Anticipatory Action Pilot – Malawi

Concept Note – Draft 3, 20 November 2020

Image by News in Africa

Summary: Objective of the pilot

Over the past five decades, Malawi has experienced more than 19 major floods and 7 droughts, with these events increasing in frequency, magnitude and scope.

In August 2020, Malawi started to develop an anticipatory action framework (pre-agreed model + money + action) to mitigate the humanitarian impact of predicted localized dry spells and floods across the country.

The framework will use objective trigger(s) to release financing from the UN Central Emergency Response Fund (CERF) into a plan of feasible and impactful interventions that will be implemented before the shock –or its peak– to reduce the crisis.

The purpose of this concept note is to lay the foundations for the pilot and help guide the process forward. The note reflects evolving views of the UN Country Team and OCHA, who are committed to complete the task at hand by early 2021, thereby ensuring sufficient lead time for anticipatory action. This note is a living document, open to necessary revisions as more partners, including government counterparts and NGOs, engage with the pilot.

Ultimately, the objective of the pilot is to provide a collective, more effective, timely and dignified humanitarian response ahead of a severe drought and/or flooding in Malawi.

The pilot is to achieve this by methodically combining three components: 1) A robust forecasting embedded in a clear decision-making process (the impact model). 2) Pre-agreed action plans that can fundamentally alter the trajectory of the crisis (the Action Plan). And 3) Pre-arranged finance (the money for interventions).

In other words, the pilot will lead to an anticipatory action framework which establishes when and on what basis action will be triggered for a specific event; how much funding will go to which agency; and what activities the funding will be used for.

Rationale: From a needs-based to a risk-based approach to predictable problems

Building on excellent work by humanitarian partners, OCHA embarked on a multi-year portfolio of pilots to collectively learn and demonstrate how coordinated anticipatory

action could work at scale. This initiative follows the United Nations humanitarian financing reform agenda that the Emergency Relief Coordinator (ERC) laid out in the Casement Lecture series[1].

The ERC called for the humanitarian sector "(…) to move from today's approach, where we watch disaster and tragedy build, gradually deciding to respond and then mobilize money and organizations to help; to an *anticipatory approach* where we plan in advance for the next crises, putting the response plans and the money for them in place before they arrive, and releasing the money and mobilizing the response agencies as soon as they are needed".

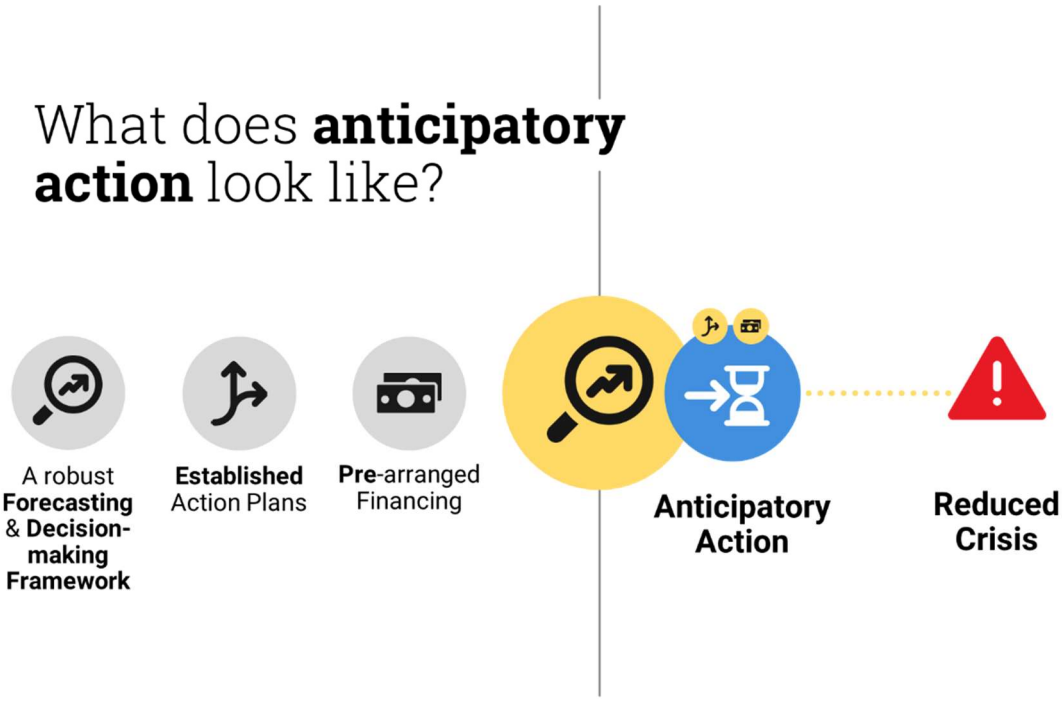
The concept in practice: "Anticipatory action frameworks"

To generate proof of concept, a pilot consists in the design and implementation at the country level of a formal mechanism called an "anticipatory action framework", which triggers the release of finance for the implementation of pre-agreed interventions to mitigate the humanitarian impact of a predictable shock.

In consultation with relevant agencies at the HQ level and key stakeholders in the field, OCHA selected Somalia, Ethiopia, Malawi and Chad to get ahead of drought, Bangladesh to get ahead of flooding, and the application of predictive tools like the Cholera Risk Model (CRM) to get ahead of cholera outbreaks. If a framework is triggered, the ERC will immediately release pre-arranged financing from the CERF to UN agencies leading the implementation of a pre-agreed anticipatory action plan. Ideally, CERF projects will be pre-designed and approved, including a detailed inclusion of NGOs as implementing partners where relevant.

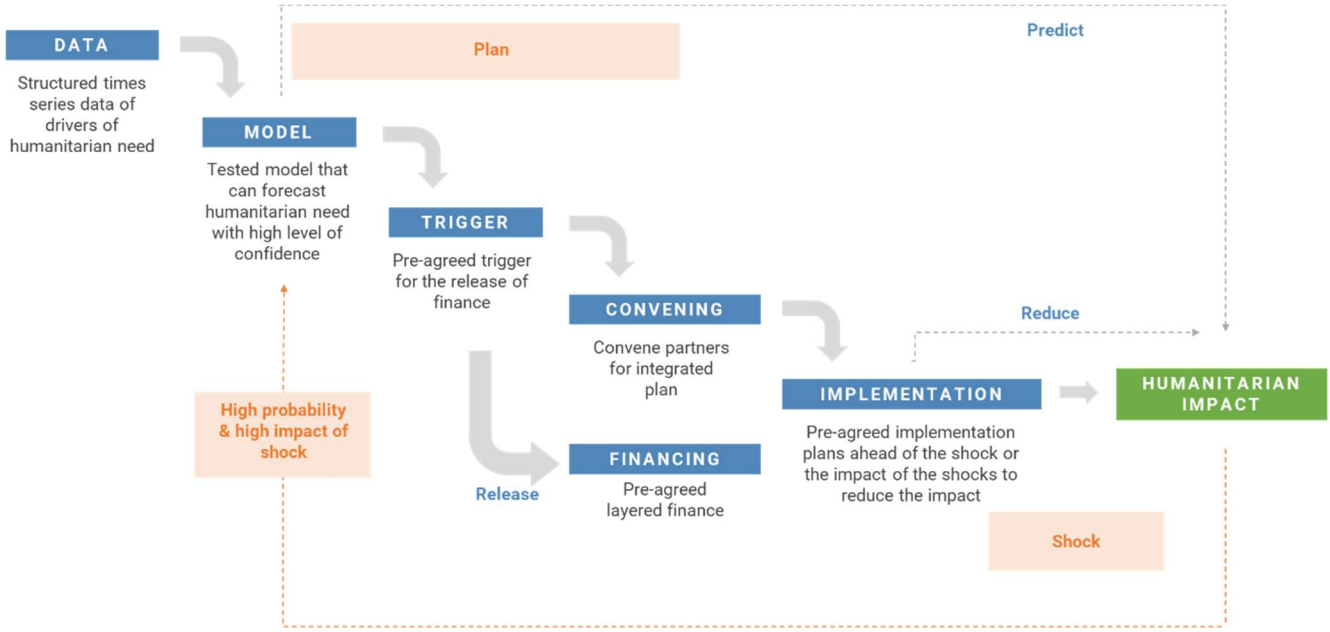
In summary, the task of designing an anticipatory action framework is straightforward: A country team, under the leadership of the Resident Coordinator, should set the rules for who gets how much money to do what based on which signal.

[1] Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, Mark Lowcock: A Casement Lecture: Towards a Better System for Humanitarian Financing, at https://reliefweb.int/report/world/under-secretary-general-humanitarian-affairs-and-emergency-relief-coordinator-mark-0. The USG provided an update on progress against the pillars of the Casement Lecture in December 2019: Mark Lowcock, Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator - Anticipation saves lives: How data and innovative financing can help improve the world's response to humanitarian crises, found at https://reliefweb.int/report/world/mark-lowcock-under-secretary-general-humanitarian-affairs-and-emergency-relief.



Logic

The pilot design and development process will follow the logic illustrated in this diagram:



Main design considerations and questions:

a) **Exposure:** Malawi is vulnerable and exposed to prolonged dry spells and floods, as well as to transboundary crop pests/disease and animal diseases. The pilot will focus on anticipating localized prolonged dry spells (the most frequent shock that affects most people on a yearly basis) and floods (to be determined based on the potential for flood forecasting).

b) **Humanitarian impact:** There is a high probability that if such a shock occurs, parts of the country will face severe humanitarian impact.

c) **The leading design question:** The objective of the anticipatory action framework is to reduce the humanitarian impact of a crisis. A key lesson learned from Somalia, Ethiopia and Bangladesh is that it helps to start the pilot design process by trying to answer to the following question: If the country team in Malawi knew there is a high probability that at a given point in time a prolonged dry spell (or a severe flooding event) will start, what interventions would the country team want to have implemented immediately in advance to mitigate the impact of the impending disaster?

d) **Rules-based decision framework and triggers ("the model"):** The pilot in Malawi will draw from available early warning systems, models or forecasting tools to predict the probability, timing and severity of the selected shock(s) and define the triggers for anticipatory action. These triggers will be embedded in a broader rules-based decision framework designed to:
   - Make "taking action" the default (i.e., increase automaticity);
   - Establish a clear activation protocol, including:
     - quick validation of the trigger (i.e., was the trigger breached as a result of a dry spell/flood?);
     - calibration of the pre-agreed action plan (i.e., rapid calculation of scale/cost and location of interventions);
     - and the mechanics of the allocation and approval/disbursement of funds.

   In the decision framework, the main function of the trigger will be to reduce uncertainty about <u>when</u> to act, not to completely eliminate uncertainty; in fact, it is impossible to predict the future with 100% certainty. A trigger should be decided which is feasible to monitor and timely to allow actions to be taken ahead of the hazard to mitigate the impact of the disaster. Therefore, the decision framework should:

- Avoid a failure to act. Setting the trigger too close to the shock may increase accuracy and certainty but compromise the window of opportunity for anticipatory action.
- Avoid acting in vain. Conversely, setting the trigger too far out from the shock allows too much uncertainty into the decision and may lead to the opposite problem of acting in vain.
- Allow acting on time on a no-regrets basis. Staying true to the objectives of the framework is a practical way of setting a trigger that is appropriate for anticipatory action (i.e., enough certainty + enough time for anticipatory action = maximum impact of interventions).

The search for indicators and triggers will require a bi-directional conversation between the objectives of anticipatory action and preferred interventions and the forecasting skill of predictive models/tools available. OCHA's Centre for Humanitarian Data and the UN technical experts in Malawi have started working on an analysis of the data landscape and existing indicators and tools (indicative examples):

- Climate forecasts at global/regional/country level
- Soil moisture
- Agriculture production surveys using satellite technology
- The African Risk Capacity's Africa Risk View (ARV) model
- FEWSNET
- IPC
- FAMEEWS
- EMPRES-AH
- WFP Map Room
- UNDP Participatory Integrated Climate Services for Agriculture (PICSA)
- World Bank data
- Others…

e) **Pre-arranged financing ("the money"):** The scope of a country's anticipatory action plan can –and in the case of Malawi, should– go beyond humanitarian interventions. If triggered, the ERC has decided to use CERF financing to fund a portion of the plan that would be compatible with the CERF's mandate (which is itself compatible with anticipatory action)[2]. It is worth noting that Malawi has

[2] Anticipatory humanitarian action: what role for the CERF? Moving from rapid response to early action. Florence Pichon, April 2019 at https://www.odi.org/sites/odi.org.uk/files/resource-documents/12643.pdf

requested CERF funding for climate-related shocks (prolonged dry spells and floods) four times in the last five years. The anticipatory action framework, however, may provide opportunities to crowd in additional finance for interventions that are more developmental in nature, such as scalable social protection or climate-resilient infrastructure to facilitate mobility, being two examples. If possible, CERF proposals should be developed as annexes, once the anticipatory action framework is completed and endorsed.

f) **Anticipatory action plan ("the implementation"):** A multi-sectoral anticipatory action plan owned and developed by the country team that is as detailed as possible with regard to the interventions, scope, scale, cost and timing needs to be approved. To develop this plan, the following questions will be considered:
   - Is there enough lead time for anticipatory action interventions to be implemented?
   - What are the most impactful interventions (i.e., to mitigate or fundamentally alter the trajectory of the crisis)?
   - Are those interventions appropriate to the context?
   - How to include voices of potential beneficiaries in the design of the framework?
   - Are implementing agencies operationally and administratively ready?
   - How to include implementing partners in the planning?
   - What risks and externalities could imperil the implementation of anticipatory actions?

   Interventions in Malawi could include (initial indicative suggestions):

   For drought:
   - Unconditional cash and scaling up of social safety nets
   - Distribution of quick maturing seed
   - Provision of fodder
   - Provision of livestock drugs and vaccines
   - Rehabilitation of water and irrigation infrastructure
   - Intensify farmer extension advisory support
   - Training on Livestock Emergency Guidelines Standards (LEGS)
   - Water harvesting interventions in drought-prone hotspots
   - Precision agriculture with drip irrigation and efficient technologies
   - Protection (e.g., prevention of SGBV, dignity kits, etc.)

For floods:
- Unconditional cash
- Safe storage of seeds and tools
- Evacuation paths for livestock and temporal shelter
- Feed for animals and provision of animal health services
- Pre-distribution of seeds for resumption of agriculture production right after the flood
- Land and water management intervention to mitigate risk
- Expansion of flood evacuation centers to reduce number of displaced persons sheltering (and disrupting public services) in schools and health facilities
- Rehabilitation/reinforcement of vulnerable infrastructure in flood prone areas (bridges, dykes, water points, irrigation schemes)
- Temporary relocation of vulnerable communities to upland areas (through temporary housing and mobile services)

g) **Crisis timeline:** Anticipatory action can reduce but not fully prevent a crisis. However, looking at previous crises (e.g., dry spells and floods in previous years) and planning for anticipatory action allows deeper insight into the way a crisis will unfold. Experience also shows that well-designed and executed anticipatory actions can lead to earlier and more efficient traditional humanitarian responses. That insight can be converted into a crisis timeline and help prepare and mobilize a much faster rapid response to humanitarian needs.

h) **Country-level leadership and capacity:** There is strong country-level leadership and buy-in for anticipatory action in Malawi, as well as technical understanding and experience by UN agencies and government entities in the use of data for crisis risk financing and management. The pilot will build on existing capacities and fit appropriately within the broader set of priorities and programs of the UN Country Team (UNCT).

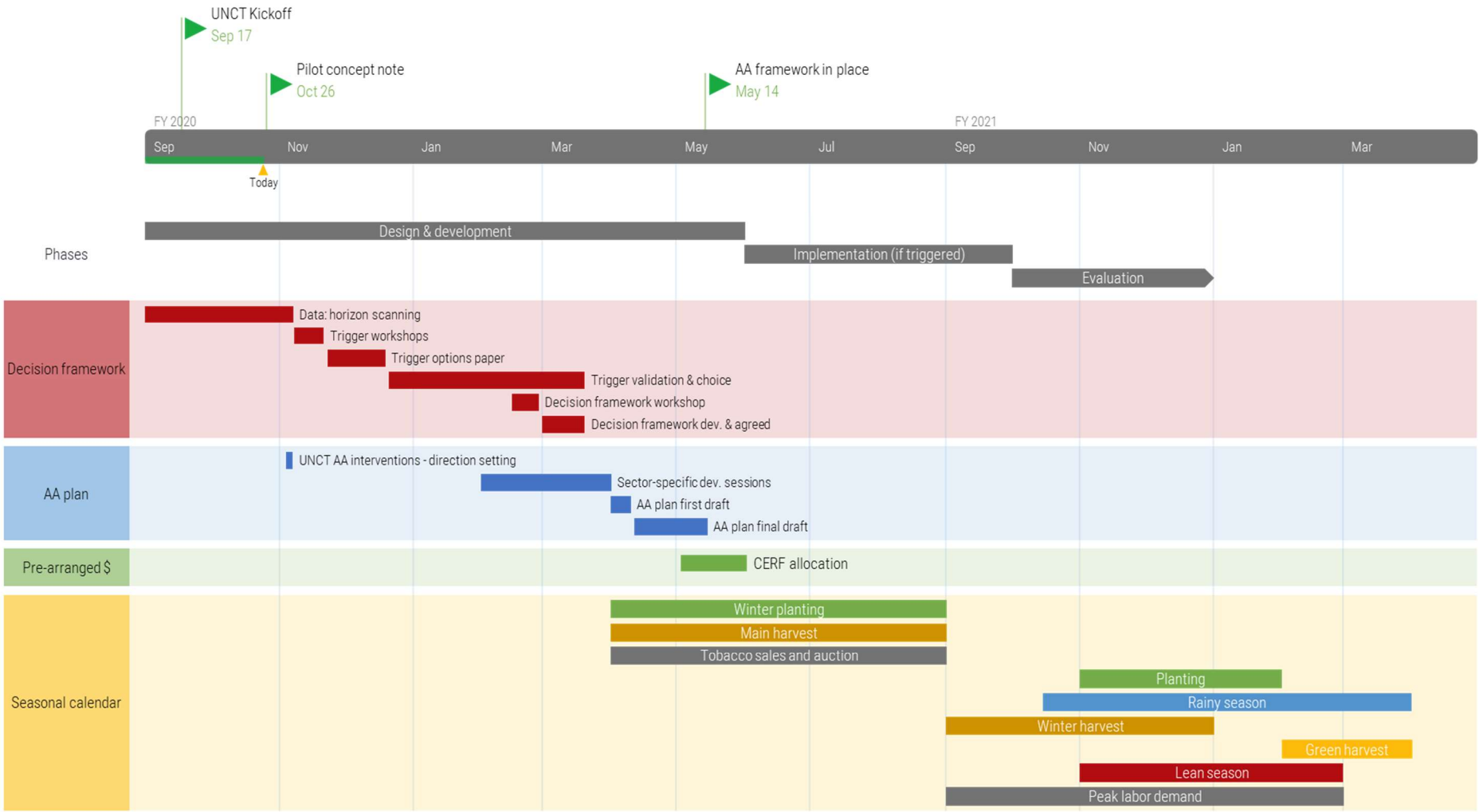
i) **No pilot project can be all encompassing.** Thus, the pilot for Malawi should be focused, pragmatic, realistic and feasible to mitigate the impact of droughts and floods.

Process

a) **Working arrangements/logistics:** In Malawi, the pilot is led by the UN Resident Coordinator (RC) and is a priority of the UNCT. The RC's Office (RCO) manages the process with a technical group of experts from UN agencies currently including WFP, FAO, UNDP, UNICEF and UNFPA. The RCO is coordinating the engagement from the outset of relevant government counterparts in the technical group (to be listed here once confirmed). A pilot rollout team from OCHA provides overall advice and works directly with the RCO and UN/government colleagues on the design and development of the anticipatory action framework. The team is led by the Humanitarian Financing Strategy and Analysis team (HFSA), and includes the CERF secretariat, the Centre of Humanitarian Data, the Operations and Advocacy Division (OAD), and the Regional Office for East and Southern Africa (OCHA ROSEA). A key function of the RCO and the rollout team will be to facilitate and manage the institutional and technical engagement, consultation and collaboration with local actors and communities, donors, and regional organizations, etc. Check-in meetings/calls will take place on a weekly basis between the RCO and the coordinator of the OCHA pilot rollout team to assign and follow-up on tasks and deliverables. Working meetings with larger group(s) will be scheduled as needed to advance design and development tasks, troubleshoot and provide status updates and briefings.

b) **Timeline:** The following timeline (see next page) indicates key milestones and activities needed to develop and put together the three components of the anticipatory action framework plotted against the seasonal calendar in Malawi. This is a management tool to ensure the mechanism is ready ahead of the times when the risk of shocks (dry spells/floods) is most likely to materialize.

Pilot timeline – Malawi



Commitment to learning and independent evaluation

The premises –and hypotheses for independent evaluation– are that anticipatory action is:

- Faster: An anticipatory action framework enables a comparatively faster and more cost-efficient response by catching a problem before it becomes a crisis.
- Cheaper: Anticipatory action is not just economically smart but also a more humane option because it responds to shifts in risk instead of waiting for evidence of widespread suffering and loss.
- More dignified: In doing so, anticipatory action helps protect resiliency and hard-won development gains.

Anticipatory action presupposes a commitment to pre-agreed planning and decision-making and depends on agencies being operationally ready to act within often very narrow windows of opportunity. For example, distributing cash several days ahead of a flood or providing drought resistant seeds before conditions get too dry. Any delay, either caused by a design flaw, a lack of operational readiness or by unforeseen externalities could render those actions irrelevant. Learning from what works and what doesn't is also a purpose of the pilot.

For this reason, a fundamental component of the pilot will be working through the policy, institutional and technical constraints and challenges that may emerge along the way while methodically documenting and learning from them, as well as evaluating the impact of anticipatory action in Malawi, as follows:

a) **Real-time learning and process review:** OCHA has a partnership agreement with the Centre for Disaster Protection to support the country team and OCHA with real time learning and a process review, enabling Malawi to, for example, carefully document the choices and trade-offs in using new or existing predictive models and selecting triggers; identifying interventions that are both feasible and impactful; increasing the margins for automaticity in the decision-making; adapting business processes to guarantee the timely approval and allocation of funds; leveraging local leadership, coordination and planning capabilities for anticipatory action across the country team and government counterparts; and the success in crowding in additional technical expertise and financing of institutions beyond the humanitarian sphere that have stakes in the game of managing crisis risk.

b) **Agency-specific monitoring and evaluation (M&E):** Each agency will use its existing monitoring systems to collect and track data on implementation progress and outputs achieved. This can show how beneficiaries were directly helped by the anticipatory action in Malawi. Each agency may incorporate and report on a few common questions/indicators on timing, output, reach, and challenges to be discussed. This could include questions to ascertain whether the anticipatory action had any impact, and if so, what impact. Whether the timing of the interventions made a difference and how. Whether the anticipatory actions can be compared to M&E results from previous, regular humanitarian interventions. Or whether there are any multiplier or spillover effects.

c) **Independent evaluation:** The Centre for Disaster Protection and the University of Oxford will also help evaluate the pilot in a rigorous way that combines traditional assessments of humanitarian assistance with the latest tools and insights of crisis risk financing and development economics. Depending on how vulnerability assessments and beneficiary selection are designed, an impact evaluation – the gold standard of evaluations – might be possible.

d) **Pre-pilot survey?** Somalia and Bangladesh activated their anticipatory action frameworks in 2020 and undergoing independent impact evaluations. An immediate suggestion based on these two experiences is to consider applying a baseline survey that incorporates the views of potential beneficiaries into the design of the anticipatory action framework and, specifically, the type of interventions that would be most helpful in staving off the impact of prolonged dry spells and floods. This suggestion along with other ways of involving local and national actors at the strategy development stage will be considered early on in the process.

Annex: Basic facts about Malawi

1. Malawi is extremely vulnerable and exposed to a range of climatic shocks in southern Africa. Malawi remains one of the poorest countries in the world, ranking 170 out of 188 countries (Human Development Index - HDI) and almost 75 percent of the population earns less than US$1.25 per day. Life expectancy stands at about 54.8 years and the country is marked by high levels of vulnerability including poor nutrition. HIV/AIDS is among the most intense in the world with a prevalence of 10.6

percent and over a million people living with the disease. The economy of Malawi is largely based on small scale, low productivity rain-fed agriculture, which makes it especially vulnerable to the impacts of climatic shocks. Over 80 percent of the population is dependent on rain-fed, smallholder agriculture for food, nutrition, and income security. The agricultural sector is Malawi's major source of economic growth and accounts for over 90 percent of export earnings. The mono-cropping of maize, a particularly drought-sensitive crop, leaves many highly exposed to increasing climate disruption, which is only predicted to worsen in coming years according to the Intergovernmental Panel on Climate Change (IPCC).

2. Agriculture (embracing crops, livestock, fisheries) remains the backbone of the economy and vital for the livelihoods of most Malawians including national food self-sufficiency and household food and nutrition security. Agriculture generated approximately 28 percent of the GDP, 65 percent of employment, and 63 percent of export earnings in 2015 (World Bank, 2017a, WTO, 2017). Considering the linkages of agricultural production and processing with input supply, trade and transport service, the broader agricultural food system contributes 44 percent to the GDP and generates 74 percent of employment (Thurlow, 2017).

3. Agriculture is also critical for Malawi's trade balance. While the agricultural trade balance is highly positive, the country faces a large overall trade deficit importing more than twice of its exports. The main agricultural exports include tobacco followed by sugar, tea, coffee and cotton. In turn, agricultural products only accounted for 10 percent of total merchandise imports in 2015 (WTO, 2017).

4. Crops dominate the agricultural sector, accounting for 17 percent of the GDP in 2014 followed by forestry (9 percent). The country's most significant agricultural commodities are maize, cassava, potato, peas, beans, rice, groundnuts, bananas, tobacco, and sugar, which together account for approximately 80 percent of the Malawi's agricultural production value (World Bank, 2016a). Livestock and fisheries sub-sectors are comparatively small, contributing 3% and 1% to national GDP, 10%, and 4% to agricultural GDP, respectively. However, their share in employment generation is much higher than their contribution to national GDP (IFPRI, 2016), and they are important sources of food and nutrition security.

5. The forgoing illustrates the immense contribution of agriculture to food security, nutrition and income of the majority of households in the country. In addition to supporting the crop sub-sector through draft power, livestock plays important role

in a household economy as a coping mechanism to the effects of the recent outbreaks of Fall Armyworm or the effect of climate change in a country in which close to 90% of the crop production is rain-fed.

6. The El Niño Southern Oscillation (ENSO) is one of the main systems that affects rainfall in Southern Africa. Conditions in the Indian and Atlantic Oceans also significantly affect rainfall systems in the region. Forecast analysis by climate forecasters tries to assess the combined impact of the different systems. The impact of El Niño will start before ENSO reaches peak values and will continue after the ENSO have returned to neutral conditions. El Niño is historically associated with increased chances of (a) increased rainfall in the northern part of the region and (b) depressed rainfall in the middle belt of the region and the southern half of the region. Several studies have shown a relationship between ENSO and food production in Southern Africa.

7. Productive impact: Historical records underline the clear link between El Niño events and drops in national maize yield. However, there is considerable uncertainty about the exact rainfall pattern and its impact on agricultural output. It is insightful to consider what happened in analogue years. In 2014/15 scientists were similarly uncertain about El Niño, and the region experienced an El Niño -like impact with cereal production 18% below the five-year average. Following a strong El Niño in 2015/16, cereal production dipped to 30% below the five-year average[i].

8. Malawi is highly likely to experience a severe humanitarian impact from El Niño-induced drought. Following the 2015/16 El Niño-induced drought, Malawi experienced its worst food security crisis in over a decade with 6.7 million people facing chronic or acute food insecurity and drops in local production of cereals of around 0.8 million metric tons. Historic evidence suggest that the humanitarian impact extends beyond food insecurity, with a risk of increasing levels of acute malnutrition in the short term and chronic malnutrition in the medium to longer term as well as difficulty in accessing water, higher school drop-out rates, increased incidence of communicable diseases, and rural-to-urban migration.

[i] Cane et al. (1994) found a strong relationship between Southern Oscillation Index (SOI) and maize yields in Zimbabwe. SOI and sea surface temperatures (SST) parameters are both related to seasonal rainfall in the SADC region (Matariria and Unganai, 1995; Mason et al., 1994). In El Niño seasons, during October-December, drier than average conditions affect mostly the border areas of Northeastern South Africa, Mozambique and Zimbabwe as well as southern Madagascar. Similar conditions affect southwestern South Africa though rainfall amounts are small. Vegetation shows similar patterns. These are typical of the late arrival of the rains and consequent severe delays in the start of the season. Midway through El Niño affected seasons, drier than average conditions are widespread, extending from Namibia across Zambia, Zimbabwe and into Mozambique and Northeastern South Africa and Swaziland. Extensive vegetation deficits are also evident. Long-term satellite data identifies the regions of northeastern South Africa, southern Mozambique and south and western Zimbabwe as those most strongly affected by El Niño events.