATION TO FOOD SECURITY: GLOBAL LEVEL

In the international UN language, preparedness is defined to include the three activities *anticipate, respond to and recover from* a disaster/hazard. At the global level, several institutions, policies, strategies and guidelines address emergency preparedness. Annual *World Risk Reports* rank countries according to estimated disaster risk (*World Risk Index*). Norway is ranked with a 2.20% risk while Vanuatu score highest on risk with 36.72% (World Risk Report 2015). The World Risk Report 2015 focuses on food security and the interaction between food security and disaster risks (World Risk Report 2015). The World Risk Report (2015) emphasis that *hunger and food insecurity have negative effects on disaster risks because they cause a significant increase in the vulnerability of the relevant population to natural hazards, and on the other hand, disasters can significantly reduce food security and cause hunger*.

The Sustainable Development Goals (SDGs) provide a global action framework for how to work towards achieving sustainable development. In particular, Goal 2 on zero hunger, Goal 13 on climate change and Goal 16 on peace, justice and strong institutions are relevant for emergency preparedness and food security. The *zero hunger goal* states that by 2030, hunger and all forms of malnutrition should be ended (UN 2015). There is no way that hunger can be eradicated without also addressing violent conflicts and climate change.

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<th>SDG 2 Zero hunger: End hunger achieve food security, improve nutrition, and promote sustainable agriculture (UN 2015):</th>
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<tr>
<td><em>By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.</em></td>
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<tr>
<td><em>By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.</em></td>
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• By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

• By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

• By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

• Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.

• Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

• Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

The Rome-based food and agricultural institutions FAO, IFAD and WFP, conclude in a joint report that a combination of social protection and pro-poor agro-investments will be necessary to zero out hunger in a sustainable way (FAO/IFAD/WFP 2015). They estimate the cost of achieving zero hunger at US$ 267 billion per year during 2016 to 2030, which is
approximately 0.3% of world output in 2014 (FAO/IFAD/WFP 2015). The World Food Program is the biggest humanitarian organization in the world with the mandate of providing food relief or cash transfers in relation to crisis. WFP is also involved in long-term post-conflict development activities such as nutritional support towards women and children, school feeding and food provision in long-term refugee camps.

An important funding mechanism for humanitarian action is relation to food is the UN's Central Emergency Response Fund (CERF) that was established ten years ago. CERF has as annual target to reach around US$ 500 million, though Ban Ki-Moon recently called for a doubling of this amount due to acute needs. About 25% of activities funded by CERF work towards food security. In addition to CERF, there are also country-based pooled funds (CBPFs). The pooled funds, through CERF and CBPF, are managed by OCHA (UN’s Office for the Coordination of Humanitarian Affairs). The top donors to CERF are UK, Sweden, Norway, the Netherlands and Canada. Norway’s support to CERF in 2016 amounted to NOK 380 million. Overall, Norway has increased its humanitarian budget by around one billion from 2015 to 2016, a total amounting to almost NOK five billion. According to Norad, 9.3% (NOK 3.2 billion) of the total development budget went to relief activities in 2015. The figure below gives an overview of donor support to CBPFs and funding received by different countries in 2015.

5 www.regjeringen.no/no/aktuelt/pm_koordinering/id2478081/
In the presentation of the World Risk Report (2015) that focuses on food security, the scientific director of the report (Garschagen 2015) stated: \textit{The goal of policy and practice must be to make food security more resistant to crises and, at the same time, to include it as a central element of disaster prevention}. There is no doubt that food security has an important role to play in disaster prevention as well as in emergency preparedness and early recovery. What does this mean in practical terms? What should countries do? Who should
be responsible for preparedness planning and implementation at country level? Moreover, not least, how should funding be secured for implementing preparedness plans? Contextual understanding is important to make emergency preparedness meaningful for countries and their people. Below, lessons learned from emergency preparedness in Malawi and South Sudan are reviewed and discussed.

**EMERGENCY PREPAREDNESS: THE MALAWIAN WAY**

What does emergency preparedness mean for Malawi? Malawi is a typical agrarian economy where agriculture contributes towards around 40% of the GDP and 80% of export earnings (EAD/UNDP 2016). Out of a population of around 16 million people, 85% live in rural areas (NSO 2015). The country is politically stable with democratic elections that lead to regular changes in government. Malawi is country that has experienced frequent floods and droughts. Between 1967 and 2014, Malawi experienced 7 serious droughts and 19 floods that heavily influenced the nation’s food security situation (EAD/UNDP 2016). In 2015, record rainfalls caused flooding that contributed to more than a million people being displaced. (Government of Malawi 2015). In 2016, El Niño-induced drought contributed to a new state of disaster with huge increases in food insecurity leaving almost half of the population in need of food relief (Oxfam 2016; WFP 2016).

Malawi has tried different emergency preparedness strategies, among them strategic grain reserves. Since this strategy is not really relevant to the current situation, it is just mentioned in this report without going into detail, besides the summary below, which describes Malawi’s experience with strategic grain reserves.
Malawi: Strategic Grain Reserve management (HLPE 2012)

A parastatal agency, the Agricultural Development and Marketing Corporation (ADMARC), operated a Strategic Grain Reserve (SGR) in Malawi for decades. In the late 1990s, management of the SGR was contracted out to the National Food Reserve Agency (NFRA), which was mandated to ensure national food security but also to operate on a cost-recovery basis. The NFRA took a commercial loan to buy maize in 1999. Following two bumper harvests, the SGR was fully stocked in early 2001, with 180,000 tons of maize, and the International Monetary Fund advised the Government of Malawi to sell off this stock, which was starting to rot. To reduce SGR operating costs and repay the NFRA loan, the IMF also advised the government to replenish the grain reserve to a much lower level, by purchasing only 60,000 tons of maize after the upcoming harvest. Accordingly, the entire SGR was sold. However, the 2001 farming season throughout southern Africa was severely affected by a drought that reduced the national maize harvest in Malawi by 32%. This meant that not only was the NFRA unable to buy maize to replenish the SGR – either locally or from neighbouring countries – but the SGR was empty precisely when it was most needed to address a national food crisis. Maize prices rose to five times their seasonal averages, and the government had no capacity to intervene to stabilise supplies. Compounded by a delayed humanitarian response – partly because donors suspected corruption in the grain reserve sale – a famine followed that claimed up to 85,000 lives. The government reacted by over-stocking the grain reserve, which peaked at 266,000 tons in 2003, and was then run down at a loss. These experiences led to a decision to separate the NFRA stock into two – an emergency SGR that was used only for free distribution, and a second stock that is sold by ADMARC to stabilise prices across seasons. However, efficient management of both grain reserves continues to be compromised by the unpredictability of harvests from one year to the next. In 2005, Malawi purchased a call option on South African maize, at one third the cost of commercially imported maize. This option was successfully invoked to supplement domestic maize supplies after a drought threatened to trigger another food crisis.

Regardng climate change, IPCC (2014) estimates that maize-based farming systems might experience yield losses from 18-22% in East Africa by 2050. Channing et al. (2014) advise Malawi to develop smart and forward-looking adaptation policies, as climate change will likely result in reduced crop yields followed by food insecurity and hunger due to estimated food price increases. The Ministry of Environment and Climate Change Management (Environmental Affairs Department) has developed a National Climate Change Investment Plan for 2013-2018 (NCCIP). The main aim of NCCIP is to develop institutional capacity, protecting and conserving the environment and natural resources, and increasing the productivity based on national resources. In this plan, the government recognizes the vulnerability of the country to climate change and the need for resources to
address the climate change challenge. The plan is meant to guide investment in this field.

NCCIP identifies four key priority areas:

- **Adaptation Investments such as integrated watershed management, increased agriculture production for resilience-building and enhanced disaster risk management.**

- **Mitigation investments such as waste management and pollution control, REDD and energy saving technology.**

- **Research and technology transfer in relation to e.g. climate smart agriculture.**

- **Capacity development in climate change.**

At the district level, the District Council will be responsible for implementing the plan, whilst implementation will be through the Village Development Committee at the village level. Funding for the plan should derive from tax revenue, donor support and international climate funds. The Green Climate Fund has approved funding for a huge project in Malawi that includes early warning systems and strengthening of the agriculture advisory service. The total budget for NCCIP is US$ 954.5 million over six years. In addition to the Ministry of Environment and Climate Change Management, Malawi also has a Department of Disaster Management Affairs (DoDMA) and a National Disaster Preparedness and Relief Committee (NDPRC) that are heavily involved in emergency preparedness, food security and early recovery.

Based on lessons learned from the 2015 floods, the Malawian Government suggests the following areas of future priority (Government of Malawi 2015; DoDMA 2015):

- **Improve and adhere to planning and forecasting.**

- **Improve and strengthen flood warning and early warning systems.**

- **Strengthen stakeholder coordination between DoDMA and other internal institutions and external actors (e.g. NGOs).**

- **Need for emergency response operation centres (safe place for women and children).**
• *Strengthen preparedness, more efforts towards preparedness and less emergency response.*

The main recommendation after the 2015 flooding was to give increased priority to emergency preparedness to decrease the need for disaster management. As a strategy for emergency preparedness, Malawi has chosen to use social protection in the form of input subsidies to increase production and food security, and to decrease vulnerability and poverty. Input subsidies have been accompanied by policy reforms. The different input subsidy programs have contributed towards a doubling of agricultural productivity in the period 1997 to 2014, and substantial improvements in food and nutrition security (Carr 2014; Arndt et al. 2014; Pauw et al. 2014; NSO 15). A Starter Pack Program was established in 1998 followed by the Extended Targeted Input Program in 2002/03 (Sjaastad et al. 2007). In 2004, Dr Bingu wa Mutharika was elected as President and with him followed changes in the agricultural policy. ADMARC was re-nationalized (though still allowing competition from private traders), and a new input subsidy program, FISP, was introduced (Sjaastad et al. 2007). FISP was targeted towards the poorest half of the farmers and the subsidy covered a large share of the costs (i.e. 90%) to enable poor farmers to afford to pay their part of the inputs.

During the decade from the growing season 2004/05 to 2014, Malawi avoided serious hunger and was even able to produce a maize surplus that was exported to Zimbabwe. Malawi’s score in the Global Hunger Index has shown considerable improvements since the 1990s. The Global Hunger Index combines multiple indicators such as availability of calories, child nutrition and child mortality into one index number, which falls within the range 0-100. Malawi’s score has advanced from 58.9 in 1990 to 27.3 in 2015, which is slightly better than Tanzania and much better than Zambia (IFPRI-Global Hunger Index 2015). Malawi has been able to reduce child mortality from 1 in 4 in 1990 to 1 in 13 in 2013, and has improved in all child nutrition indicators monitored through the MDG process.7

The Malawian government has taken on much of the costs in relation to input subsidies (FISP). In 2005/2006, no direct donor support to the program was reported (Dorward and Chirwa 2014). In the following years, direct donor support varied from a lowest level of 5% of total costs in 2013/14 to a highest level of 32% in 2011/12 (Dorward and Chirwa 2014). FISP has been a costly program for the Malawian government, and the lion’s share of public spending on agriculture has gone into funding FISP. In 2014, agriculture accounted for approximately 20% of government spending and FISP received around 70% of this amount (Conroy 2014). Funding of the input subsidy program has indeed been a great challenge.

Input subsidy as an emergency preparedness strategy has not only been costly, it has also been, and still is, heavily contested from sustainability-, market liberalistic- and environmental points of view. According to Haug and Wold (forthcoming), the following arguments illustrate the ‘in-favour of subsidies narrative’ and the ‘sceptical narrative’:

<table>
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<th>The in-favour of subsidies narrative</th>
<th>The sceptical narrative</th>
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<tr>
<td>Demand driven: What farmers want, what voters use their votes to get</td>
<td>Not economic viable - too costly and crowd out other agro-investment initiatives; not in accordance with principles of market liberalism</td>
</tr>
<tr>
<td>Successful social and technological innovation</td>
<td>Not environmental sound: Integrated soil fertility measures needed</td>
</tr>
<tr>
<td>Increased agricultural productivity</td>
<td>Have not really reduced rural poverty and food insecurity</td>
</tr>
<tr>
<td>Improved food security and reduced poverty</td>
<td>Will not be enough to meet future climate change challenges</td>
</tr>
<tr>
<td>National political ownership – not donor driven: What Malawi “wants” (both the government and the people)</td>
<td>Too politicized: “buy voters”</td>
</tr>
<tr>
<td>Leakage at somewhat acceptable level – targeting satisfactory</td>
<td>Too high leakage and corruption – not successful enough in targeting “the poorest”</td>
</tr>
<tr>
<td>Other alternatives are few, more costly and more labour demanding – the alternative is hunger and food relief</td>
<td>Benefits do not outweigh costs</td>
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The input subsidy program, although contested and costly, has worked well as an emergency preparedness strategy in Malawi, as productivity amongst smallholders has increased and food security has improved. Regarding costs, food relief might have been a more costly option than subsidizing inputs, not least regarding the human suffering that comes with hunger. However, vulnerability to flooding and drought, as the last two years have shown (2014-2016), is still a huge problem. In the years to come, input subsidy programs alone will probably be neither a sufficient nor sustainable solution, but they could still be part of an emergency preparedness strategy. During a FISP Symposium in July 2014, Malawi’s Minister of Agriculture, Irrigation and Water Development, Allan Chiyembekeza called for a discussion on how the program could work better, pointing out that official government estimates show that average maize yields have more than doubled since the introduction of FISP, contributing to rapid agricultural Gross Domestic Product (GDP) growth of around 10 percent per annum between 2005 to 2011.

Malawi has followed through with their subsidy program as an emergency preparedness strategy, in spite of the critique from Market liberals (who, in general, are against subsidies because they distort the market), Environmentalists (who do not find fertilizer sustainable or environmentally sound and would rather go for organic or integrated soil fertility approaches) and Development actors (who are uncertain about the impact on poverty and food security, and worried about leakage and corruption as well as long-term viability, [Haug and Wold forthcoming]). The last three presidents of Malawi have defended fertilizer inputs in several fora; for example Bingu wa Mutharika, speaking at Boston University, stated that Western countries say African governments should not subsidize agriculture, but Western governments subsidize their own farmers. Similarly, Malawi’s Minister of Agriculture, Irrigation and Water Development, Allan Chiyembekeza, whilst referring to a World Bank report, stated that the government does not entirely agree with the report and will go ahead as planned irrespective of what the Bank says about the need to scale the input subsidizes down and out.

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8 www.bu.edu/today/2010/can-africa-feed-itself/
9 http://timesmediamw.com/world-bank-belittles-fisp/
The Malawian Government has strong ownership towards the policy reform (ADMACR was re-nationalized) and the input subsidy program, and has put a lot of prestige into its success. Voters demanded fertilizer subsidy and as such empowered the government to continue with subsidies, which meant disregarding advice from experts and donors. FISP has increased productivity and improved food security, but to meet future challenges related to climate change, emergency preparedness strategies should probably seek to move to the next phase. In addition to input subsidies, emergency preparedness should seek to expand in areas such as:

- Diversifying crops, drought resident cultivars and better seed/seedlings supply (e.g., cassava, sweet potatoes, cowpeas, groundnuts, vegetables).
- Diversifying farming practices e.g. by promoting different kinds of agro-ecological and climate smart agriculture.
- Explore different options for early warning systems\(^\text{10}\) and fair insurance arrangements,\(^\text{11}\) e.g. index based weather insurance.\(^\text{12}\)
- Expand the Agricultural Sector Wide Approach (ASWAp) regarding community storage systems for food and seeds.
- Increase irrigation options, e.g. dams and protection of catchment areas.
- Ensure equitable access to land and water to decrease vulnerability of small holders.
- Support social security programs (such as input subsidies, food subsidy programs including school feeding, cash transfers or work programs).
- Reduce poverty by increasing job opportunities outside the agricultural sector.

The main challenge regarding the above is the cost of these measures. Both for the Government and for smallholders, these measures will demand costly investments. At the farmer level, changing farming practices to a more climate-smart direction will in most cases demand either capital or increased labour demands (Kirrane et al. 2012).

\(^{10}\) The Green Climate fund has approved to fund a climate adaptation program in Malawi that includes early warning.

\(^{11}\) Insurance schemes tried in Malawi supported by Dfid, have been criticized for exploiting farmers as 10% of expected farm income has to be paid in premium and as loan interest (Chinsinga et al. 2012).

\(^{12}\) Reliable weather data to base such system on is currently lacking.
Smallholders are short of both capital and labour. The Committee on World Food Security (CFS)’s High Level Panel on Expert (HLPE 2012) assess different social protection programs for enhanced food security and rate input subsidies as having generally positive impacts. Clarke and Dercon (2016) suggest that international support in years of disaster could enhance emergency preparedness in countries like Malawi that face climate change challenges. They recommend that pre-financed plans be put in place, such as the Hunger Safety Net Program in Kenya. This program includes about 400,000 registered pastoralists where the poorest 100,000 get regular cash transfers in ‘normal’ times and the remaining 300,000 in times of extreme drought, with the government contributing the budget for ‘normal’ years, and Dfid in the extreme years, according to pre-agreed rules. The question is what responsibility the international community is willing to take on in relation to emergency preparedness in low-income countries adversely affected by climate change.

EMERGENCY PREPAREDNESS IN SITUATIONS OF VIOLENT CONFLICTS: SOUTH SUDAN

People in conflict-affected states are up to three times more likely to be undernourished than those who are living in more stable developing countries. The most recent projections suggest that approximately half of the global poor now live in states characterized by conflict and violence. The Food and Agriculture Organization of the United Nations (FAO) and the World Food Program (WFP) have a strong interest, and a potentially important role to play, in supporting transitions towards peace (www.fao.org/emergencies/resources/documents/resources-detail/en/c/427222/).

South Sudan is in a very different situation than Malawi due to political instability and violent conflicts. The country is rich in natural resources such as water and fertile land, and has fisheries and large stocks of cattle. The potential for increased food production should be very promising. However, after gaining independence in 2011, the country has become affected by a conflict, which has resulted in serious food insecurity and hunger. Recent fighting in 2016 has caused problems with food supply and food prices have exploded in Juba as well as other places in the country. The president Salva Kiir from the Dinka group and the former Nuer vice president Riek Machar have not been able to provide leadership for a prosperous start for the new country. Violent conflicts between Dinka supporters of Kiir and Nuer supporters of Machar have led to at least 50,000 people being killed, more
than two million people displaced and around six million people dependent upon food relief (The Guardian 2016). UN peacekeeping forces (UNMISS) have tried to protect civilians and open its military bases to offer such protection. However, both lack of resources and mandate have made it difficult for the UN to succeed in its activities in the country. According to the New York Times (August 2016), 13,000 UN peacekeeping troops and police officers, have been unable to protect civilians even in UN run refugee areas (the protection of civilians sites). An additional 4,000 peacekeepers were granted by the Security Council in August 2016 to protect Juba (New York Times 2016).

The World Food Program is active in South Sudan in providing food relief, but is only able to reach less than half of the people in acute need. Out of the estimated six million people, currently in need of assistance, as many as 4.8 million are facing severe hunger. According to WFP, their operation is harshly underfunded as they have received only 40% of the funds they need (The Guardian, August 2016). Their operations are facing numerous problems in relation to insecurity such as warehouses being looted, and a lack of permits for airdrops. During the last 2-3 years with violent conflicts, there have been some positive signs such as agricultural production picking up around Juba to supply the town with food. Some foreign farmers have invested in land and food production for sale. The World Food Program tries to buy food locally to stimulate agricultural production. But transport of food is severely hindered by the lack of roads. An area east of the Nile (Magwe) has been producing surplus food, which WFP s and transports to deficit areas. Private traders are also picking up food in this area, rather than importing food from Uganda. However, with the worsening situation in 2016, it is not known how the current security situation is in Magwe County. The Guardian (August 2016) reports that, in parts of South Sudan that have been less seriously affected by the war such as Northern Bahr el Ghazal, drought and pests have contributed towards crop failure and an increased shortfall in agricultural production in 2016. The import of food from Uganda has drastically reduced because of the insecurity situation, resulting in what The Guardian refers to as skyrocketing food prices.

What does emergency preparedness mean in a situation as dramatic as in South Sudan? Preparedness, as stated earlier, is about anticipating, responding to and recovering from a
disaster. Hence, there is a whole range of measures that could be taken with regard to South Sudan, and many of these are currently under way:

- Conflict resolution (international negotiations).
- Conflict management (e.g. UN and AU peace keeping).
- Discussions regarding to what degree South Sudan should be put under UN administration (re: Kosovo, East-Timor).
- Development efforts in agriculture to decrease rural vulnerability and poverty in peaceful pockets of the country (including better infrastructure such as roads).
- Improved efficiency in humanitarian action (food relief or cash transfers for food security).
- Ensure food relief does not outcompete the market for local farmers; Use cash transfers or food vouchers as much as possible. If there is a lack of food availability in the local community, food relief may be better than cash transfers.
- Maintaining a certain level of normality, for example through international institutional collaboration and capacity development (e.g. higher education/NORHED).
- Strengthen the capacity of central administrative institutions (e.g. Ministry of Finance that collaborate with Statistics Norway [SSB]).
- Support South Sudan refugees in neighbouring countries (food, cash, education, jobs).
- Post-conflict preparedness for early recovery in food and agriculture: Agricultural starter packages are an efficient way of promoting early recovery. For example, in relation to assisted return or resettlement, FAO's crop kit (3 types of seed, 1 hoe, one sickle) or FAO's vegetable kit (7 types of seed, 1 hoe, 1 rake, 1 sickle) can contribute towards early recovery, more so if food or cash transfer is provided whilst farmers wait for their first harvest.
- Ensure seed security by providing affordable high quality and locally adapted or locally produced seed.
• Utilize resources such as cattle (cattle increased in number during the war between Sudan and what is now South Sudan), though cattle is rarely slaughtered for food or income, but used to pay ‘bride price’. The provision of small ruminants such as goats and sheep can be an efficient assistance to recovery regarding food security. Veterinary service is an important factor for pastoralists (e.g. cooling facilities for vaccines).

• Promote peace by addressing cattle raiding. Civil society organizations are currently working with young people in cattle-raiding camps, giving support to local communities to find their own solutions for peace.\(^\text{13}\)

In spite of the above measures, approaching emergency preparedness in a violently conflicted country such as South Sudan appears to be extremely difficult. The violence and internal war has to end in order for recovery and post-conflict development to succeed. As long as president Kiir and former vice-president Machar encourage violence and war, recovery for improved food security has a long way to go. The former president of Nigeria, \textit{Olusegun Obasanjo} has suggested that the way forward for South Sudan is to put the country under administration by the UN and AU, and find ways to “retire” president Kiir.\(^\text{14}\) Such administration has occurred in Kosovo and East-Timor. However, the international community is reluctant to go for such a contested solution. Rather, some international actors seem to be decreasing the priority of South Sudan because of the hopelessness of the current situation.

In the midst of the terrible internal war, institutional collaboration between Norway and South Sudan is ongoing. Norwegian universities have collaboration with the University of Juba funded by the NORHED program. South Sudanese students receive their education in Norway. South Sudanese researchers meet their international colleagues in neighbouring countries such as Kenya, Uganda and Ethiopia as well as in Norway. Capacity is being developed, education is going on, and the university in Juba is open. At the Ministry of


Finance in Juba, collaboration is ongoing with Statistics Norway (SSB). The Ministry is undertaking macro-economic planning, price-monitoring and keeping the ministry going. Meetings take place in Kenya, as SSB staff are currently not allowed to travel to Juba, but that does not stop the collaboration. This way of maintaining a certain level of normality and capacity under an extreme situation is a way to prepare public institutions for the recovery phase that at some point will come. In the meantime, regarding food security, food relief in the form of cash (when food is available in the local markets) and in kind (when there is no food in the local markets) is what the international community can do. Raising funds for humanitarian actions and getting as much out of each dollar as possible to make up for the shortfall in international funding, is a way of contributing to reduce suffering amongst the civilians.

Integrated Food Security efforts in South Sudan
(http://www.fao.org/emergencies/crisis/south-sudan/en/)

As part of FAO’s Emergency Livelihood Response Program for 2016, in the worst-hit states (Central and Eastern Equatoria, Jonglei, Lakes, Unity and Upper Nile), FAO is focusing on distributing emergency livelihood kits (including crop and nutrient-dense vegetable seeds and minimal-harm tools), while in calmer states (Northern and Western Bahr el-Ghazal, Warrap and Western Equatoria), FAO is concentrating on protecting and boosting food production by improving local availability of quality seed and planting materials and facilitating technology transfer through farmer field schools. The risk of livestock disease outbreaks has been heightened by the conflict as the cold chain system for vaccine storage and distribution has broken down, and non-traditional livestock movements lead to the intermingling of vaccinated and unvaccinated herds. Unusual livestock movements and concentrations also risk worsening tensions between pastoral and farming communities, as well as raise concerns about increased cattle raiding. FAO is distributing vaccines and veterinary supplies to enable rapid preventative vaccination campaigns, while equipping and retraining community-based animal health workers to provide basic, on-the-move health care to migrating herds.

**HOW TO SUCCEED WITH PREPAREDNESS AND EARLY RECOVERY?**

How to establish successful systems for emergency preparedness and early recovery will depend upon the context. There is no blue print, ‘silver bullet’ or ‘right answer’. However, decades of experience with different approaches, actors and coordination efforts provide
indications on what might be effective emergency preparedness measures for the future. Emergency preparedness is capacity to *anticipate risk, respond to and recover from a disaster*.

The framework below gives an overview of what emergency preparedness might include in practice in a situation of drought (caused by climate change) and in a situation of violent conflict. It should be added that hunger and food insecurity risks might simultaneously include both climate change and violent conflicts. Risks of a worsening of the food and nutrition security situation might also have other causes other than climate change and violent conflicts. Breisinger *et al.* (2015) found that food and nutrition insecurity are of increasing concern in conflict areas, and they estimate that 46% of the global population live in countries with conflicts. However, they have a rather wide definition of conflict and include *conflicts caused by ethnic tension, religion, discrimination, poor governance, competition over land and natural resources, population pressure, poverty, youth unemployment as well as food insecurity*. According to Breisinger *et al.* (2015), droughts contributed to the Syrian conflict as availability of wheat and barley decreased and food prices increased. Below, a framework for preparedness action aimed at enhanced food security is proposed:

<table>
<thead>
<tr>
<th>Climate change (drought)</th>
<th>Violent Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anticipate Hunger and Food insecurity risks</strong></td>
<td><strong>Risk analysis &amp; Early warning systems:</strong></td>
</tr>
<tr>
<td><strong>Develop a plan and ensure institutional capacity</strong></td>
<td>- Meteorological data (rainfall)</td>
</tr>
<tr>
<td></td>
<td>- Food production forecast (food availability)</td>
</tr>
<tr>
<td></td>
<td>- Food price monitoring (food affordability)</td>
</tr>
<tr>
<td><strong>Risk analysis &amp; Early warning systems:</strong></td>
<td>- Political instability</td>
</tr>
<tr>
<td></td>
<td>- Food production forecast (food availability)</td>
</tr>
<tr>
<td><strong>Risk prevention measures:</strong></td>
<td>- Food price monitoring (food affordability)</td>
</tr>
<tr>
<td></td>
<td>- Climate change adaptation/mitigation including climate smart agriculture</td>
</tr>
<tr>
<td></td>
<td>- Conflict resolution (international negotiations)</td>
</tr>
<tr>
<td></td>
<td>- Conflict management (e.g. UN)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Response to Hunger and Food insecurity</strong></th>
<th><strong>Development efforts to decrease rural vulnerability &amp; poverty</strong></th>
<th><strong>Development efforts to decrease rural vulnerability &amp; poverty in peaceful pockets of the country</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implements plan at individual, national and international level, coordinate implementation</strong></td>
<td><strong>Insurance schemes</strong></td>
<td><strong>Insurance schemes</strong></td>
</tr>
<tr>
<td><strong>(make actors accountable for funding the implementation of the plan)</strong></td>
<td><strong>Grain reserves (food relief, price control)</strong></td>
<td><strong>Grain reserves (food relief, price control)</strong></td>
</tr>
<tr>
<td><strong>- Individual level:</strong> changing production systems, decrease in meals, selling assets, distress migration**</td>
<td><strong>- External national/international assistance e.g. Social protection:</strong></td>
<td><strong>- External national/international assistance:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- Food relief, cash transfer, school feeding</strong></td>
<td><strong>- Establishment of refugee camps to save life (food/cash transfers)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- Food subsidy, input subsidy (seed fertilizer), public work</strong></td>
<td><strong>- Support to internally displaced people (food/cash transfers)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- Infrastructure (irrigation, dams)</strong></td>
<td><strong>- Security measures to protect rural livelihoods, food production and food security where possible</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- If insured, use insurance payment</strong></td>
<td><strong>- Humanitarian interventions that do not destroy local food production and markets</strong></td>
</tr>
<tr>
<td><strong>Continue to address root causes of hunger and food insecurity</strong></td>
<td></td>
<td><strong>Continue to address root causes of hunger and food insecurity</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Early recovery from hunger and Food insecurity</strong></th>
<th><strong>Individual level:</strong> rebuild assets, re-establish production systems and food security</th>
<th><strong>Individual level:</strong> return or resettlement, rebuild assets, re-establish production systems and food security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Continue implementing plan and monitor impact of plan</strong></td>
<td><strong>External national/international assistance:</strong></td>
<td><strong>External national/international assistance – reconstruction/post-conflict development:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- Food relief/cash transfer for recovery with aim of phasing out</strong></td>
<td><strong>- Return of IDPs or resettlement of people in camps (areas must be safe e.g. landmines removed)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>- Starter pack and/or input subsidy for agro-investment and food</strong></td>
<td><strong>- Food relief/cash transfer for</strong></td>
</tr>
</tbody>
</table>
In general, current humanitarian interventions are successful in saving lives and avoiding famines compared to historical events (de Waal 2015). Less people die of hunger in relation to disasters now than was the case in the last century/centuries (de Waal 2015). However, increases in the need for humanitarian interventions and insufficient funding responses have led to questions regarding to what degree humanitarian action is adequately efficient in eradicating hunger and food insecurity. Barder and Talbot (2016) ask to what degree the humanitarian system is broke or broken:

*The humanitarian system is either broke or broken. If the system is simply broke, then the problem is that donors are simply not providing enough money. Last year, humanitarian agencies appealed for $15 billion more in funding than they received, a deficit, which is set to grow larger this year. The alternative view is that the humanitarian system is broken—that is, in need of fundamental reform. The majority of humanitarian aid is spent on long-lasting crises rather than short-term emergencies, and the system does a poor job of helping people to move from dependence on humanitarian aid into safer, more productive lives. Large international agencies often fail to work with local governments and civil society partners. There are few independent needs assessments, and little rigorous evidence about what works. Agencies are mandated and organised to distribute supplies rather than give people control over*
their own lives and building markets by giving people cash. There is little information about what happens to the money: the humanitarian system is far behind the development system on improving aid transparency.16

Barder and Talbot (2016) state that there is no consensus on whether the humanitarian system is broken or broke. In their view, the system is broken as expressed in the above quote, and they suggest that insurance financing could offer a solution that could save lives, save money, and save time. Different kinds of insurance schemes have been tried with mixed experience. The two main challenges appear to be who should pay for the insurance and how to measure when insurance payments should be realized. Smallholder farmers cannot be expected to cover the cost of private insurance and risk exploitation, as the experience from Malawi indicates (Chinsinga et al. 2012). However, there are also positive experiences with using insurance approaches as the public insurance scheme among pastoralists in Northern Kenya reports (HLPE 2012). The focus should not necessarily be on to what degree insurance schemes are good or bad, but rather on the design, e.g. who should pay the cost. Weather indexed insurance schemes could be part of the solution for smallholder farmers hit hard by drought, if designed in the right way. The main challenge is to find ways of making the humanitarian system both less “broken” and less “broke”.

**BETTER PLANNING FOR EARLY RECOVERY**

To what degree can better planning and implementation of plans provide a mechanism for making humanitarian action more effective and reduce suffering in relation to hunger and food insecurity? Clarke and Dercon (2016) suggest that pre-agreed, pre-financed, rules-based plans that are implemented immediately after disasters without any need for further political decisions would be the way to go. According to Clarke and Dercon (2016), the following three elements are common in relation to disasters:

Journalists and media love a crisis, and have incentives to try to break the next crisis story.

Politicians appear to receive no appreciation from voters for spending on preparedness, but votes increase from responses, which give them a chance to show leadership.

When disaster does strike, there is a slow, tactical and fragmented response, with donor countries asking themselves “shall we respond? What are other countries doing?”

Clarke and Dercon’s (2016) focus on planning, is indeed core to the emergency preparedness discussion. To what degree is it possible to change the current system of humanitarian assistance being offered in an ad-hoc way, according to which crisis gets the most attention in the media or by the international community? If the system could be changed to a more ‘standby’ financing model, the response could be quicker, better coordinated and could probably contribute more to resilience. However, it would be difficult to get political support for pre-financed plans. Emergency preparedness plans exist, but when crises hit, there is a lack of willingness to put funds on the table to finance the implementation of the plan. The problem is not a lack of planning exercises, but a lack of understanding on how to follow up on the plans that have been developed, including the release of funds.

**SOCIAL PROTECTION FOR FOOD SECURITY**

An important element of eradicating hunger and food insecurity in relation to both humanitarian action and long-term development, is social protection programs. Recent findings suggest that cash transfer is an efficient way of reducing hunger and food insecurity and preferred over food relief. A study by ODA of 200 social protection programs found that cash transfer reduces poverty, increases food expenditures and dietary diversity, while employment outcomes are either unaffected by cash transfer or lead to increases in
employment rate (Bastagli et al. 2016). In refugee camps, people are often passive dependents upon handouts; if refugees receive cash, they could better interact with the host community and contribute towards economic growth in the area (Taylor et al. 2016). As food relief often destroys the market for local farmers, cash transfer on the other hand provides a market for local farmers. However, it should be noted that in some instances, food might not be available in a disaster struck area and food relief would be needed.

Social protection to enhance food security can be designed in different ways. In a report from Global Committee on Food Security’s (CFS) High Level Panel of Experts on Food Security and Nutrition (HLPE 2012), the following forms of social protection are described:

- Input subsidies such as fertilizer and seed.
- Crop and livestock insurance, for example weather indexed insurance schemes.
- Public work programs.
- Food subsidy.
- Grain reserves.
- School feeding or other types of supplementary feeding.
- Conditional cash transfer or Unconditional cash transfer.
- Food transfer/food relief.
Social protection programs pose many questions in relation to targeting, dependency, graduation, accountability, and possible leakage. Nevertheless, social protection has yielded very positive results with regard to decreasing hunger and food insecurity as the example below from Ethiopia suggests:

**Ethiopia: Productive Safety Nets Program (HLPE 2012)**

The Productive Safety Net Program (PSNP) is one of the largest social protection interventions in Africa, reaching 8 million food insecure Ethiopians in 2011 through two components: public works (temporary employment) for households with labour capacity and ‘direct support’ (unconditional cash or food transfers) to labour-constrained households. The overarching objective is to reduce Ethiopia’s dependency on annual emergency food aid appeals, by building community assets through public works and providing predictable transfers to households over multiple years, thereby facilitating their graduation from food insecurity to food self-reliance. The PSNP has been implemented since 2005 in food insecure districts, defined as districts that had received food aid continuously for the preceding three years. The target group is chronically food insecure households, who are identified through a combination of objective criteria (e.g. households with no means of support), community screening and self-targeting. Although the PSNP is successfully targeting the rural poor, budget constraints mean that not all poor and food insecure households have been reached. A recent evaluation uses a generalized propensity score method to examine the impact of the duration of PSNP participation. Matching households with five years of program participation to those that had participated for only one year and received much lower levels of transfers - the PSNP improved food security by 1.05 months. When the program began, participating households reported, on average, 3.6 months of food insecurity each year, so this represents an attributable improvement of 30%. Further, the PSNP protected food security and asset levels in the presence of repeated shocks. Households living in areas that experienced a minimum of two droughts but also received PSNP payments for two or more years were able to maintain their existing levels of food consumption. This provides persuasive evidence that public works in Ethiopia has contributed to protecting and improving household-level food security.

Social protection in the form of cash transfer is being discussed as an effective and cheap way to transfer money directly to people in need, rather than spending money on technical assistance or in-kind aid (CGD 2016). In a panel discussion at CGD (2016) it was noted that although cash transfer shows good results on food insecurity, the support for cash transfers is *modest and fragile* because donors regard it as risky because money could be spent unwisely.
SEASONAL HUNGER AND RESILIENCE

Seasonal hunger is a well-known phenomenon within food insecurity. For example, a three-month hunger period at the beginning of a growing season before the first crops can be harvested is common in many African countries. In order to build resilience in preparation for disasters, seasonal hunger should be addressed. Season hunger contributes to increased vulnerability and make it difficult for smallholder farmers to build resilience. In the hunger period, it is easy for farmers to become indebted due to the urgency of requiring food. Payback time is often after harvest, which makes it difficult for the smallholders to move out of a vicious circle of debt and food insecurity. Vaitla et al. (2009) describe seasonal hunger as a neglected problem that can easily be solved:

- **Most of the world’s acute hunger and undernutrition occurs not in conflicts and natural disasters but in the annual “hunger season,” the time of year when the previous year’s harvest stocks have dwindled, food prices are high, and jobs are scarce.**

- **We know what works in fighting seasonal hunger and undernutrition: there are identifiable policy and program successes in contexts around the world, but they often operate on a small scale and in isolation.**

- **Community-based interventions to treat acute undernutrition and promote growth of preschool children are examples of successful interventions that should be scaled up.**

In the figure below, Vaitla et al. (2009) suggest a framework for how to address seasonal hunger that combines agricultural livelihood development with social protection and emergency assistance. This framework provides a tool for how to address food insecurity both in relation to long-term development as well as short-term emergency assistance. As the case of seasonal hunger illustrates, there are good reasons for approaching food insecurity from different angles and trying to initiate actions that combine the long-term with the short term for resilience-building and emergency preparedness.
Currently, Norway is discussing its domestic preparedness in relation to possible international food shocks. The food price crisis of 2008 initiated a discussion on to what degree Norway should rebuild its national grain reserves for national preparedness reasons. The result of this discussion is not yet decided, but the debate shows that emergency preparedness is a global question being discussed in high-income countries as well as in low-income countries. Internationally, the UN negotiated Sendai framework for disaster risk reduction (2015-2030) provides the entry point as to how countries should address disaster risks, emergency preparedness and recovery. The Sendai framework for...
*disaster risk reduction (2015-2030)* includes both natural and manmade disasters and prioritizes:

- **Understanding disaster risk.**
- **Strengthening disaster risk governance to manage disaster risk.**
- **Investing in disaster risk reduction for resilience.**
- **Enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction**

Recognizing the *Sendai Framework*, Norway could go in different directions regarding its international approach and support. Currently, Norway is a strong supporter of institutions working on emergency preparedness and recovery, with the aim of reducing hunger and food insecurity, such as the World Food Program (WFP), International Humanitarian Funds and the Green Climate Fund (Green Climate Fund 2015). Within the international humanitarian system, Norway should continue to be a strong supporter, as well as contributing towards efficiency gains and improvements in the performance of the system.

The humanitarian system is under pressure both because of huge funding deficiencies, but also because of several shortcoming in its performance, regarding the *broke or broken* discussion (Talbot and Barder 2016). To what degree pre-financed plans such as that Dfid’s chief economist suggests (Clarke and Dercon 2016) are the right way to go, should be further discussed. In addition, the role for different kinds of insurance schemes could be further assessed by Norway, recognizing that such schemes must prove beneficial to smallholder farmers, and not exploitative.

Norway has comparative advantages in certain areas such as peace negotiations (also being the country that grants the Nobel peace prize). Violent conflicts are devastating for food security. Conflict resolution is crucial for eradicating hunger and improving food security. Post-conflict development and recovery should focus on reconstructing agriculture in a way that makes food available and affordable as fast as possible after a violent conflict has ended. According to Hilde Frafjord Johnson¹⁷, the international community often fails to

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¹⁷ Book launch: Den vanskelige freden: Når fred ender i ny krig.
follow up a successful peace agreement with the needed support: *we clap for the peace agreement and turn our attention to the next crisis*. Another field where Norway has a comparative advantage is in *gender equality*, which is an important dimension in preparedness and recovery. Yet, another field is *seed security*. Hosting and managing the *Svalbard Seed Vault* provides an important mechanism for both acknowledging the importance of seed as well as seed assistance in specific situations. Although the *Svalbard Seed Vault* is a more of a back-up solution or a doomsday insurance, than a direct recovery mechanism for seed supply, the normative meaning of this vault is of great importance as regard seed security worldwide. ICARDA\(^{18}\), one of two CGIAR dryland research centres with its headquarter in Aleppo, Syria, recently asked to take out seed from the *Svalbard Seed Vault* to re-establish gene banks in safer places in Lebanon and Morocco. The ICARDA gene bank in Aleppo is still functioning, with a diesel-operated generator keeping the temperature down, and a few local workers still on duty. In post conflict reconstruction, locally-adapted and high-quality seed is of crucial importance in getting agriculture back on its feet. In different recovery actions, such as starter packs or subsidized inputs, seed availability and affordability are of vital importance for food production and food security. ICARDA has already contributed substantially to supplying high-quality seed to agricultural recovery activities in Afghanistan.

Institutional development is another area where Norway has a long record of successful support. The previous example of support to CGIAR centres such as ICARDA proves extremely important in relation to both climate change and food security, including food security in conflict and post-conflict situations. CGIAR is an international system consisting of 15 research centres around the world that do both natural and social science research on agriculture, food, nutrition, poverty, and the environment. Having such internationally-funded capacity contributes to emergency preparedness as well as early recovery, as the seed example illustrates. Institutional collaboration in the field of food and agriculture also includes university collaboration that contributes towards developing capacity needed for preparedness and recovery.

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\(^{18}\) ICARDA is currently displaced with a temporarily headquarter in Lebanon as well as housed with national partners in the region (e.g. in Morocco)
The sustainable development goals (SDGs) provide an entry point on how to address preparedness and recovery in relation to climate change, violent conflicts, hunger and food security. It is difficult to envisage how to eradicate hunger and malnutrition by 2030 if violent conflicts are not being resolved/managed and climate change is not addressed. Social protection, in particular cash transfer, will probably increase in importance, towards achieving the zero hunger goal. It is important to add that emergency preparedness should address root causes of vulnerability to food insecurity in order to secure lasting solutions to humanitarian crises (Eriksen 2016). Eriksen (2016) underlines that poorly designed humanitarian interventions risk enhancing and reproducing local vulnerability patterns. Pluralistic strategies are needed to address the complexity in root causes of food insecurity. The figure below illustrates different strategies and measures to address food insecurity with environmental sustainability, gender and power relations as crosscutting dimensions.
CONCLUSION

The goal of policy and practice must be to make food security more resistant to crises and, at the same time, to include it as a central element of disaster prevention (Garschagen 2015).

Norway has an important role to play in the global humanitarian systems, not only as a significant funder and supporter of increased efficiency, but also with comparative advantages in certain fields such as peace negotiations, institutional collaboration and capacity development, climate change, climate smart agriculture and seed security. Norway can also play an important role in ensuring that gender equality is forcefully included in emergency preparedness and early recovery. Different kinds of tailor-made social protection programs will increasingly make their way into future emergency preparedness efforts for enhanced food security. A low hanging fruit for resilience building could be to assist with social protection to avoid seasonal hunger and thereby reduce vulnerability towards possible disasters. Also, different ways of constructing public-funded insurance schemes could be a way of preventing the occurrence of hunger crises and thereby form an important part of emergency preparedness. Creativity and action are needed, to make sure the world is set on a better emergency preparedness track.
REFERENCES


