ANTICIPATORY ACTION

Building systems to anticipate drought in Zimbabwe

WFP
World Food Programme

SAVING LIVES
CHANGING LIVES

An impact assessment of WFP's capacity-strengthening interventions on national systems

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FOREWORD

Anticipatory Action (AA) is defined as acting before predicted hazards affect lives and livelihoods to prevent or reduce humanitarian impacts. It requires pre-agreed plans, reliable early warning information, and the rapid release of prearranged financing when a forecast trigger has been reached. In doing so, it bridges the gap between longer-term disaster preparedness, life-saving emergency response, and recovery and resilience efforts (figure 1).

From 2019 to 2023, the WFP implemented the Multi-Country Programme-to scale up Anticipatory Action for Food Security (MCP-AA4SS Phase I), funded by the Norwegian Agency for Development Cooperation (NORAD). Under this programme, WFP delivered AA directly to drought-affected populations in the Southern African region, while also providing nationalc actors with AA capacity-strengthening for drought response[1].

In Zimbabwe, WFP supports the development and mainstreaming of an AA system with the aim of moving towards proactive risk management. It enhances the capacities of stakeholders to anticipate drought events through defined risk thresholds, anticipatory actions and prearranged financing. Particular focus has been placed on including drought-affected populations in these processes, so that AA systems are user-centric, effective and sustainable.

These systems were tested in 2021, when WFP and partners activated the drought Anticipatory Action Plan (AAP) to protect communities from predicted drought in the Mudzi district.

Scope. The following case study analyses the impact of WFP's capacity-strengthening interventions on Zimbabwe's Disaster-Risk Management (DRM) systems and capacities. It aims to document impact, extract best practices and lessons learnt, and provide practitioners with recommendations on sustainably scaling-up and institutionalising AA in similar contexts.

Methods. This research is based on a monitoring and evaluation (M&E) guide for monitoring the results of AA-specific capacity strengthening programmes. It was jointly developed by WFP and the Red Cross Red Crescent Climate Centre. Capacities for drought AA are measured across four defining areas: policy, finance, science, and implementation (figure 2). Data was collected and analysed as objectively as possible to mitigate bias and interpretation.

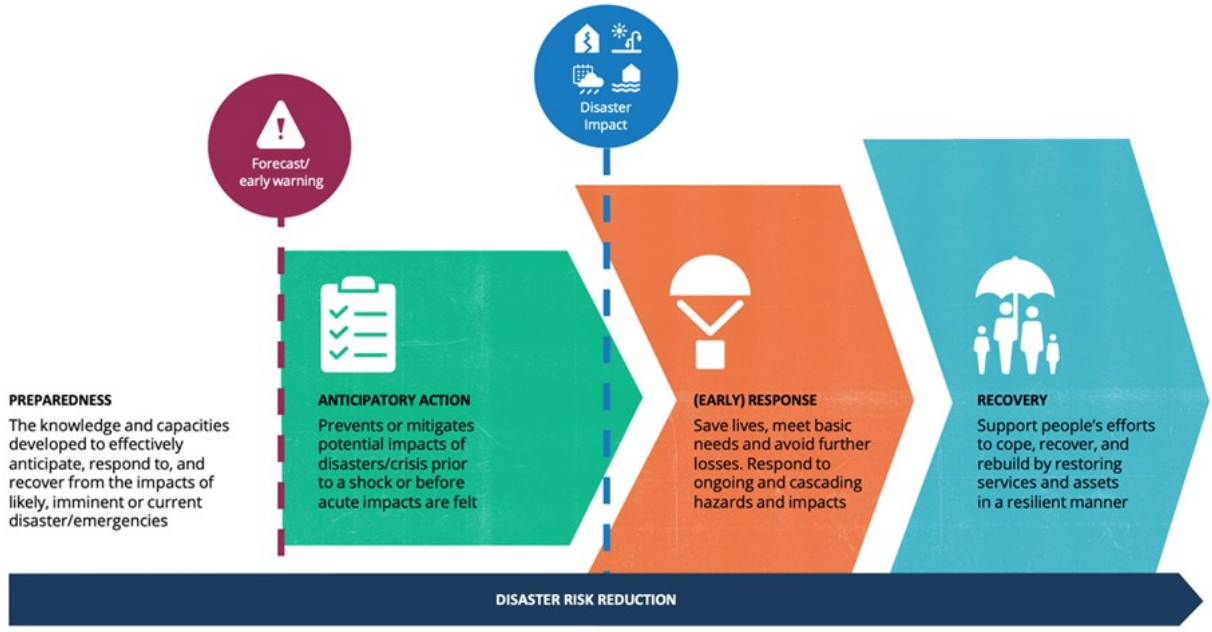

Figure 1: Anticipatory action bridging a gap within the disaster risk management cycle

[1]See WFP, 2023: https://www.wfp.org/publications/2023-building-systems-anticipate-drought-southern-africa

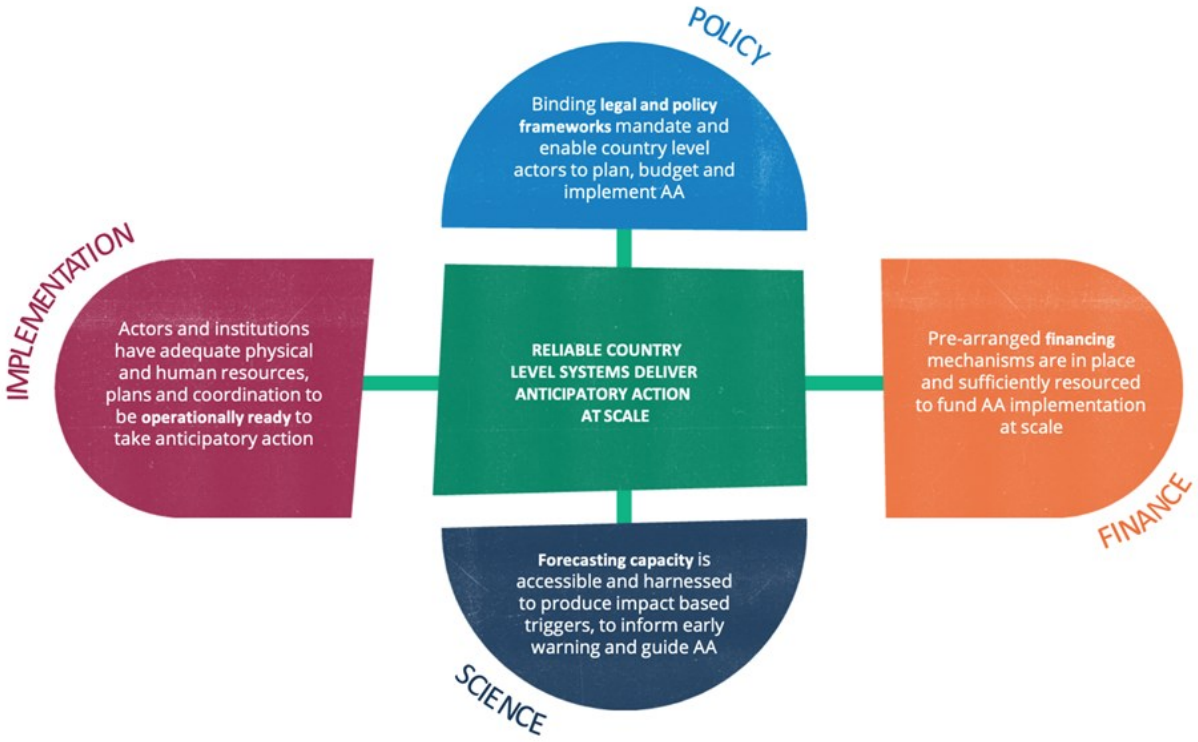

Figure 2: Main capacity outcomes required to achieve successful institutionalization of AA

Data sources. In addition to the existing literature referenced, the findings of this study are based on four primary data sources. An in-country mission helped collect primary data in January 2022:

- An anonymous questionnaire was sent out to government partners, WFP Zimbabwe staff and NGO staff (n=18 for Zimbabwe) and analysed using standard quantitative analysis methods (pie chart and, bar charts) in Microsoft Excel.
- Key informant interviews (n=10) were conducted with staff of government institutions and NGOs, and analysed using the thematic network approach and MaxQDA software (2022).
- Interviews were conducted with WFP staff to establish the baseline capacities of national stakeholders in 2019 and the endline capacities in 2023.
- For more granular data on correlations between WFP interventions and capacity-results, the KII data was analysed through MaxQDA software following the Thematics Networks methodology (Attride-Stirling, 2001).

Terminology. We align with WFP terminology and principally use AA as defined above. In sections of key informant interviews quoted in the text, NGO partners may refer interchangeably to AA as "early action" or "forecast-based-financing".

EXECUTIVE SUMMARY

Context. Zimbabwe is a landlocked, low-income, country with a food deficit in southern Africa. At least 49 percent of its population live in extreme poverty– many impacted by the effects of climate change, protracted economic instability and global stressors (WFP,2023). During the 2022/23 lean season, more than 3.8 million people in rural areas faced food insecurity at peak (25 percent of the total populaton of 15.2 million).

Challenge. Zimbabwe's predominantly semi-arid **climate is extremely variable**, with shifting rainfall patterns, droughts and floods. **Drought** is the most common hazard, affecting the highest number of people and occurring most frequently in southern and western Zimbabwe (Anticipation Hub, 2023). About **70 percent of the population is dependent on rainfed farming**, while most farmers are smallholders with low productivity.

Opportunity. Zimbabwe's administration presents strong decentralized capacities for Disaster-Risk Management (DRM) and, despite gaps in data, had moderate capacities to forecast drought in 2019. In the NGO sector, AA began as soon as 2015, with initial pilots by the United Nations Food and Agricultural Organization (FAO) and WeltHungerHilfe (WHH). This growing interest led to the establishment of a Community of Practice (CoP) for AA in 2018.

Actors. in Zimbabwe, the **Meteorological Service Department (MSD)** is responsible for monitoring climate hazards. The operational actors are the **Department of Civil Protection (DCP),** whose mandate is crisis response and disaster risk reduction, and the **Ministry of Lands, Agriculture, Fisheries, Water, Climate and Rural Development (AGRITEX),** which ensures agricultural and pastoral activities are protected from the impact of climate hazards. Both have decentralized units at district level.

WFP's role. since 2019, WFP has been working with Government stakeholders to deliver AA programmes that **anticipate the arrival of drought and respond ahead of the impact**. To do so, WFP has supported public actors in strengthening their capacities to forecast drought, establish trigger models, and develop and implement operational AAPs with pre-arranged funding . In 2021**, WFP activated the first drought AAP** in the country in the Mudzi district to anticipate a predicted drought[2]. WFP has been implementing AA thanks to funding from NORAD, the GCF, and the German Federal Foreign Office (GFFO).

Results. After 3 years of programme implementation, the **capacities of the MSD to forecast drought,** establish and monitor trigger models have increased. **Data gaps have been filled** thanks to WFP support in rescuing previously unusable archives, establishing a national climate database, and training on blending satellite and weather-station data. **Capacities to implement AAPs have increased,** particularly at sub-central level, with increased confidence of AGRITEX and DCP district and ward officers to consult with communities to design user-centric AA programmes. **The CoP's capacity to coordinate AA** has also increased thanks to WFP participation and proactiveness; a national Technical Working Group (TWG) for AA has been validated by the Government following advocacy efforts from WFP, which will **institutionalise AA within existing DRM structures** and **enhance the Government's leadership and ownership** of AA processes.

[2]See WFP, 2022: https://www.wfp.org/publications/system-anticipate-and-address-impacts-drought-zimbabwe

Key success factors:

- Holistic capacity strengthening of the national meteorological service (MSD), based on existing strengths and gaps, to ensure new capacities to forecast drought are sustainably retained and maintained, even after project closure.
- Strong decentralized administration for DRM, combined with WFP's extensive operational presence, which enabled WFP to strengthen the operational capacities of DCP and AGRITEX units at local level
- Political buy-in and willingness of government partners to invest in AA, and AA advocacy efforts from all members of the CoP

Best practices from WFP Zimbabwe:

- Supporting local authorities to organise community consultations, so drought-affected populations can select the AAs most appropriate to them.
- Researching how to integrate the communities' indigenous knowledge systems for drought into national early warning systems (EWSs).
- Advocating for a government-owned TWG and supporting the Government in establishing a legally-recognized forum for AA within its existing DRM structures.
- Sharing AAPs with the members of the CoP for review and proactively providing feedback on other agencies' AA processes.

Opportunities for Zimbabwe:

- Harmonization of trigger models, capitalizing on current consensus and reducing the risk of government fatigue by aligning methodologies.
- Integration of AA interventions with other drought interventions, clearly delineating them as preparedness, crisis response, and resilience efforts.
- Exploration of synergies between social protection and AA to further institutionalize AA within national social protection safety nets and systems.
- Organization of South-South exchanges to facilitate cross-learning with other countries.
- Packaging and dissemination of available findings from after-action reviews and advocacy for scale-up.

Learn more:

- Building systems to anticipate drought in Southern Africa
- A system to anticipate and address the impacts of drought in Zimbabwe
- Study on the Use of Climate-related Indigenous Knowledge Systems to Support Anticipatory Action in Zimbabwe | World Food Programme (wfp.org)

Capacity levels of national systems to implement anticipatory action for drought in Zimbabwe

	2019	2023
POLICY		
1.1 AA for drought is integrated into disaster risk management (DRM) policies, strategies, and plans at all levels, making AA a requirement when anticipated hazard conditions demand it	1	1
1.2 Mandates, roles and responsibilities for AA for drought are clearly defined and assigned at all levels	1	2
1.3 Accountability and participation mechanisms are established and ensure that at-risk populations are involved in defining and evaluating AA for drought	1	2
AVERAGE FOR THIS OUTCOME AREA (out of 3)	1	1.7
FINANCE		
2.1 Budget planning: A comprehensive budget for AA is developed based on an analysis of – and adequate for – the scale of actions to be taken in relation to the hazard context and at-risk population.	2	2
2.2 Resources are allocated to the AA budget	2	2
2.3 Disbursement mechanisms are established, well defined and ensure a rapid flow of resources to implementers in case of an activation.	2	2
2.4 Continuity: Even in the absence of an activation, consistent availability of operational funding maintains essential ongoing activities, including updating forecasts, trigger models, and AA plans	1	1
2.5 Resource mobilization is diversified and linked with other sovereign climate and disaster risk financing instruments.	1	2
AVERAGE FOR THIS OUTCOME AREA (out of 3)	1.6	1.8
SCIENCE		
3.1 A comprehensive context, hazard and risk analysis informs the design of trigger mechanisms and the prioritization of actions to be taken.	1	2
3.2 Suitable forecasts are available or can be generated and meet requirements regarding timeliness, time scales, forecast skill, and granularity.	2	2
3.3 An impact-based trigger model is developed or co-created with third-party experts, based on reliable, high-quality data.	1	3
3.4 An EWS is in place and links providers of forecast information with implementers of anticipatory action and at-risk communities.	2	2
AVERAGE RATING FOR THIS OUTCOME AREA (out of 3)	1.5	2.25

IMPLEMENTATION & OPERATIONAL READINESS		
3.1 Human resources to deliver AA at scale	1	2
3.2 Logistical capability and physical resources	1	2
3.3 Criteria-based targeting of beneficiaries ensures impact- and needs-based assistance	2	3
3.3 An Anticipatory Action Plan (AAP) is established and validated by all stakeholders, including affected communities	1	3
3.5 Stakeholder engagement, participation and inclusion: All at-risk population groups are included in AA intervention design; formal and transparent mechanisms for civil society and community monitoring and feedback are in place at the local and national levels.	1	3
AVERAGE RATING FOR THIS OUTCOME AREA (out of 3)	1.2	2.6
CROSS-CUTTING		
5.1 Planning is evidence based and risk informed	2	3
5.2 Coordination is institutionalized	1	2
5.3 Risk management is practiced consistently	2	2
5.4 Routine evidence generation and learning built into the programme planning and management cycle; AA implementation is accompanied by rigorous M&E to assess the extent to which actions were effective and what can be improved.	1	2
AVERAGE FOR THIS OUTCOME AREA (out of 3)	1.5	2.25

This table shows the capacity of national DRM systems and its actors to implement anticipatory action programmes that protect households' food security and livelihoods from the impact of drought. Capacity levels for each parameter are measured using a traffic light system (1: red/absent, 2: yellow/partial, 3: green/ fully present)[3]. This gives a birds-eye view of the different components required for a national AA system to work (policy, finance, science, implementation), and the evolution of capacities for each component between 2019 and 2023 .

Measures were attributed based on a desk review and complimented with data from key informant interviews. The data for 2019 and 2023 collected in 2023 (retroactively for 2019). To complement this table, key informant interviews were also analysed to extract more granular information on the evolution of different capacities and contributing factors.

[3]See: *Short Guidance for M&E Practitioners: Planning and Monitoring Capacity Strengthening for Anticipatory Action* (WFP,2022)

1. BACKGROUND

1.1. Existing initiatives for anticipatory action

The first pilots for drought AA were FAO and WHH's initiative, promptly followed by Start Network and the Red Cross. As a result of these pilots, civil society's capacity to operationalise AA increased, thanks to local NGOs collaboration (Anticipation Hub, n.d. 2). However, a Red Cross report of 2019 assessed that a government-led system and programme for AA was not feasible, even if it would provide the most sustainable option.

This is not to say the Government did not have its own drought-response structures in place: according to Oxfam, the **Government of Zimbabwe has many DRM institutions and strong decentralized capacities to mitigate hazards** at provincial, district and ward levels (Oxfam, 2019). The Government's response to Cyclone Idai showed that "Zimbabweans across social, economic and political contexts have shown that they can unite in responding to disasters". However, the response also showed the Government's faced **challenges in obtaining the resources and logistical assets** required for rapid response, and exposed **gaps at preparedness, coordination, and policy levels** (the legislative framework for DRM is currently the Civil Protection Act of 1989: it is mostly reactive and does not integrate risk prevention or mitigation).

To coordinate on AA, in 2018 FAO and WHH formed an initial Technical Working Group (TWG) for drought "Early Action Plans" (EAPs, similar to WFP's AAPs). This would later grow into a "**Community of Practice**" (**CoP**) in 2019 as more AA actors joined, with the MSD as permanent chair and a rotating three-year mandate for an NGO member to co-chair. However, the DCP's presence was lacking, despite it being the main governmental agency for DRM in Zimbabwe.

1.2 WFP's role

WFP's capacity strengthening programme for AA started in 2020, following allocation of funding from the NORAD, the GFFO and the GCF. The main capacity strengthening activities were:

- training of MSD staff in the generation of drought forecasts and on monitoring drought events
- training of DCP staff and CoP members on the design, preparation and implementation of AAPs for national drought
- funding of coordination and CoP events, and technical inputs to the CoP members' AA processes
- Supporting the government to integrate an AA TWG within its existing coordination structures for DRM.

WFP Zimbabwe already had relationships with the DCP and most members of the CoP through its existing activities, such as lean season crisis assistance, climate adaptation activities, and support to smallholder farmers, among others. With three field offices in the country, WFP also benefitted from a **strong operational footprint**.

The main milestone of this programme was **the activation of an AAP in Mudzi district for the 2021/2022 season**. A trigger threshold had been reached for mild to moderate drought for January to February 2022. This was based on Standard Precipitation Indices (SPIs) computed from the European Centre for Medium-Range Weather Forecasts (ECMWF) forecast. After an emergency consultation with the national CoP for AA, WFP, together with district authorities jointly implemented AAs, disbursing US$383,807 of anticipatory finance and reaching over 32,500 people before the peak of the drought was expected to occur. This was the first AA activation in Zimbabwe.

According to the key informant interviews (KII) conducted, five "global themes" or areas of impact can be noted (this case study will focus on the four impacts at systems-level):

- At community level, the AA programme seems to have had a positive effect in reducing households' food insecurity and protecting their livelihoods.

Impacts at systems level:

- Increased capacity of the MSD to monitor and forecast drought.
- Increased capacity to implemement AA programmes at district-level .
- Increased consensus and understanding of AA, with a stronger CoP.
- Increased capacity of the DCP to coordinate and lead AA processes.

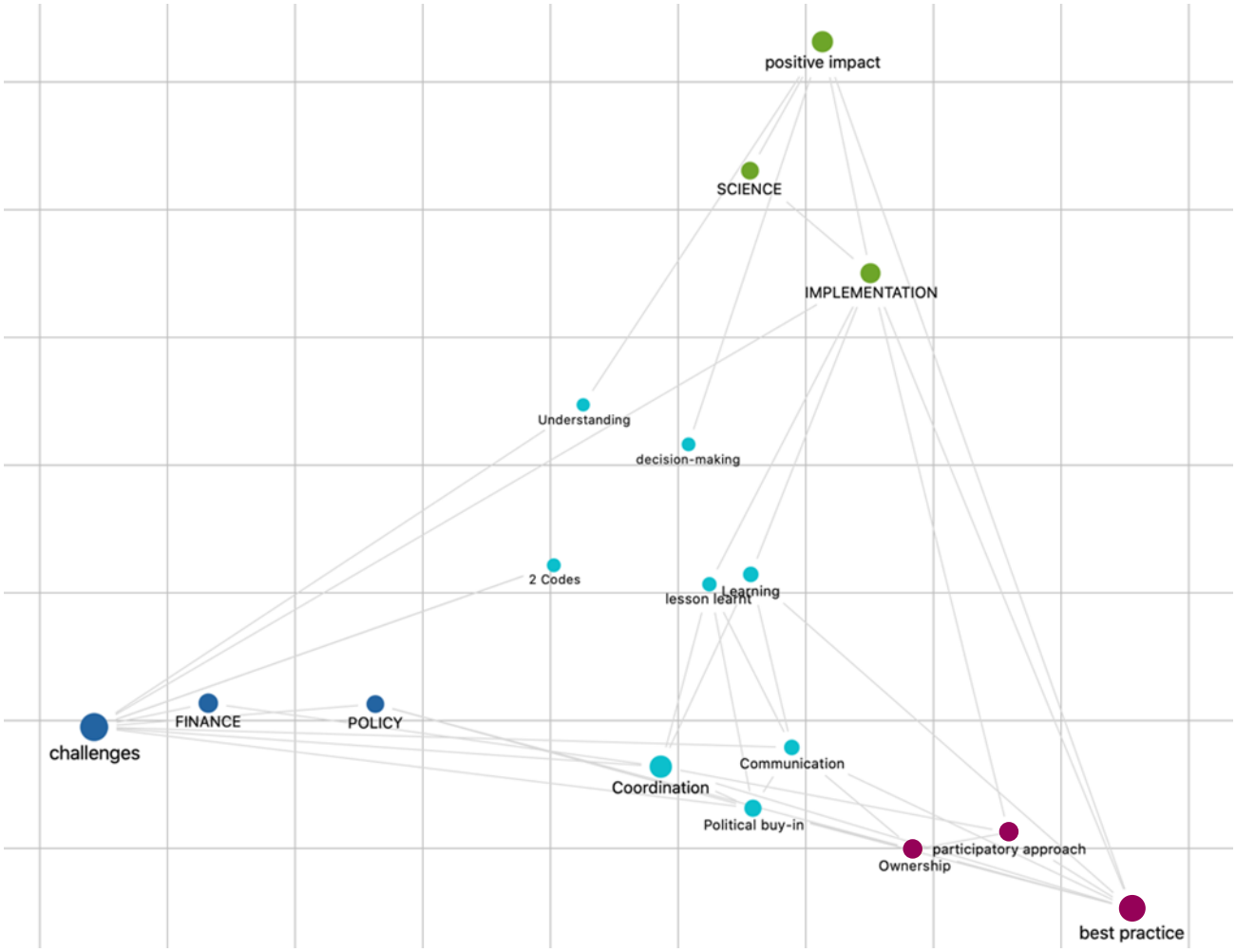

Figure 3: map of most frequent thematic associations in Zimbabwe key informant interviews

Figure 3 is based on key informant interviews with Government stakeholders, NGO, implementing partners, and WFP officers. It maps out the correlation between different themes (segment of texts referring to AA capacity-strengthening were assigned thematic "codes", such as "best practice", "science", "challenges", etc.). We can see that some themes tend to cluster closer to each other, as represented by the different colours : positive impacts (green), best practices (purple), lessons learned (light blue) and challenges (navy blue). Within each cluster, we can see which themes tend to be more closely associated with each other.

If we take the example of the "positive impact" cluster, we can also break it down into further detail with a word-cloud, to understand which words are more frequently associated as "positive impacts" of WFP's AA capacity-strengthening interventions. We can see the impact at community level on the farmers and their crops are the most frequently mentioned impacts; followed by timely and useful drought information and forecasts. The enhanced operational capacities at district level were also highlighted.

Word-cloud: most frequent words used by Zimbabwe informants when talking about the positive impact of WFP capacity strengthening for AA for drought

2. IMPACT OF WFP SYSTEMS—BUILDING

2.1. Impact on forecasting capacities

Anticipatory action for drought hinges on the ability to predict a drought and define trigger thresholds. Climate scientists and implementers must find the right balance between the precision or "skill" of the forecast (when, where, how intense, etc.) and the lead-time required to implement activities before the drought occurs. This requires access to data on past drought trends, current climate conditions, as well as the ability to store, analyse, and process this data in to information products that facilitate decision-making. In Zimbabwe, WFP worked mainly with the MSD to enhance these capacities.

In a feasibility report for AA programmes in Zimbabwe (ZRCS, 2019; United Nations 2021), the Red Cross noted that the MSD were already generating seasonal rainfall forecasts for both the October-November-December (OND) and the January-February-March (JFM) windows of the rainy season. However, these forecasts had **coarse spatial resolution**. All past climate data collected by national weather-stations were kept in **paper records,** making them difficult to access and integrate in analyses. These **gaps in historical data** hindered the MSD's ability to forecast drought, let alone design acceptable triggers for AA.

To address this, WFP mobilised a team of climate and seasonal monitoring experts to support the MSD improving its **access to climate data** and its **provision of climate information services** to AA implementers (*e.g.,* producing / translating information that can easily be understood by communities).

WFP supported the MSD in the **development of downscaled forecasts[4], triggers and thresholds** for drought AA; helping the MSD undertake a **data-rescue exercise** by digitizing and conducting quality-control of meteorological data*; and supporting the adoption of a climatological database management system (ClimSoft), resulting in a **national climate database** with 20 years of historical data on droughts. ClimSoft was developed by the World Meteorological Organization (WMO) with the help of the UK Met Office and the University of Reading. WFP also trained MSD officers in harnessing **remote-sensing technology** and **blended analysis methods** to complement real-time climate data from weather-stations with data from satellites.

> *"Thanks to this capacity building, we can identify several things to set trigger thresholds and produce forecasts in certain areas. This has helped change the way we do our seasonal forecasts: before we forecasted over huge areas, now we are doing forecasts at district level... Now we monitor the rainfall season using both ground data and satellite stations." - MSD*

Outcome area: Science for AA for drought (Zimbabwe)		
Intermediate capacity parameter :	2019	2023
3.1 A comprehensive **context, hazard and risk analysis** informs the design of trigger mechanisms and the prioritization of actions to be taken.	1	2
3.2 Suitable **forecasts** are available or can be generated and meet requirements regarding timeliness, time scales, forecast skill, and granularity.	2	2
3.3 An impact-based **trigger** model is developed or co-created with third-party experts, based on reliable, high-quality data.	1	3
3.4 An **EWS** is in place and links providers of forecast information with implementers of anticipatory action and at-risk communities.	2	2
Average rating for this outcome area:	1.5	2.25

Table 1: mapping of "science" capacities for AA for drought 2019v s 2023

Capacities are measured using a "traffic light" rating system with 1 being absent, 2 being partially present, and 3 being fully present.

**"We eliminated the backlog of 12 years of station data that was sitting on paper. This will eventually bring the recovered data and big archives of station data going back 40 years into analytical work, to blend it with satellite data." - a climate scientist from WFP*

[4]The forecast has a resolution of approximately 30km. Downscaling is obtained using a bilinear interpolation which remaps the forecasting from 100km to 30km. The re-mapped forecast is also bias corrected applying a methodology developed by WFP which uses El Niño/Southern Oscillation (ENSO) process-informed quantile mapping.

The quality and **timeliness of the MSD's forecasts have increased** in the past three years, allowing decision makers at all levels (national, district, and community) to anticipate drought within the lead time allowed by the MSD's forecasts (KII, MSD, CoP members). The MSD is now able to forecast drought conditions and monitor triggers for each district, showing a marked **improvement in spatial resolution.**

WFP's support on data-rescuing was particularly useful, according to MSD informants. Combined with training on harnessing satellite data, this enabled the MSD to fill **gaps in their climate observation network** and **produce higher-quality climate information products** for AA implementers (KII, MSD). For instance, the MSD communicates its climate forecasts to DRM institutions at central and sub-central level, as well as to CoP members, through monthly bulletins. The bulletins now detail when suboptimal rainfall levels are likely to occur within a three-month rainfall season, and whether this translates to a high probability of low, moderate or severe drought in specific districts. They also include detailed analysis of how the rainfall season is evolving and areas of concern. This information was not available in pre- 2019 bulletins.

Two main **challenges** remain for the MSD to fully appropriate AA forecasting capacities: 1) insufficient infrastructure for a **drought EWS** and 2) fragmentation of drought **trigger models** across AA implementers.

Indeed, the national EWS for drought does not yet have the required logistical assets to deliver early warning messages if a drought is to be declared. During the 2021 activation, the MSD's early warning messages were sent not through a public EWS, but through WFP's partner SMS network to ensure timely delivery. That being said, while infrastructure is lacking, Zimbabwe does have excellent decentralised DRM coordination capacities: during the Mudzi activation, the Government's AGRITEX extension officers were key to translate early warning messages into agricultural advice, *i.e* helping famers decide when to weed, apply fertilizers or harvest.

In the absence of a common model, each AA actor in Zimbabwe has developed its own trigger models for drought, using different indicators and thresholds to activate an AAP. There is a lack of consensus on this front as to which model to use. CoP members are aware of this issue and aim to harmonize the different models in 2023 (KII, FAO, WHH).

Overall, it seems WFP's capacity strengthening activities have strongly contributed to MSD's transition from moderately good forecasting capacities for drought, with spatial and chronological inaccuracies, to **generating state-of-the-art accurate rainfall and temperature information** based on blending of station and satellite data. The MSD's work with WFP has laid the groundwork for more accurate impact-based forecasts and a better assessment of the quality of the seasonal forecasts, which are the primary scientific ingredient of AAP implementation. This will also be used to contribute to the refinement of AA triggers. Funds permitting, WFP HQ will support the MSD to produce sub-seasonal forecasts to improve quality and precision.

> *"I haven't seen a meteorological service in the region with this solid level of capacity. They all produce – in some way or other – reporting bulletins with various degree of sophistication, but nothing compares to what the Mozambican and Zimbabwe met services are trying to achieve." - WFP*

TAKE AWAY

When supporting meteorological agencies, WFP adopts a holistic approach that includes enhancing the **real-time data** flow from the institution's observation network while improving **internal station data handling and processing** and supporting national actors to access a variety of **complementary satellite data streams**. WFP designed technical modules "based on the MSD's existing strengths and capacity gaps" (KII, WFP).

As a result, the MSD has stronger forecasting and monitoring capacities for drought (average increase by +0.75 points on a scale of 3.00 since 2019; see table 1). This strengthens the MSD's position as **a key scientific advisor** to DRM actors (DCP, CoP, farmers and community representatives, etc.) that can **facilitate decision-making.**

2.2. Impact on implementation and operational readiness

Implementation capacities relate to the ability to deliver activities that protect populations from the impact of drought. From an operational perspective, this requires logistical assets; coordination; qualified personnel; pre-agreed AAPs, etc.

In 2019, Zimbabwe's civil society showed moderate capacity to operationalise AA thanks to a multiplication of NGO pilots. However this was not the case for the DCP and AGRITEX, according to a 2019 feasibility study by the Red Cross (Anticipation Hub, n.d. 2). This study noted that a government-led system for AA was not yet feasible, even if it would provide the most sustainable option.

That being said, according to Oxfam, the Government of Zimbabwe has many DRM institutions and strong decentralized capacities to mitigate hazards at provincial, district and ward levels (Oxfam, 2019). The Government's response to Cyclone Idai showed that "Zimbabweans across social, economic and political contexts have shown that they can unite in responding to disasters".

However, the response also showed the Government's limited resources and logistical assets required for rapid response, and exposed gaps at preparedness, coordination, and policy levels. Overall, there was no institutional process for AA in 2019 and AA programmes were mainly implemented by NGOs. Hence, as public drought systems were more reactive than preventive (Oxfam, 2019), we can conclude that institutional capacities for anticipating drought were still limited when WFP began its AA programme (1.2 out of 3, *cf* table 2 below).

This is in stark contrast with 2023 levels (2.6/3) : DRM institutions are now able to design AAPs, select anticipatory actions in consultation with the community, and rapidly implement AAP activations with partners if a trigger threshold is reached.

These increases in capacity are particularly strong at district level, thanks to close collaboration between WFP's three field offices and district-level authorities. Indeed, WFP supported DCP officials to develop AAPs for 10 pilot districts. The AAPs included a repository of anticipatory actions for each district. In this process, DCP staff were trained on AA concepts and tools. WFP also supported on various preparedness processes (*eg* setting up contracts with its extensive partner network well ahead of the activation). WFP's operational footprint was often cited as a comparative advantage by key informants*.

Outcome Area: Implementation and operational readiness AA for drought (Zimbabwe)		
Intermediate capacity parameter	2019	2023
3.1 **Human resources** to deliver AA at scale	1	2
3.2 **Logistical** capability and **physical** resources	1	2
3.3 Criteria-based **targeting** of beneficiaries ensures impact- and needs-based assistance	2	3
3.3 An **Anticipatory Action Plan (AAP)** is established and validated by all stakeholders, including affected communities	1	3
3.5 Stakeholder **engagement, participation and inclusion**: All at-risk population groups are included in AA intervention design; formal and transparent mechanisms for civil society and community monitoring and feedback are in place at the local and national levels.	1	3
Average rating for this outcome area:	1.2	2.6

Table 2: mapping of "implementation" capacities for AA for drought 2019 vs 2023

Capacities are measured using a "traffic light" rating system with 1 being absent, 2 being partially present, and 3 being fully present.

**"Compared to other players, WFP has the advantage of presence, its operational footprint in almost every part of country and its in-depth supply chain. It has extensive distribution points dotted around the country." - a representative of a Zimbabwean NGO*

A particularity of the Zimbabwe experience is this "bottom-up" aspect, where district-level actors present stronger operational capacity for AA than at national level. This proved advantageous during the 2021 activation, as district-level actors were already sensitized and ready to implement when the trigger threshold was met. DCP and WFP informants at central level highlighted the operational readiness of local authorities and partners as a key success factor: for example; the boreholes were drilled quickly enough to store water and thus enable household to sustain water access for crops and livestock. Partners also highlighted that they were inspired by WFP's level of preparedness, which enabled them to deliver the AAP in time.

> *"How it was planned, the coordination, the availability of funding and the prepositioning of suppliers and service providers, it was just awesome. WFP chose in advance the cooperating partner for each early action protocol"- AGRITEX Mudwi*

During interviews, informants from local authorities in Mudzi displayed a strong understanding and appreciation of AA, having witnessed the positive impact on households*. This level of understanding can be credited to their participation in – and, in some cases, leadership of – key AA processes, such as the establishment of AAPs and organizing community consultations for the selection and validation of AAs**.

The community consultations are often cited by key informants as the key success factor for the Mudzi activation. With support from WFP, DCP and AGRITEX authorities organized meetings with community leaders and representatives (including women), to explain the aim of the AA programme and consult with them on which actions would better protect their livelihoods ahead of a drought. DCP and AGRITEX officers had a repository of possible AAs prepared, which the community could choose from or suggest new ones. Thus, AAs were selected based on community needs and operational feasibility. These consultations ensured acceptance and increased ownership of AA at all levels.

The consultation minutes were kept as annexes to the larger AAP documents and can be used for reference while revising district AAPs; they are accompanied by useful information for each district, such as population numbers, types of crops, and so on.

WFP Zimbabwe also further localised AA by integrating it into the communities' seasonal livelihood programming*** ,a document that communities revise regularly that spells out the livelihood stocks, needs, challenges faced, and responses planned. Doing so ensures that when a shock – such as a drought – is expected, AA activities complement, rather than duplicate, longer-term disaster risk reduction efforts that happen year round.

> *"Climate information dissemination to farmers is critical so they can choose which crop to plough…The messages were timely: a three-day forecast is very important critical for a farmer. A farmer can plan better with anticipatory action." - Mudzi district official*

TAKE AWAY

In Zimbabwe, WFP leveraged the **existing de-centralized DRM system** to boost local capacities for AA: WFP worked closely with district-level authorities to **establish AAPs in 10 pilot districts**, trained DCP and AGRITEX officials on AA, and supported them in **organizing community consultations** so drought-affected populations were represented in the selection of AAs. As a result, DCP and AGRITEX officers are now able to design and implement people-centered drought AAPs in a timely manner. WFP's **operational footprint** and **preparedness expertise** also contributed to the overall increase in operational capacity for drought AA (+1.4 points on a scale of 3 since 2019, cf table 2).

"To operationalize at district level, we had to involve the provincial office, and take them down to district level… the fact that we were able to get both provincial and district stakeholders to get an understanding of anticipatory action was the biggest milestone in the past three years." WFP

**"The joint monitoring programme always brings in government stakeholders, which we really do appreciate." Mudzi district official.*

***"Our programme is not standalone but is integrated within our initiatives, it feeds into seasonal livelihood programming… whenever we implement AA, we also look at that*

2.3. Cross-cutting impact: coordination, awareness and political buy-in

In 2019, stakeholder understanding of AA was still relatively limited. The CoP with the MSD as co-chair only emerged in 2019 (it was previously a more informal working group). As previously mentioned, pilot programmes were led by NGOs, and while the government facilitated where possible, their appropriation of the concept was limited as they were not the ones leading the process (KII, WHH). As the CoP was initially founded by NGOs, it sits "outside" the national DRM framework. While the MSD is the permanent co-chair, participation of other DRM agencies was limited, further limiting institutionalisation.

The national AA sector has grown in the past four years, and the AA CoP has increased its capacity for coordination, shared understanding, and advocacy of AA. The number of members in the community of practice has grown from 2 to 18. According to one informant: "The fact that we have an increasingly large number of people within the AA space is itself an indication of growing investment in AA" (KII, ex-FAO).

According to KII data, WFP has played a key role in strengthening the CoP since joining in 2021. WFP has been noted for its proactiveness in advancing the AA agenda: WFP funded activities such as workshops to help establish joint AA tools and processes and shared its AAPs with the CoP for peer review. It also peer reviewed the protocols of other agencies for AA, and presented the lessons learned from the Mudzi activation to CoP members. This has helped build consensus around the design of AA programmes, particularly on the importance of including communities in this process.

> *"The first take home from the way WFP did Early Action Plans was involving the affected and vulnerable communities in the identification and development of early actions. We tapped into that, and it worked for us: after our own trigger activation (...) the approach was welcomed by a number of stakeholders."* - WHH

A key factor of change has been WFP's advocacy role for institutionalising the CoP. WFP successfully advocated for the Government to establish a national TWG for AA (the terms of reference, which WFP supported with, were validated by the Government in November 2022). It will be embedded within the existing National Civil Protection Committee as one of its multisectoral sub-groups. This should help ensure ownership by the government of AA discussions and strategic direction, while enabling multisectoral NGO participation.

> *"WFP are playing a significant role in putting the community of practice within DRM structures and in financing some of the activities." - WHH*

TAKE AWAY

In Zimbabwe, WFP leveraged the **existing de-centralized DRM system** to boost local capacities for AA: WFP worked WFP integrated an existing CoP in 2020 established by NGOs and co-chaired by the MSD. In the past four years, the CoP has grown in members and the quality of its outputs has increased; WFP **contributed by sharing its own AA processes,** tools, and findings with the CoP, as well as leading technical trainings on AA. A key evolution has been the **institutionalising** of the CoP: WFP successfully advocated for the CoP to be embedded within the National Civil Protection Unit, which legally enshrines the Government's role as the leader and coordinator of AA processes in the country.

3. REMAINING CHALLENGES FOR AA

Funding and financing mechanisms is one of the biggest challenges to the institutionalization of AA worldwide (REAP, 2022), and Zimbabwe is no exception*. As AA is a relatively new concept, funding has been limited so far compared to other DRM responses, and the small-scale of pilots limits the sustainability of AA (REAP, 2022).

Furthermore, pilot programme funds are transferred exclusively through United Nations/NGO budgets: there are no sovereign contingency funds that cover anticipatory action plans, nor is AA included in national financial strategies for DRM. Even if funding is sourced externally, revising sovereign instruments to enhance their shock-responsiveness could also have positive implications for other emergency responses beyond AA, such as social protection.

Aside from funding, the fragmentation of drought trigger models is the next operational challenge. The lack of consensus on this front runs the risk of losing momentum in engagement with government, particularly the MSD**.

> *"For AA to work, we need to have access to flexible funding: it is available, but I do not believe it is adequate. As long as we're targeting these small numbers, we don't generate enough evidence."* - FAO

Furthermore, sub-seasonal forecasting, allowing implementers to predict in which month a drought will happen within a three-month window, is currently lacking.

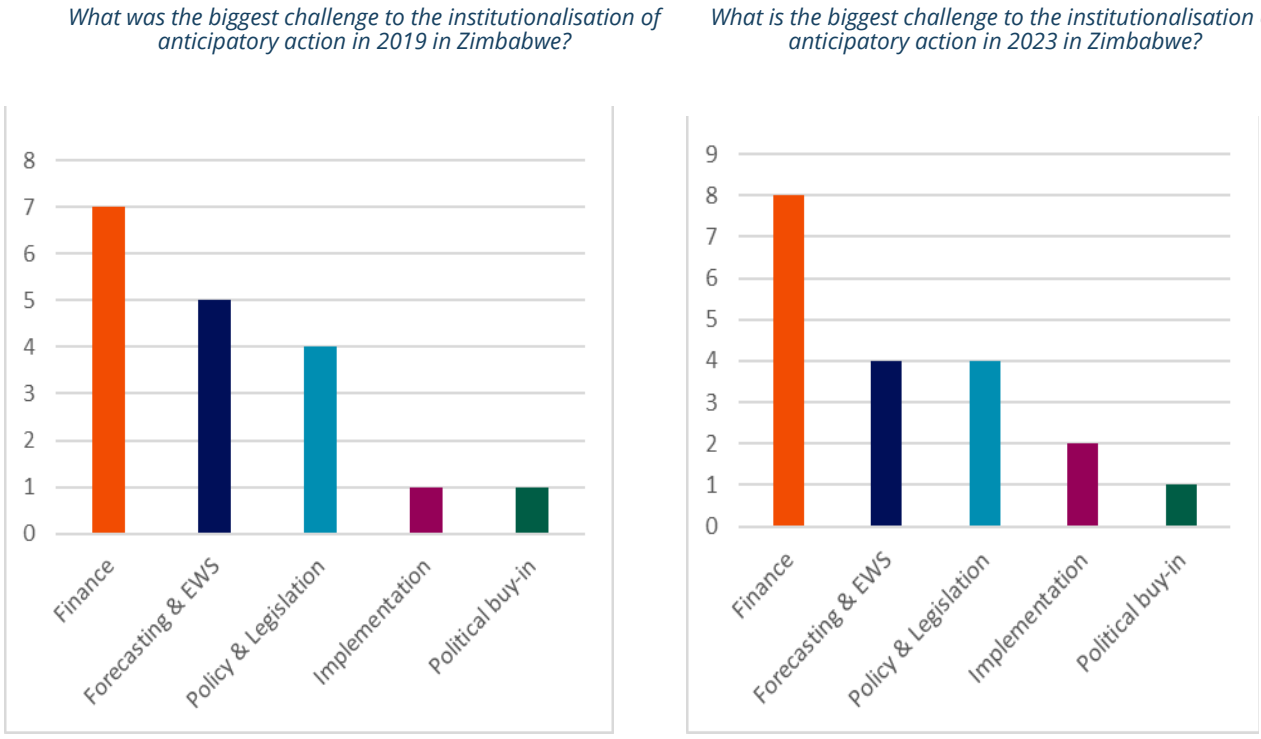

Figure 4: challenges to the institutionalisation of anticipatory action in Zimbabwe, 2019 and 2023 (survey, n=18)

**More was done on the SOPs… Partners and agencies did make their presentations on the different models for triggers, but little was done in terms of giving input as a Community of Practice, this may be because of the technicality of these systems." - WHH*

***"The 18 agencies [of the Community of Practice] are knocking on the MSD's door to get information that could easily be brought in the common space and easily extracted. This puts a strain on government departments and is leading to apathy … We needed to address this quickly." - FAO*

This is not surprising, as WFP has only been supporting the MSD for a year. Forecasting skill should improve within a year or two if funding is sufficient to continue technical capacity strengthening. (Sub-seasonal forecasting is generally mentioned as a challenge by technical MSD informants, whereas implementers refer more to triggers, funding, coordination, and policy.)

There is a discrepancy between central DRM capacities and district-level capacities for operational readiness: district-level authorities tend to have a greater understanding of AA than their national counterparts. In contrast, central-level authorities do not benefit from clear DRM mandates*. Indeed, policy is another challenge to AA.

While it has not entirely blocked implementers from scaling up AA in the country, the lack of enabling policy reflects the relatively lower understanding and operational capacities for AA of national-level actors (currently, the main DRM policy is the Civil Protection Act of 1989, which makes no mention of preventive measures).

Finally, human resources are also a limiting factor: while technical capacities are increasing within the MSD thanks to WFP's input, a few informants have also pointed out the lack of technical people in other institutions, as well as the challenge of "brain-drain", under which highly specialized technicians find more competitive positions, typically in international NGOs.

Word–cloud: most frequently used words by key informants when speaking of challenges to institutionalising or scaling up AA

**"Various departments are at various levels of understanding and implementation of AA … In some instances, policy makers don't understand the importance of the forecast issued and how it can be used."* MSD employee.

Anticipation is not in the policy space. There are no clear mandates. It's not happening outside NGO programmes, so it cannot be independent of financial or programmatic support (…) Disaster risk management, from our legal perspective, starts only when there is a hazard. There is silence on the pre-hazard phase, not even preparedness. This law provides the legal basis for any officer to say "my work starts here"" United Nations agency employee

4. CONCLUSION

4.1. Best practices

Since 2015, the Government of Zimbabwe has made significant progress in transitioning from a reactive to a preventive approach to disaster-risk reduction and management with support from its partners. Several lessons learnt from WFP's experience in supporting national capacities and systems for AA can be extracted for other implementers:

Supporting the government to consult drought-affected populations

> *"My best tip for AA implementers is to put the vulnerable or affected communities at the core of developing feasible anticipatory actions. It instils stewardship or ownership of the product, and there are greater chances of sustaining the AAs if the community has been at the forefront of designing them" - World Vision Zimbabwe*

In Zimbabwe, AGRITEX ward officers were able to facilitate conversations with communities and understand their needs and preferences, which can be shared with relevant multi-sectoral actors. Supporting local authorities to set up these consultations with community leaders and ensuring representation of all drought-affected groups (occupation, also gender, age and ethnic groups) will bolster localization and acceptance of AA.

Integrating indigenous knowledge systems into the early warning system

For generations, communities have gathered knowledge and implemented adaptive actions to predict and anticipate drought. WFP Zimbabwe conducted a study which highlighted options for integrating indigenous knowledge within national EWS as a way to triangulate scientific forecasting data and boost community acceptance of early warning messages (WFP, November 2022a).

Being client-focused and avoid parallel systems where possible

While holistic assistance is necessary to ensure AA systems are sustainable, it can be challenging to address everything related to AA at once: the forecasting, the trigger thresholds, the AAP, the policy, and so on. Therefore, it can be useful to map out AA capacities ahead of time to identify gaps in the AA system, and align with national stakeholders on priorities for capacity-strengthening.

Identify an institutional "champion" to be AA's voice from the inside

> *"We ensure that MSD was on board first. Because the government trust one of their own. So when it comes from MSD, stakeholders know it's in their interest to listen to what MSD is saying." - WFP Zimbabwe*

Once the gaps are clarified, AA actors should strive to put the **national actors in the driving seat** of AA processes whenever possible. This might entail finding one or two "champions" within the DRM infrastructure (in Zimbabwe's case, the MSD) and supporting them in "rallying" the other government actors, or supporting the government in taking the lead on coordination, programme design or implementation processes.

Base your support on credible science

> *"The idea of having trigger thresholds and monitoring done from the government side, at the end of the day, it makes it easier and easily acceptable by decision makers. If it is mentioned by a government institution, there is a level of trust, that it's not taken out of context." - MSD*

This is particularly true for slow-onset hazards such as drought, as by nature they are less "evident" than slow-onset ones. Declaring a drought can be a highly political process; it's important to bring clear data to the table to justify why funding should be allocated to drought AA measures and at which thresholds. In Zimbabwe, WFP staff made sure to align their language about drought with that of their government counterparts*.

"In Zimbabwe, normally the president declares a drought. So, you don't just start off by saying we're anticipating a drought. You say, "our rains are lower than expected and we want to curb the effects of that". All of us in the room will probably have the same understanding, but it's important to use the right words at the right time." WFP Zimbabwe employee

4.2. Lessons learnt and opportunities

Data-based evidence

According to key informants, more could be done to package the existing data. Actors should capitalize on data generated by their AAP activations to generate robust cost-benefit and return-on-investment analyses[4]. This is crucial considering Zimbabwe's increasing funding gap[5], and WFP is well placed to channel this advocacy to its extensive range of partners, including the Secretariat of the Southern African Development Community (SADC) or the Anticipation Hub.

Connect the MSD to other hydro-meteorological services for "South-South" learning

When asked what could have been done differently, MSD officials requested to learn from other national hydro-met services (MSD KII). Research shows that learning in groups of similar profiles gives better outcomes than learning alone (Bond, Charles F.; Titus, Linda J. (1983). Through the SADC, for instance, WFP's Regional Bureau could facilitate South-South cooperation activities such as: research partnerships, study tours and peer learning events between different hydro-met services or DRM institutions (comparing approaches and sharing learnings around trigger thresholds, AAPs, community participation and so on), and support for coordinating regional advocacy for preventive DRM.

The establishment of a national TWG within the National Civil Protection Committee opens multiple areas of opportunity for WFP and partners to support the institutionalisation of AA:

Revision of the DRM policy framework

WFP and CoP members can advocate for the inclusion of preventive DRM measures such as AA for multiple hazards as the Governmet revises the Civil protection Act.

Aligning on trigger models

To avoid fragmentation, AA actors could consider the possibility of a unified trigger model that feeds into the national EWS. This will require strong leadership and coordination from the Government, which the new TWG should provide, as well as technical assistance to help the Government decide which elemens of the different triger models are best suited to Zimbabawe's context and needs.

Scaling up AA to multiple hazards

Widening the breadth of AA programes to include other hazards such as floods or cyclones would cater more holistically to the needs of vulnerable populations in Zimbabwe. Stakeholders can capitalize on the gains acquired by national actors on AA or drought; many of which are transferrable to other types of hazards; as well as WFP's experience in setting up AA for fast-onset hazards.

Integrating of AA in national social protection systems

When AA is layered with social protection, it can help address the climate risks affecting the most vulnerable populations in a timely, sustainable, and cost-effective manner (WFP, 2022). Ways of possible integration include expanding social protection programmes by adding an anticipatory as well as a climate vulnerability one, vertical expansion, piggybacking on existing registries or payment delivery systems.

Engaging with multi-sectoral actors

This includes institutions for social protection but also water, hygiene, shelter and displacements, protection, etc. These stakeholders could explore the synergies between their different activities, as integration would strengthen disaster-risk management across the spectrum and better address the variety of needs[6] faced by drought-affected populations (Wilkinson et al 2020, Tschakert et al 2010).

Acronyms

AA	Anticipatory Action
AAP	Anticipatory Action Plan
AGRITEX	(Zimbabwe) Ministry of Agriculture
CoP	Community Of Practice
DCP	(Zimbabwe) Department of Civil Protection
DDC	District Development Coordinator
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECHO	European Civil Protection and Humanitarian Aid Operations
EU	European Union
EWS	Early warning system
FAO	(United Nations) Food and Agriculture Organization
FCDO	(United Kingdom) Foreign, Commonwealth and Development Office
GCF	Green Climate Fund
GFFO	German Federal Foreign Office
GIZ	(German) Gesellschaft für Internationale Zusammenarbeit
HQ	Headquarters
IFRC	International Federation of Red Cross and Red Crescent Societies
INGO	International Non-Governmental Organization
KII	Key Informant Interview
MSD	(Zimbabwe) Meteorological Service Department
NGO	Non-Governmental Organization
NHMS	National Hydro-Meteorological Service
NORAD	Norwegian Agency for Development Cooperation
OCHA	(United Nations) Office for Humanitarian Affairs
RAM	Research, Analysis and Monitoring
REAP	Risk-informed Early Action Partnership
SADC	Southern African Development Community
TWG	Technical Working Group
USD	United States Dollar
WFP	World Food Programme
WHH	WeltHungerHilfe
ZRCS	Zimbabwe Red Cross Society

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