2. *Decision Tree*- Questions and Pathways to FbA for Drought[1]

The goal of this exercise is to guide thoughts on the development of FbA for drought, highlighting the different issues that could arise and the questions we could ask, and proposing different decisions that could be made depending on the context-specific answers to these questions. It should be used in conjunction with the research presented in the Guidance Notes report and its accompanying documents, as well as the FbF Manual. **This diagram is meant to be a living document that can be adapted to contexts and altered over time, as experience and ideas on FbA for drought are developed.**

A. Context

First, it is important to note here the strong context-specificity of these questions. The causes of droughts are many-fold and complex, dependent on hydro-meteorological variability and cycles, regional geography, past events, existing hydrological resources, among many other elements. The tools at our disposal to accurately forecast and monitor the phenomena also differ widely between regions as a function of predictability and existing capacity. The impacts of droughts are also bound to local realities, highly determined by the type of drought that is of concern and the intensity, duration, magnitude, and frequency of the event, as well as a wide range of socio-economic conditions such as the livelihood profiles of the region and the capacity of systems to respond to shocks. Additionally, any new work on FbA for drought must include a comprehensive knowledge of local stakeholders and existing work on the topic of drought preparedness and response in the region of interest; this landscape may look quite different between regions, countries, or even at sub-national levels. As such, close attention must be taken to understand the contextual nature of the phenomenon, in all its facets, with the knowledge that, the answers to all these questions and the solutions we find to these problems may be vastly different and complementary.

[1] *A special thank you to Erin Coughlan de Perez and Catalina Jaime for shaping this piece, and to Maurine Ambani, Irene Amuron, Stephen McDowell, Madhab Uprety, and the rest of the RCCC science team for their invaluable comments and ideas.*

Context

What humanitarian impacts are we concerned about?

1

Humanitarian Impacts

Early Actions

2

Theories of Change

Stakeholdler mapping

Can we take meaningful early action to prepare for these impacts? (e.g. develop a menu of actions)

What is our expertise, and value added as the Red Cross Red Crescent?

No

For the time being, we can do something different to reduce the impacts we are concerned about.

E.g.

Dry Season Interventions

Livelihood programs

Yes

How often do these impacts occur?

The impacts are chronic

3

The impacts are unusual

What is the relationship between impacts and historical hydrometerological "drought" events?

4

There is no clear relationship between impacts and hydrometeorological "drought" events

Hydrometeorological "drought" events are among many contributing factors to these impacts.

Hydrometeorological "drought" events seem to be the main drivers of these impacts

Hazard Analysis

Are there other hydro-meteorological conditions that are generally not defined as "drought" that may be driving these impacts? (eg. late rainy season onset, dry spells)

What drivers of vulnerability that, in combination, with the hydro-met phenomenon produce those humanitarian impacts?

No

Yes

FbA using a socio-economic trigger (e.g. Niger)

Thresholds and Triggers

For the time being, we can do something different to reduce the impacts we are concerned about.

5

Drought response (e.g. food and water distribution, health service deployment etc.)

E.g.

Government advocacy on the concept of trigger-based early action

There is low hydro-met predictability and insufficient impact data.

No

Are there sufficient usable hydro-met observations and/or forecast skill to predict drought events and understand their impacts?

What meaningful early actions (and combinations thereof) can we take, matched to the type of information and lead-time we have?

Yes

Yes

There is enough accuracy and data to build a robust trigger.

There already exists a tool with enough skill to be used as a trigger.

We can begin to prepare the development of an EAP for drought using the procedures detailed in the FbF manual and EAP criteria

B. Steps

Following the diagram, the following steps have been developed as a non-exhaustive exercise to discuss the different pathways that could develop through thinking about FbA for drought.

1

What humanitarian impacts are we concerned about?

First, we should begin by identifying the humanitarian impacts (risks) that we associate with drought and that we want to prevent, mitigate and/or to prepare through early action. This can involve a historical analysis of previous droughts or dryness in the context of interest, and therefore requires sufficient historical disaster impact data as well as exposure and vulnerability characteristics taken from those past extreme events. In general, the main primary and secondary impacts that we associate with drought are related to food insecurity (e.g. pasture and crop yields), water supply, health and sanitation (e.g. water-borne illnesses and epidemics), and socio-economic indicators (e.g. decline in basic income, elevated food prices, livestock death). Minimizing these impacts (risks) through anticipation and preparedness is the fundamental goal of any FbA program.

Additional key questions for reflection:

i. What humanitarian impacts are we looking to prevent and/or mitigate through early action? (i.e. what has happened in the past that we want to reduce in the future? What recorded impact data do we have at the local and national scales?)

ii. What other drivers produce these impacts in our region? How will we distinguish between the different drivers of these impacts?

iii. What are the socio-economic characteristics of our population and their livelihoods? What do the livelihood calendars look like? What are the livelihood options and coping strategies of communities in relation to drought impacts?

2

Can we take meaningful early action to prevent/mitigate and/or prepare for these impacts?

We can then begin to populate a menu of possible early actions which could be used to lessen these impacts. The selection of actions is a highly iterative process; early actions must be based on robust theories of change which explicitly outline our desired outcome, the logic of our choice of early action, and the assumptions we are making, with the goal to minimise the risk and magnitude of impact in the advent of a shock (FbF Manual Guide #3 on early action). Designing early actions must be done with a clear understanding of the impact, its cause and consequences, and the capacity of the actors involved (FbF ToC). Research has shown that early actions for drought could occur in sectors beyond disaster management. We can think of categorising actions by food security, health, economic, and social, depending on the impacts that are of greatest concern in the context.

While developing these, it is important to discuss our role as the Red Cross Red Crescent, what expertise and value-added we bring to the situation. Indeed, the stakeholder-landscape of work on drought is particularly varied, bridging the humanitarian, development, and government worlds, and ensuring we play in concordance and to our strengths, can greatly influence the effectiveness and appropriateness of our programs. Stakeholder mapping exercises can be useful tools to this end (FbF Manual, Guide #3,11). Additionally, it is important to understand whether we have the capacity to implement such early actions and prepare EAPs that fit the other criteria found in the FbF manual.

Additional key questions for reflection:

i What early actions will be most effective? Are they realistic based on my NS capacity, social acceptability, time of implementation etc.?

ii. What work is already being done in this space? What is our "niche" as a Red Cross Red Crescent national society? What previous experience does the national society have in drought response/mitigation and what lessons were learned/capacities built?

iii. What would the success of our FbA program look like? How will we track, monitor, and evaluate progress, achievements, failures?

iv. How will we fund our early actions? Along with the DREF, what other mechanisms of funding are available (e.g. crisis modifiers by ECHO, national budgets, contingency funds etc.)

3

How often do these impacts occur?

Next, we must ask ourselves whether the impacts we have identified are chronic, stemming from long-standing and/or systemic vulnerabilities, or whether we are discussing unusual impacts (i.e. deviations from the normal situations). This step is central because the type of hazards targeted by

the RCRC FbA mechanism at the moment are focused on " extreme hydro-meteorological events", for specific actions implemented in the window between a trigger and a shock. Structural vulnerability drivers cannot be addressed by FbA; however, FbA for drought could complement greatly existing long term DRR/CCA strategies. To manage situations of chronic drought, there exist better tools than forecast-based action to increase resilience and coping capacity. Notably, resources could be used for dry season interventions to build household resilience to failed rains, or for different livelihood programs in coordination with governments and development agencies.

Additional key questions for reflection:

i. What is the severity, magnitude, duration, and frequency of these events?
ii. At what spatial scale are these impacts felt?

4

What is the relationship between hydro-meteorological drought events and humanitarian impacts?

Then, we want to understand the relationship between these humanitarian impacts and hydro-meteorological trends commonly identified as "drought", such as below average rainfall in the rainy season. This step will involve combining the record of impacts identified above with historical hydro-meteorological observations, in order to see whether there is correlation in the data between the impacts and the drought periods. Then we would analyse the strength and direction of the correlation between measures of impact and hydro-meteorological variables (e.g. acute food insecurity with lower than average rainfall/season). The goal here is two-fold: first, to understand if the "humanitarian impacts" that we want to address are associated with hydro-meteorological factors or not. If analysis shows that the humanitarian impacts to be addressed do not have any relation to a hydro-meteorological drought event, perhaps we could envision another type of FbA, with a socio-economic trigger. This idea builds off lessons learned from the FbA project in Niger and would address a negative impact experienced by a population that has many stressors. In reflection of this, the program would not aim to anticipate the impacts associated with only one of those drivers (in this case, seasonal rainfall deficits). Rather it would monitor a wider set of stressors (weather-related and socio-economic etc.) that contribute to the impact and weigh them according to their importance historically (if known) to contributing to the impact the program is trying to avoid. In the Niger case, the system aims to anticipate food insecurity that is largely produced by a set of rainfall anomalies, but it is also driven by insecurity, displacement, the weather in other places, to name only a few. These additional stressors are monitored via proxy indicators such as market prices.

On the other hand, if the humanitarian impacts *are* associated with hydro-meteorological conditions, either with a "drought event" or with a range of factors, then we can proceed to identify the drivers of vulnerability that, in combination, with the hydro-met phenomenon produce those humanitarian impacts. It is important to note that the same humanitarian impacts can be associated with a different type of hydro-meteorological event (or a combination) that may not be defined as drought - for instance, the late onset of rainy seasons, flash droughts, or rainfall anomalies at key moments in the agricultural calendar can have similar impacts as below-average seasonal rainfall

Additional key questions for reflection:

i. How is drought defined? What components are we examining?

ii. What drivers of vulnerability that, in combination, with the hydro-met phenomenon produce those humanitarian impacts?

iii. Are there other hydro-meteorological conditions that are generally not defined as "drought" that may be driving these impacts?

5

a) Is there sufficient usable hydro-meteorological information and/or forecast skill to predict droughts, and understand their impacts?

To build an FbA trigger, we must determine on what basis (i.e. threshold) and at when (i.e. lead time) the actions will be taken - for this, we must assess whether (and how) it is possible to predict the occurrence of the phenomena identified previously. Creating a trigger requires sufficient data and observations in order to predict the conditions which lead to the impacts about which we are concerned. The skill of seasonal weather forecasts varies widely depending on the context and global forces and observational data can in some places be sparse. Assessing the skill and usability of the information we hold can be complex but in essence, the methods used to build a robust trigger model can take stock from the FbF Manual's Guide to Trigger Methodology which provides hazard neutral guidance although shaped by most of the RCRC's experience with fast-onset hazards such as floods and cyclones. For drought, the sources of data may be different from the experience with FbA for fast-onset hazards - for instance, unconventional triggers to address drought-caused food insecurity could include food security early warning systems, monitoring elements such as increases in staple food prices.

If we cannot (as yet) predict the drivers of these humanitarian impacts, we could envision using our resources to respond to the impacts, an intervention for which the RCRC has long-lasting experience.

Additional key questions for reflection:

i. What are the main drivers of dryness and rainfall variability in our region? (e.g ENSO, West African monsoon)

ii. What seasonal/sub-seasonal forecasts, observations, early warning systems unconventional tools are available at an acceptable skill for our region to anticipate and monitor droughts and their impact)?

b) What meaningful early actions *can* we take, given the availability of this information and the capacity of our organisations?

At this time, an iterative process between trigger development and early action choice is recommended - in order to be feasible and effective, the early actions that are chosen must match with the available information that constitutes the FbA trigger. The process of analysing the risk and possible options to predict it will also provide more information about the situation that we are concerned about.

Centrally, FbA for slow-onset hazards like drought provide the potential to create staggered triggers and early actions: different early actions that would be taken at different lead times. For example, we can use seasonal forecasts to provide an indication of trends in rainy season onset. We could then envision the monitoring of meteorological observations of a failed rainy season to trigger other sets of actions.

<u>Additional key questions for reflection:</u>

i. Are these tools and information sufficient to set thresholds and take early action?

ii. What combination of early actions would be possible and the most effective to lessen these impacts? How will we use these?

C. Conclusions

Different answers to these questions can bring you to different conclusions.

You could conclude that it is possible to create a functional RCRC FbA trigger for drought in your context. In this case, you could follow the steps for EAP development as determined by the FbF Manual and following the EAP criteria and template, adapted for your context.

However, at different points in the flow chart, certain answers lead you off the path of FbA for drought. This does not mean the situation does not warrant attention, only that we might not

have enough information (yet) to use the FbA system the way it is structured within the RCRC, and that it may therefore not be the most effective or appropriate mechanism to address concerns. In these cases, other humanitarian tools can better mitigate the situation for the time being. It is important to note that none of these suggestions are mutually exclusive.