# SHOCK RESPONSIVE SOCIAL PROTECTION
# Disaster Risk Finance

## SESSION 2: DATA AND INTRODUCTION TO TRIGGERS FOR SCALE UP
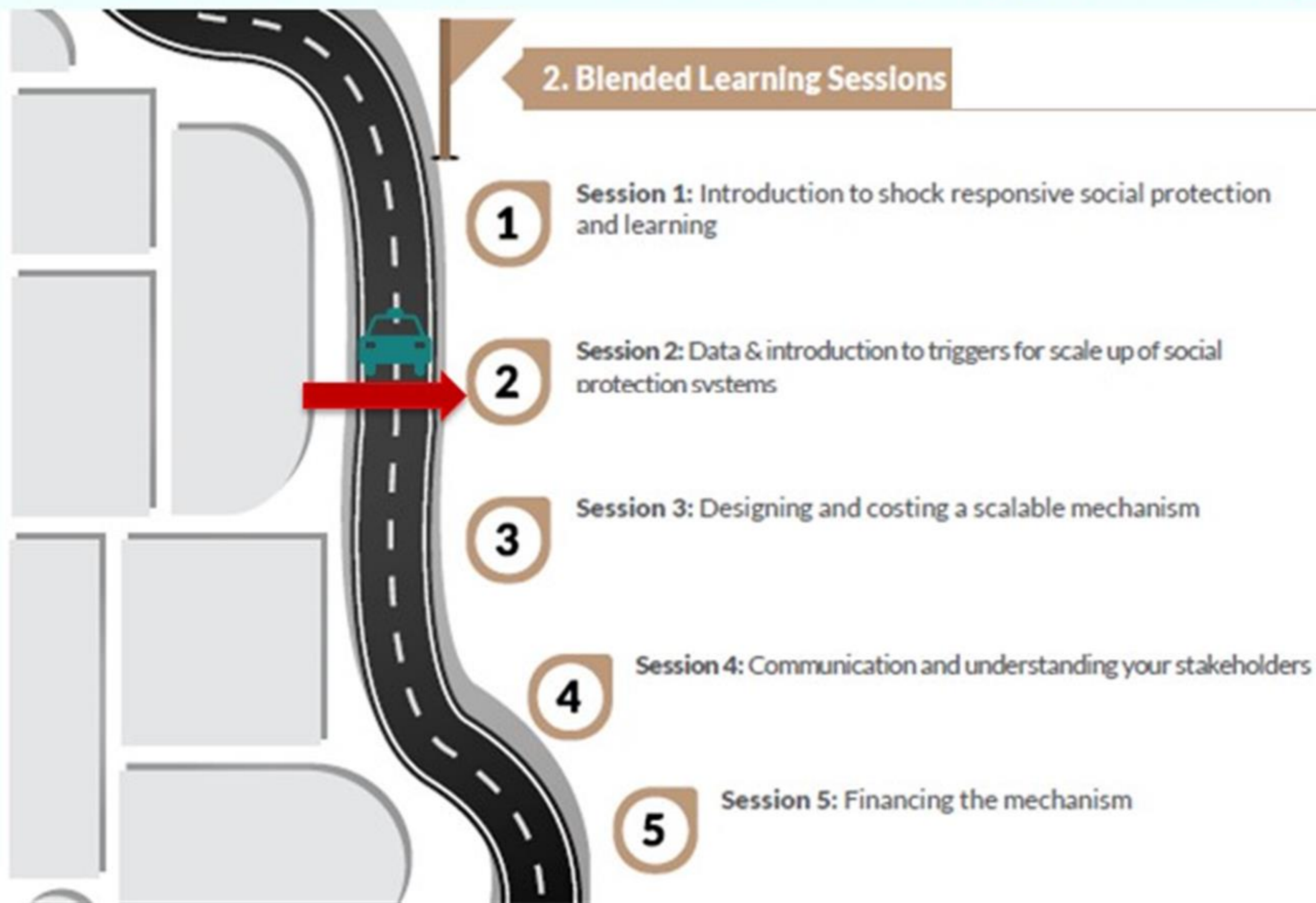
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Disaster Risk Financing
& Insurance Program

SUPPORTED BY
WORLD BANK GROUP

Global Risk
Financing Facility
Supporting Early Action to Climate Shocks, Disasters, and Crises

UKaid
from the British people

# Chapter/Session 2 of the Learning RoadMap



**2. Blended Learning Sessions**

**1** Session 1: Introduction to shock responsive social protection and learning

**2** Session 2: Data & introduction to triggers for scale up of social protection systems

**3** Session 3: Designing and costing a scalable mechanism

**4** Session 4: Communication and understanding your stakeholders

**5** Session 5: Financing the mechanism

# Objective and Structure of webinars

## INTENDED OUTCOME:

Government officials to develop strong understanding of the steps required to **design, develop and deliver** a mechanism to scale up the Social Cash Transfers Program (SCTP) in response to weather-related shocks, (initially drought)

90-120 minute webinar for each chapter in the workbook

Different guest speakers

Live polls: Please participate

Please share questions via Q&A function

# What you will need for this session

- ❑ Go to **www.menti.com** (or prepare the QR scanner on your phone)
- ❑ Paper and pen for some exercises
- ❑ Be Ready to participate and have fun!

# Workbook: Disaster Risk Finance for Social Protection in Malawi



**Disaster Risk Finance for Social Protection in Malawi**

SCALING UP THE SOCIAL CASH TRANSFER PROGRAM
A WORKBOOK



CASE STUDY: NIGER

The main cash transfer program in Niger provides a monthly transfer of CFAF15,000 (~US$27) to around 50,000 households. Through the World Bank–supported Adaptive Safety Net Project 2, additional financing was made available to the government of Niger to finance a pilot for scaling up this cash transfer program to provide additional assistance in response to droughts.

The government faced challenges in designing this pilot due to the difficulty in accessing early warning data on climate shocks. Most of the early warning systems in the country tracked indicators describing the impact of drought (e.g., food security, agricultural production) rather than the climatic event itself. Given this limitation, the government decided to use a satellite-based trigger to scale up the cash transfer program to additional beneficiary households in selected communes.

In order to select the data to be used as the basis for the cash transfer program scale-up trigger, the government established two criteria: (a) data should be easily accessible; and (b) data should be available by the end of the rainy season at the latest. Data was then collected from different sources to conduct statistical analysis (see table 1).

CHAPTER 2:
EXERCISE: MALAWI IN FOCUS

1. In order to determine policy priorities, how might you identify the historical years in which districts experienced really bad droughts?

2. What other drought response or related initiatives are currently in place? Please consider initiatives both by government and partners.

3. Can you give an example of a primary or secondary trigger that some of these initiatives currently use to inform disaster response?

4. In the table below are some potential data sources to use for a triggering mechanism. What advantages and disadvantages do you think each of these sources might have?

| Sources | Advantages | Disadvantages |
|---|---|---|
| Household survey data from public sources | | |
| Remote-sensing data on weather or ground conditions | | |
| Data on disaster losses from governments, partners, or private sector | | |
| Data on historical disaster response from governments or partners (and use of safety nets) | | |
| Information on other existing safety nets from governments and partners | | |
| Reports by NGOs and humanitarian organizations | | |

# Multiple Benefits of Responding Early to Shocks

### Direct Welfare Benefits

Late response can lead to decreased child nutrition and reduction in income per capita (GDP). Studies showed that the later the response, the more costly the impact for households.

### Pre-empts negative coping strategies

Households tend to cope with disasters by selling livestock and productive assets and reducing food consumption. These responses often have long-term effects.

### Reduces the cost of response

According to recent studies, a late humanitarian response costs approximately 7 times that of an early response, and donors could save up to 30% on humanitarian aid spending if investment was provided earlier.

### Macro-economic impact

Financing disaster responses means governments must divert scarce resources away from basic public services undermining national development. The extra costs associated with late response exacerbates this.

# Multiple Benefits of DRF approach

## Reactive

**Without DRF approach**

1. Decisions to trigger a response often happens only after the crisis has hit

2. PDNAs or local vulnerability assessments might need to be undertaken to quantify impact

3. Funding appeals need to be made for the resources to respond

4. Decision to scale-up assistance is often made too late

## Proactive

**With DRF approach**

1. Decision to trigger a response happens as soon as possible following a shock / before communities are severely affected by its negative impacts

2. Actors more inclined to act early as benefit of early action are acknowledge by all

3. Assistance to affected communities provided on-time

# What are the Four Core Principles of Disaster Risk Finance ?

① 1    ② 2    ③ 3    ④ 4

?    ?    ?    ?

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# The Four Core Principles of Disaster Risk Finance

**1** Timeliness of funding: speed matters but not all resources are needed at once.

**2** No single financial instrument can address all risks.

**3** How money reaches beneficiaries is as important as where it comes from.

**4** To make sound financial decisions you need to have the right information.

# Six steps towards strengthening financial resilience

Develop a risk profile

Design the Scalability Mechanism

Finalize the mechanism rules and devise a DRF strategy to support costs

**1**

**2**

**3**

**4**

**5**

**6**

Decide on policy priorities

Estimate the cost of Scalability Mechanism

Monitoring and Evaluation

## Session # 2

This session will help the government in setting objective rules to determine when social safety nets should scale up using different data sources.

**This session will include inputs from the specialized firm hired to conduct technical review of potential triggers for Social Cash Transfer Program (SCTP) scale up in Malawi.**

- Data availability
- Options for potential primary and secondary triggers
- Triggers validation: How do triggers reflect the vulnerability of households to drought
- Outline differences and complementariness between primary and secondary triggers

Please review Chapter 2 ( page 35 onwards) in the attached workbook ahead of the training session

| Time: | Agenda: |
|---|---|
| 02:00 – 02:20 | Welcome and recap from Session 1 (Introduction to SRSP) |
| 02:20 – 02:40 | Presentation on data analysis to understand risk and inform policy decisions (WorldBank) |
| 02:40 – 03:30 | Presentation and discussion on data availability and options for triggers in Malawi (Tetra Tech) |
| 03:30 – 03:50 | Update and discussion on SCTP systems readiness (Government of Malawi) |
| 03:50 – 04:00 | Wrap up |

**What do you hope to learn today on data and triggers to scale up the Social Cash Transfer Program?**

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# DATA ANALYSIS TO UNDERSTAND RISK AND INFORM DECISION MAKING

# Data Collection & Data Analysis are key for robust DRF Schemes

## A. Data Collection

**Where** can relevant data be found and what are the **preconditions** to apply it for a robust analysis?

## B. Data Analysis

**How** can the collected data be analyzed according to relevant **policy and operational considerations**?

## Policy Implications

**How do** data analytics outcomes feed into the operational **design and procedures** of scale up schemes?

# A. DATA COLLECTION

A. Data Collection

## 3 Key Questions on Data Collection

**(1)** **What** type of data do you need?

**(2)** **Where** can you find the data?

**(3)** Is the data **fit** for purpose?

**THE VALUE OF ANALYTICS IS ONLY AS GOOD AS THE DATA THAT FEEDS INTO IT**

*A. Data Collection*

I. **What** Type of Data Do You Need?

Past disasters data

Vulnerability of population data

Financial data

**BIG DATA SETS DO NOT ALWAYS EQUATE TO USABLE INFORMATION**

*A. Data Collection*

Government Agencies

Risk Model Firms

Public Sources

Insurance Companies

## II. **Where** Can You Find the Data?

Humanitarian Organizations

**SOME DATA SOURCES ARE EASIER TO ACCESS THAN OTHERS**

*A. Data Collection*

**III. Is the Data Fit for Purpose?**

Adjustments to combine data from multiple sources

Time period covered (the longer the better)

Check quality and missing data points

Removal of unreliable data points

**LIMITATIONS TO ANALYSIS CONCLUSIONS GIVEN DATA FITNESS AND APPROPRIATENESS**

*A. Data Collection*

# How might the **type** / **source** determine use for scale-up

## DATA SOURCES

### Hard Data
Information from objective sources and methodologies that can be measured, traced, and validated without individual input

### Soft Data
Observations like opinions and surveys that bring together lots of views and provide more subjective data that can be better specified and contextualized

## TRIGGER FUNCTION

### Primary Trigger
Triggers a payout if a pre-agreed threshold of a hard data indictor is breached

### Secondary Trigger
Ensures flexibility to respond when conditions on the ground require it, even if the primary trigger is not met

## SCTP DUAL TRIGGER

### Primary 'hard' trigger
- Remote sensing data to capture the impact of drought
- Modellable (to use risk transfer product as a financial instrument)

### Secondary 'softer' trigger
- Remote sensing, food insecurity and/or agricultural data
- 'Fail-safe' to capture impacts missed by the primary trigger

B. Data Analysis

## Poll – Types of data

What are they key characteristics of hard data?

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# B. DATA ANALYSIS

B. Data Analysis

## Data Analysis

**Geographical** analysis

**Risk** assessments

**Econometric** analysis

DATA ANALYSIS CAN PROVIDE OBJECTIVE INFORMATION REGARDING A COUNTRY'S RISK PROFILE

# Data Analysis to Understand Risk

**Combines disaster risk information** with **financial methodologies** and assumptions to support informed decision making

Standardized approach of proven **statistical and economic methodologies** to conduct financial analyses to support governments in fiscal decisions related to disaster risk

Bridges the gap between disaster risk data and **risk-informed decision making**

*B. Data Analysis*

# Data Analysis to Inform SRSP Policy Decisions

Policy decisions need to be based on objective data if they are to be transparent and robust.

**SRSP policy decisions needed to answer the questions**

**What?**

**When?**

**Where?**

**Who?**

**How long?**

**Types &Sources**

**Triggers**

**Data Analysis**

**Scale Up & Design**

*B. Data Analysis*

**Where?**

## RISK & VULNERABILITY

Analyze shock conditions over time to determine which areas are most vulnerable and would benefit the most

## SYSTEMS READINESS

Consider areas where systems could reach beneficiaries within the given timeframe when scale ups trigger

**?** **IN MALAWI, WHAT DATA SOURCES MIGHT TO HELP UNDERSTAND DROUGHT RISK?**

*B. Data Analysis*

## Poll - Pros and cons of data sources

What are the top 3 data sources you would use in Malawi to understand the drought risks faced by the population?

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*B. Data Analysis*

## When?

**Define a disaster with data**

**Meteorological indicators** such as satellite generated remote sensing data to track climatic variables

**Vulnerability indicators** such as poverty, prices, livelihood patterns, infrastructure and timing

**Select a disaster type (frequency and severity)**

Triggering **too early** or too often will increase costs but triggering **too late** may undermine many of the benefits of an early response

B. Data Analysis

**When?**

① **Choosing an indicator**

- Simple
- Objective
- Accurate
- Timely
- Modellable

② **Ensuring a robust triggering mechanism**

Combining different data sources and indicators – primary & secondary triggers

③ **Validating triggers**

Checking consistency with other data sources & correlation with conditions on the ground

**?** POLICY MAKERS SHOULD CONSIDER COMPLEMENTARITY OF THE MECHANISM WITH OTHER INITIATIVES

IN MALAWI, WHAT RELATED INITIATIVES ARE CURRENTLY IN PLACE? WHAT TRIGGERS DO THEY USE?

*B. Data Analysis*

## Poll – Which districts are most prone to drought?

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# SESSION 2 WRAP-UP

# Case Study: Niger

## Choosing an indicator

a) Data should be easily accessible
b) Data should be available at the latest at the end of the rainy season

- Rainfall
- NDVI
- Temperature
- WRSI
- Prices
- Production

## Validating triggers

Rainfall, NDVI, WRSI were all positively and significantly correlated with millet production.

WRSI was found to be its best predictor.

Millet production shocks
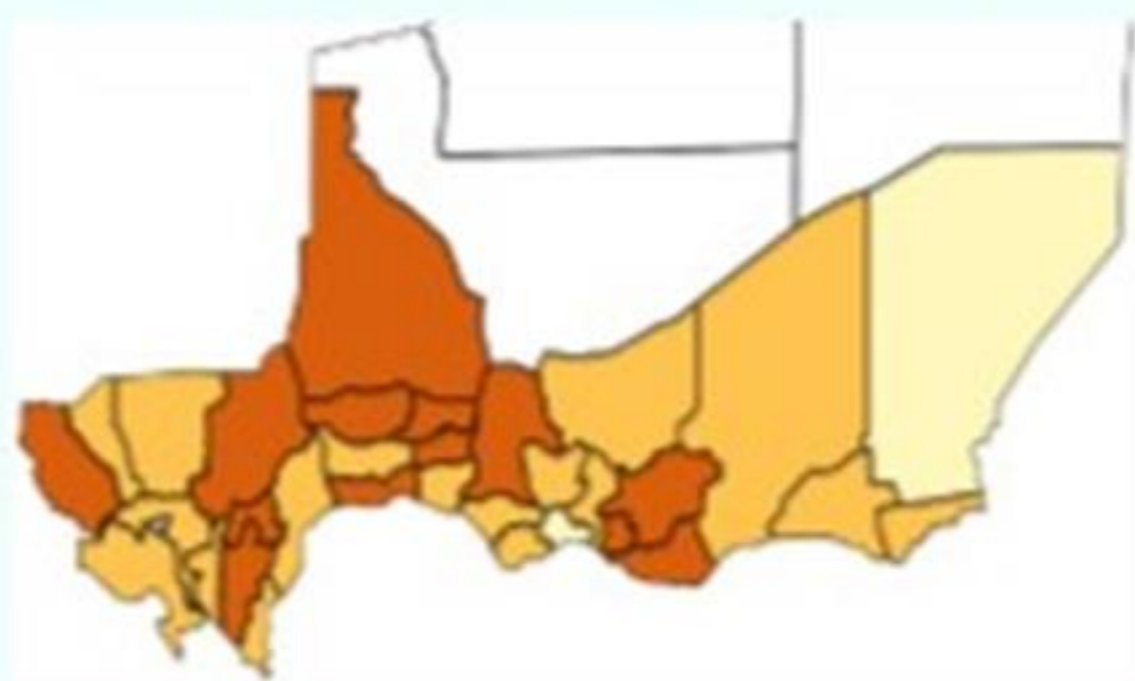


## Ensuring a robust triggering mechanism

Not all shocks are captured by WRSI.

The government aimed for a "no regrets" approach and adopted a secondary trigger based on IPC, which is used only after the review of a Steering Committee

## Discussion Questions :

**Where?**

**What districts** do you think the SCTP scalability mechanism should focus on as a priority? Please list your top three districts and explain why you would choose them?

**What?**

**What drought indicator and other data sources would you select as the primary and secondary triggers** for the SCTP scalability mechanism? Please explain how your choices relate to the criteria for trigger data selection (simple, objective, accurate, and timely)

**How?**

Once the mechanism is in place, **how would you propose validating** the triggering mechanism?