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Resilience in the Sahel-Enhanced (RISE) Program Impact Evaluation

Key Findings from Recurrent Monitoring Survey 2018-19

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RISE program

Activity areas

- Improved technologies and management practices
 - Agricultural production
 - Animal rearing
- Access to markets and business development
- Access to financial resources
- Disaster Risk Reduction (DRR)
- Conflict mitigation
- Health and nutrition

➔ Strengthen households' resilience capacities

Purpose of Recurrent Monitoring Surveys

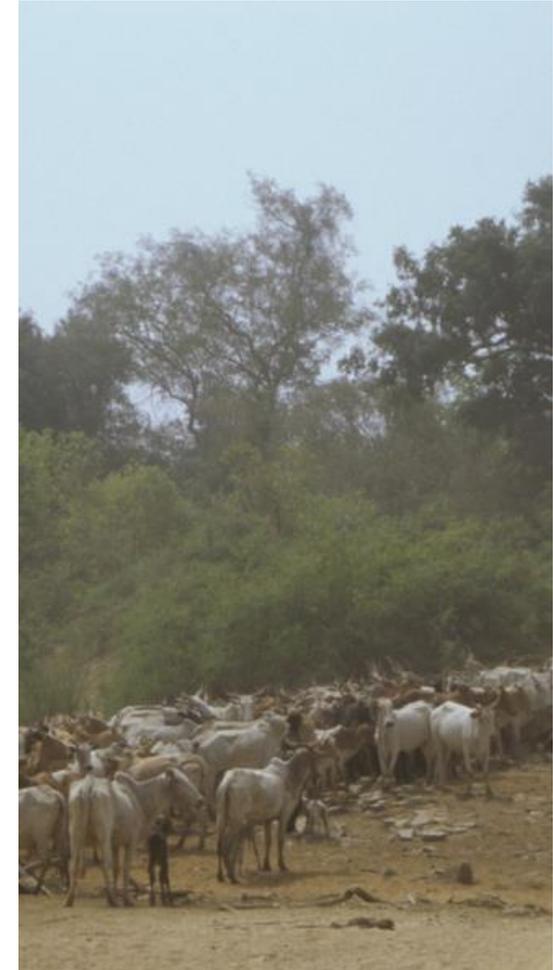
- RMS's collect real-time data, during the course of an actual shock, on the nature of the shock, how households are coping with it, and their resilience.
- Opportunity to gain greater understanding of the underlying determinants of their resilience (their “resilience capacities”) and whether and how a program is making a difference.
- Information helps to inform programming for the rest of the project and future projects



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Main takeaways of RMS 2018-19 analysis

- High, increasing shock exposure during RISE
- Four main shocks in RMS period itself: Climate events (drought, flooding), army worms, violent extremism, food price increases
- 55-60% of households were resilient
- What helped them recover?
 - Their own resilience capacities:
Social capital, assets, savings, informal safety nets, human capital, exposure to information, access to financial resources, markets, services and infrastructure.
 - RISE interventions (suggestive evidence)



Outline

- Background on RMS 2018-19
- Definitions and measurement framework
- Shocks and coping strategies
- Food security and resilience
- What helped households recover?
 - Resilience capacities
 - RISE interventions
- Implications for programming



Background on RMS 2018-19



Objectives of the RMS 2018-19 analysis

- (1) Understand the severity and evolution of the shocks households faced over the RMS period
- (2) Document the coping strategies they used to deal with them
- (3) Assess how resilient they were to the shocks
- (4) Explore how households' resilience capacities and the RISE program affected their resilience

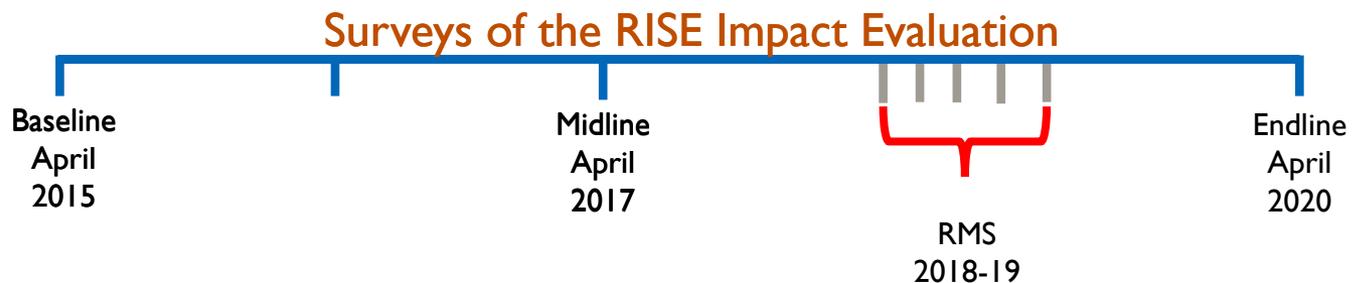
RMS 2018-19 data collection

Quantitative data

- Collected August 2018 – April 2019 (9 months)
- Representative, panel sample
- 828 households
- 5 rounds 2 months apart

Qualitative data

- FGDs, KIIs
- Concurrently collected in each round



Definitions and measurement framework



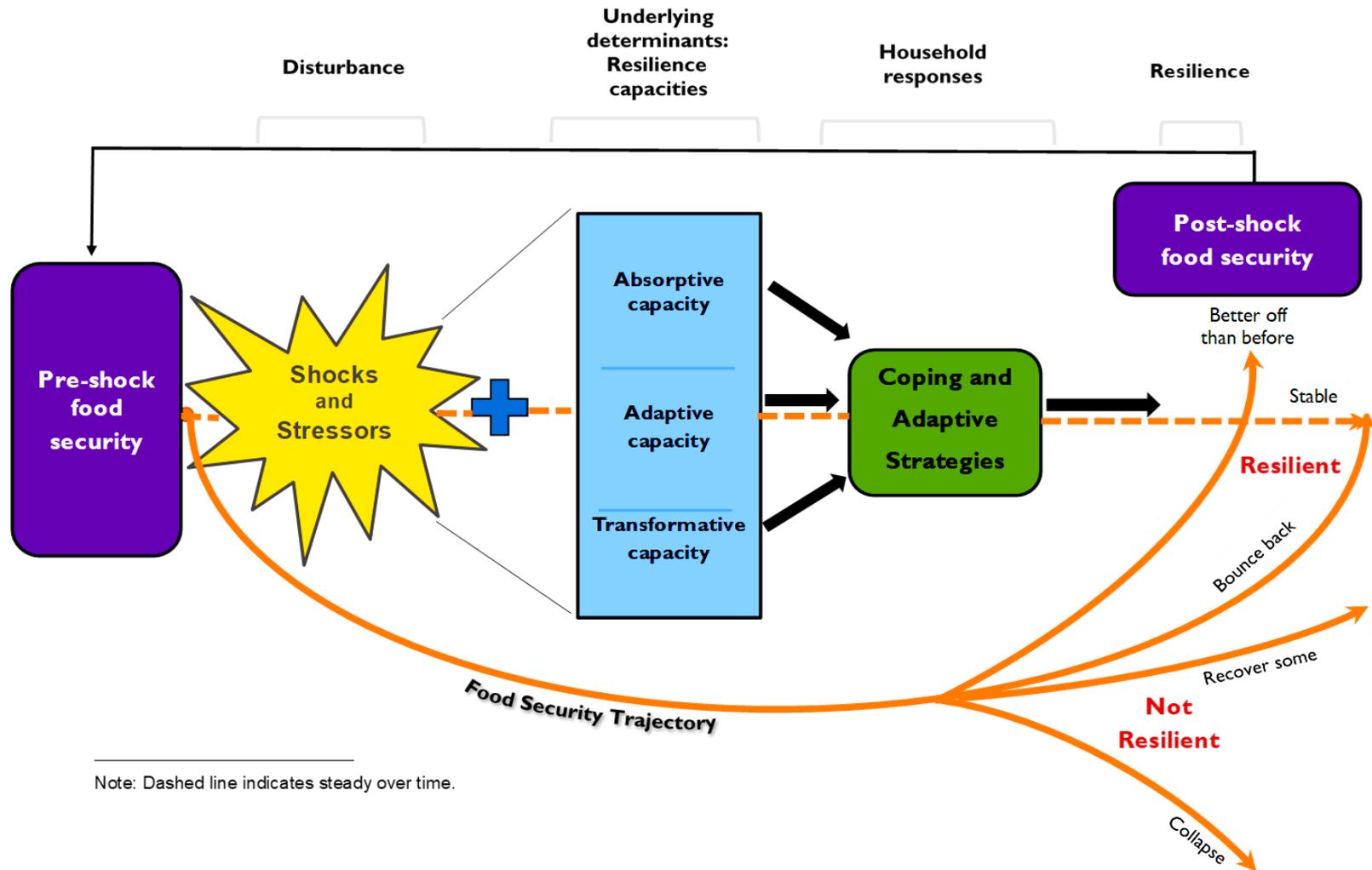
Resilience and resilience capacity

Resilience: The ability to “... recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth” (USAID)

Resilience capacities: Enabling conditions for achieving resilience
3 dimensions:

- **Absorptive capacity**
 - The ability to minimize exposure to shocks and recover quickly if exposed
- **Adaptive capacity**
 - The ability to make proactive and informed choices about alternative livelihood strategies based on changing conditions
- **Transformative capacity**
 - State of the wider system in which households are embedded:
 - Governance mechanisms, policies/regulations, markets, infrastructure, formal safety nets

TANGO Conceptual Framework for Resilience Measurement and Analysis

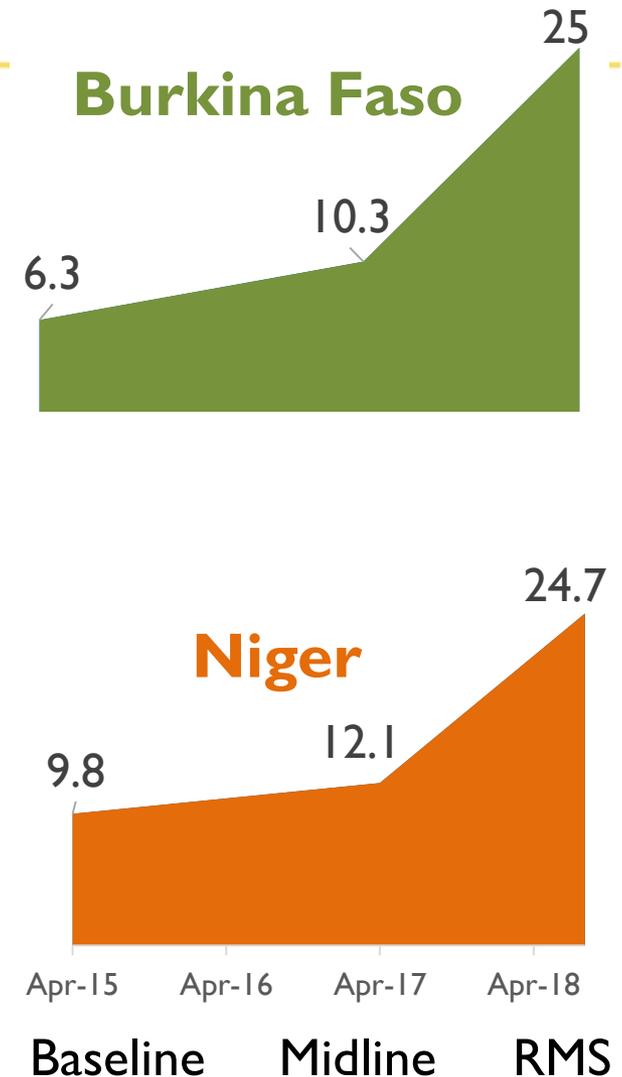


Shock exposure and coping strategies



Shock exposure

- Measured shock exposure with index taking into account household reports of the incidence and severity of 26 shocks, including:
 - Environmental
 - Economic
 - Conflict shocks
- Shock exposure progressively increased over the course of the RISE program's implementation in both program areas



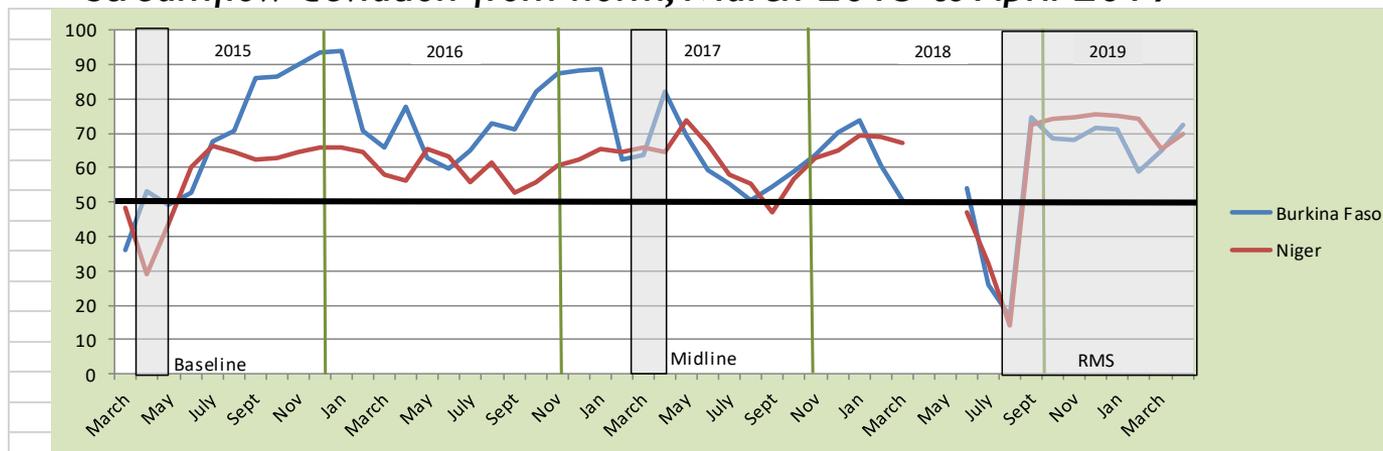
Shock exposure during the RMS period

Four major “exogenous” shocks:

- Multiple climate shocks
- Army worm infestations
- Influx of violent extremism
- Food price increases

Drought
Excessive rains, flooding
Lack of rain at critical times
High winds leading to crop lodging

Streamflow deviation from norm, March 2015 to April 2019



Shock exposure during the RMS period: violent extremism

“People were becoming more desperate and living in constant fear of being attacked”.

- Conflict shock rose during the RMS period: escalating violent extremism (Burkina Faso and Tillabery in Niger)
- Starting in RMS Round 3, militant groups attacked villages leading to large-scale displacement
- Downstream impacts:
 - Market disruptions, school closures
 - Disruption of livelihoods: agriculture and livestock rearing, gold panning, petty trade
 - Hampered ability to receive humanitarian assistance

“Everyone had become careful where they go and who they associate with. They felt they had lost their peace.”

“They could no longer go about their daily business without being scared.”

Coping strategies

Quantitative data:

Most common

- Selling livestock (but drought → poor terms of trade)
- Drawing down on savings
- Reducing number of meals in a day
- Limiting portion sizes at mealtimes
- Reducing regular household expenses

Also widespread

- Sending livestock in search of pasture and water
- Migration of some family members
- Relying on friends/relatives
- Hunting, foraging, fish, termite mounds
- Selling productive assets
- Consuming seed stock

“This year the price of animals has been so low that even the money from selling 3 goats can’t buy a bag of corn” (Kii Maradi).

“The poorest families collected waste flour from the mills. (FGD, Centre-Nord)

Additional from Qualitative data

- Sale of wood and straw, wild foods
- Casual labor in others’ fields
- Mortgaging land, going into debt to merchants

Coping strategies

“To cope with the animal diseases, many farmers tried to sell the animals before they died” (FGBD Maradi)

Negative coping strategies

- Selling productive assets
- Consuming seed stock
- Sending children to work for money
- Borrowing money from money lenders
- Taking children out of school

==> Undermine future ability to recover

“People also coped by reducing from three meals a day to two. People were consuming more wild leaves.. People were also consuming their seed stock” (FGD Centre-Nord)

Food security and resilience



Trends in food security

- Resilience measured using changes over time in food security
- Food security measured using the inverse of the Household Food Insecurity Access Scale (HFIAS).
- Index constructed from responses to nine questions regarding people's experiences of food insecurity
- Inverse taken so we have a measure that increases with increases food security.

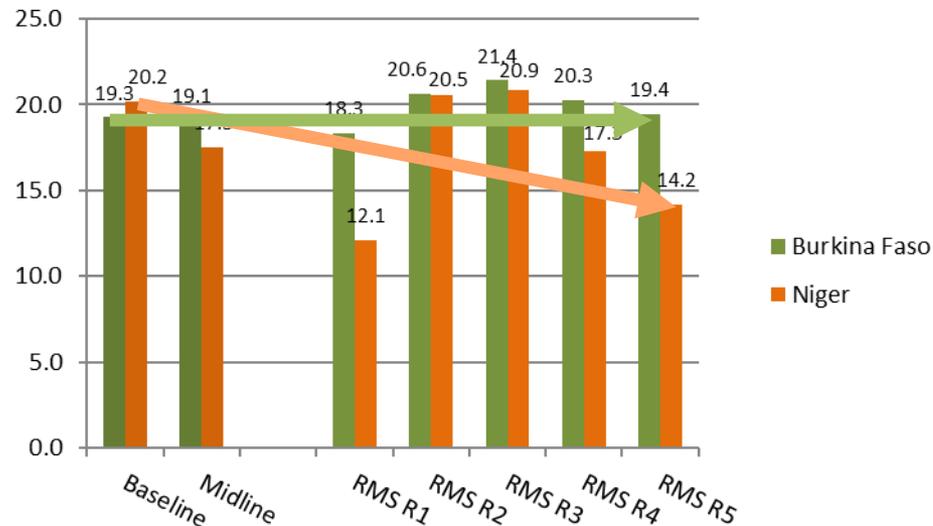
Trends in food security

Burkina Faso: Food security stable since the baseline.

Niger: Highly fluctuating pattern

Fell by 30% between baseline and RMS R5

Food security index at baseline, midline and RMS rounds 1-5



Effect of shocks on food security

- Resilience: maintaining well-being (e.g. food security) **in face of shocks**
- But do shocks have a negative impact? Which ones?
- Regression analysis confirms strong negative impact

Shocks with negative impact on food security:

- Drought ✓
- Poor rainfall timing ✓
- Flooding ✓
- Insect invasions ✓
- Conflict shock ✓
- Food price increases ✓
- [Animal disease outbreaks ✗]

Resilience: Four measures

- (1) **“Long-term” realized resilience:** The total change in food security over the RMS period
- (2) **“Short-term” realized resilience:** The change in food security between RMS rounds (2-month periods)
- (3) **Food security stability:** Whether a household was able to maintain or increase its food security between RMS rounds
- (4) **Perceived ability to recover:** An experiential indicator based on households’ own reports of their ability to recover from the shocks they experienced.



How resilient were households?

Realized resilience: recovery

- 60% of households recovered their food security over the RMS period → 40% did not
- Greater percentage of Burkina Faso households recovered (66% versus 56%)

Stability

- 55% food security stability → 45% did not
- Burkina Faso and Niger households fared roughly the same



Has resilience increased since the beginning of RISE?

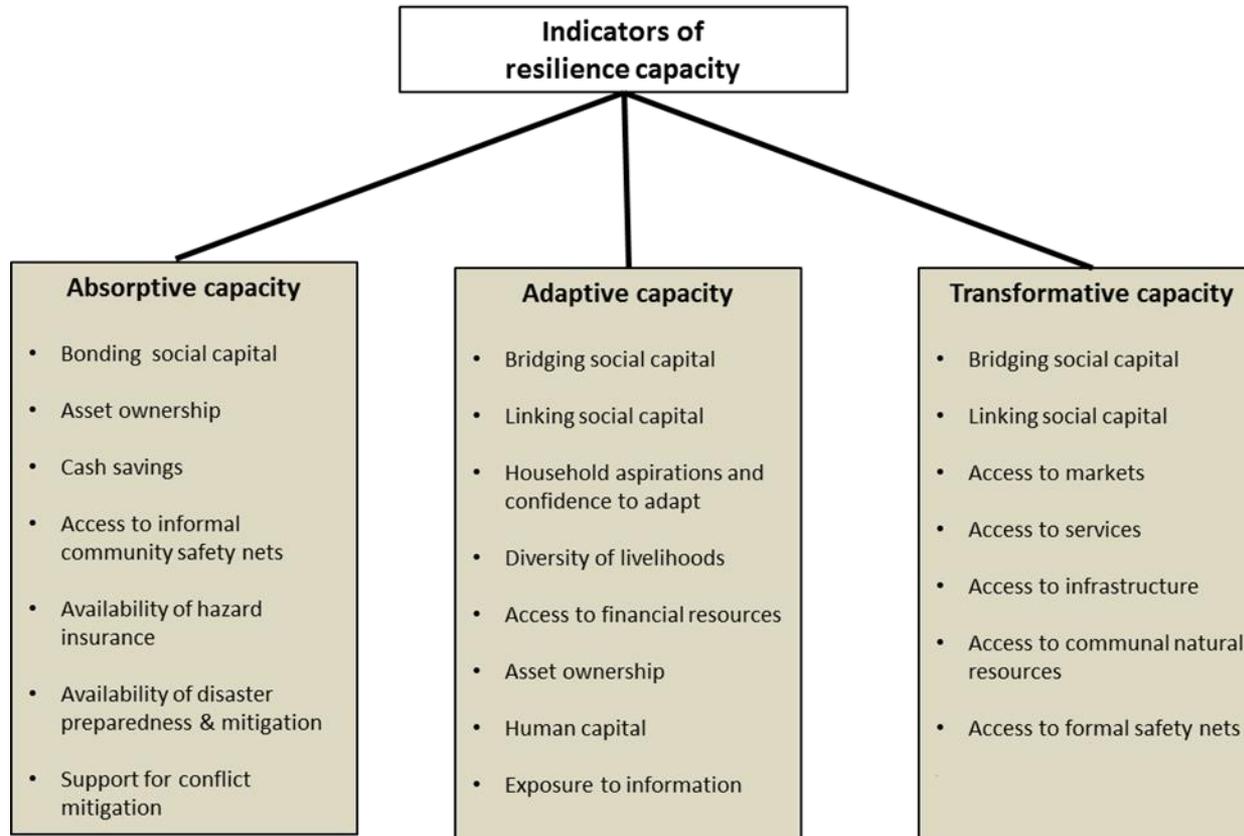
- Used perceived ability to recover measure (same 1-year recall period at baseline, midline and RMS RI)
- RISE area as a whole: No change in ATR
Burkina Faso: **Increased** by 12.2 %
Niger: **Decreased** by 9.5%



Shock recovery: Role of household resilience capacities



Shock recovery: The role of resilience capacities



Indicators → Indexes of three dimensions and an overall index

Shock recovery: The role of resilience capacities

Did households' resilience capacities (as measured at midline) boost their resilience to the shocks experienced during RMS?

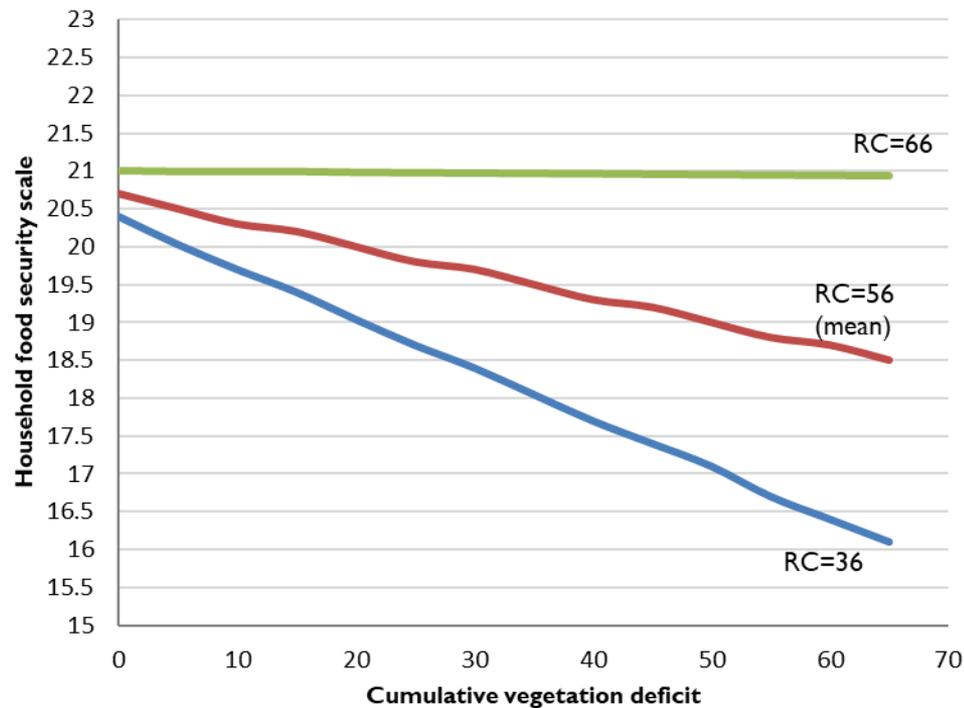
YES

Evidence from regression analysis :

- Positive association between overall index of RC both long- and short-term realized resilience
- Positive association between overall index of RC and food security stability over the RMS period
- Household's RCs reduced the negative impact of shocks on their food security

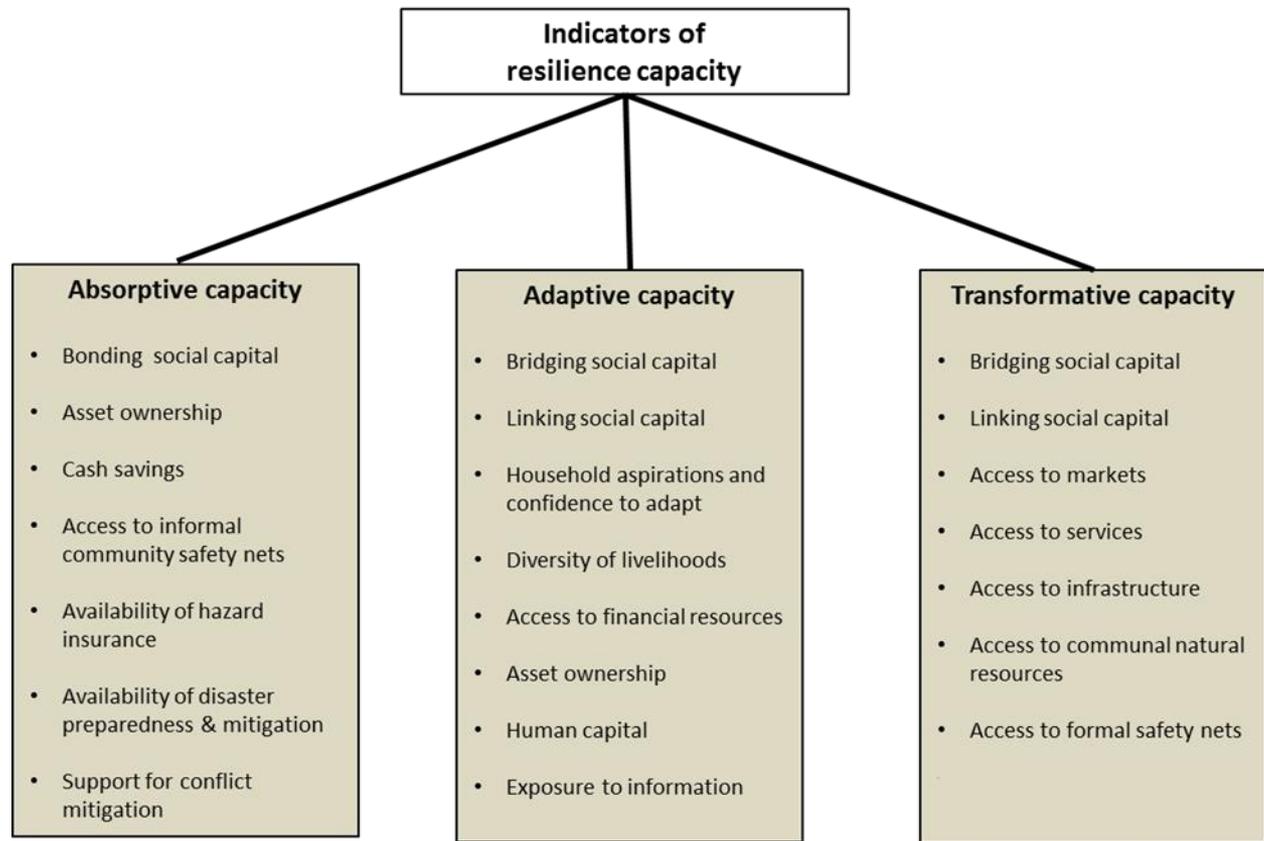
Shock recovery: The role of resilience capacities

Estimated recovery trajectory with increasing vegetation deficit at differing levels of resilience capacity (Burkina Faso program area)



Shock recovery: The role of resilience capacities

Households' initial resilience capacities played a stronger role in boosting resilience in the Burkina Faso area than the Niger area



Burkina Faso ✓

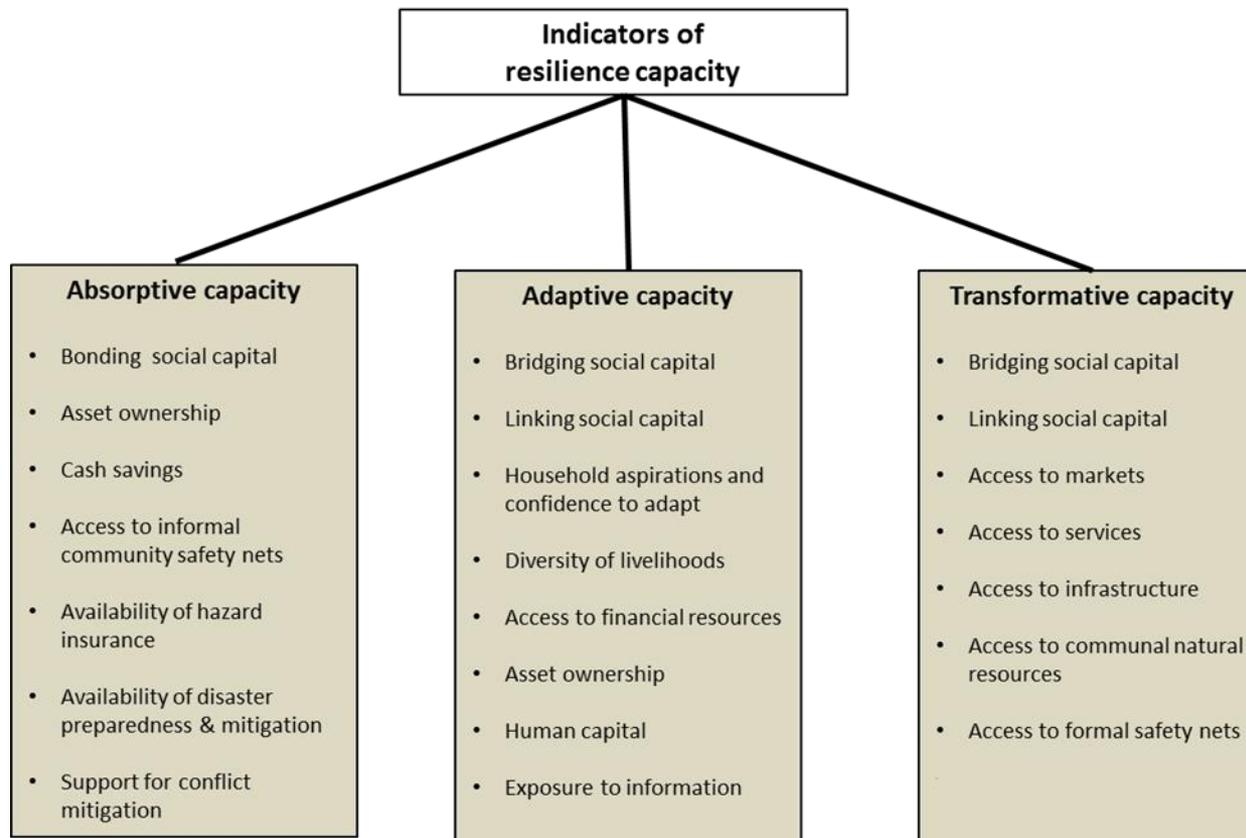
Burkina Faso ✓

Niger ✓

Burkina Faso ✓

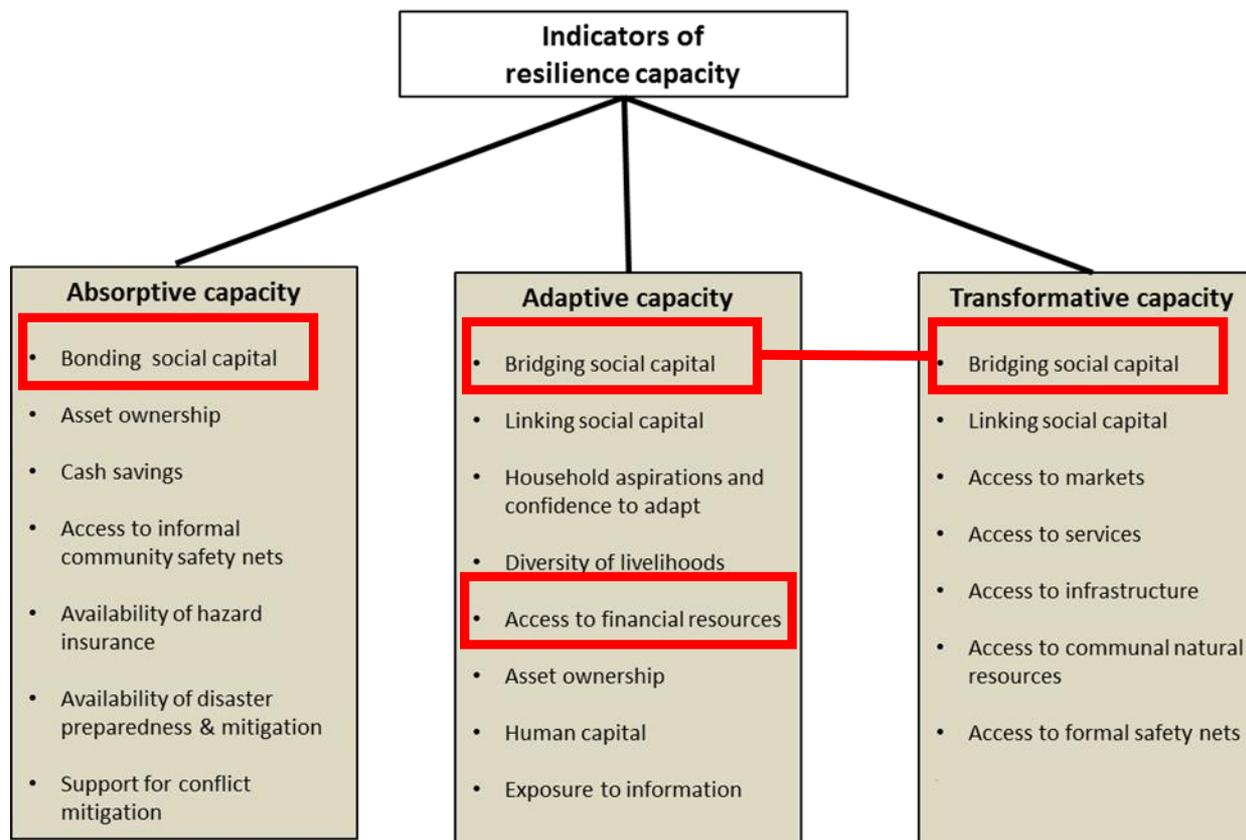
Shock recovery: The role of resilience capacities

Specific, individual resilience capacities are the actionable programming and policy levers that can potentially strengthen households' resilience in the future. **Which boosted' resilience?**



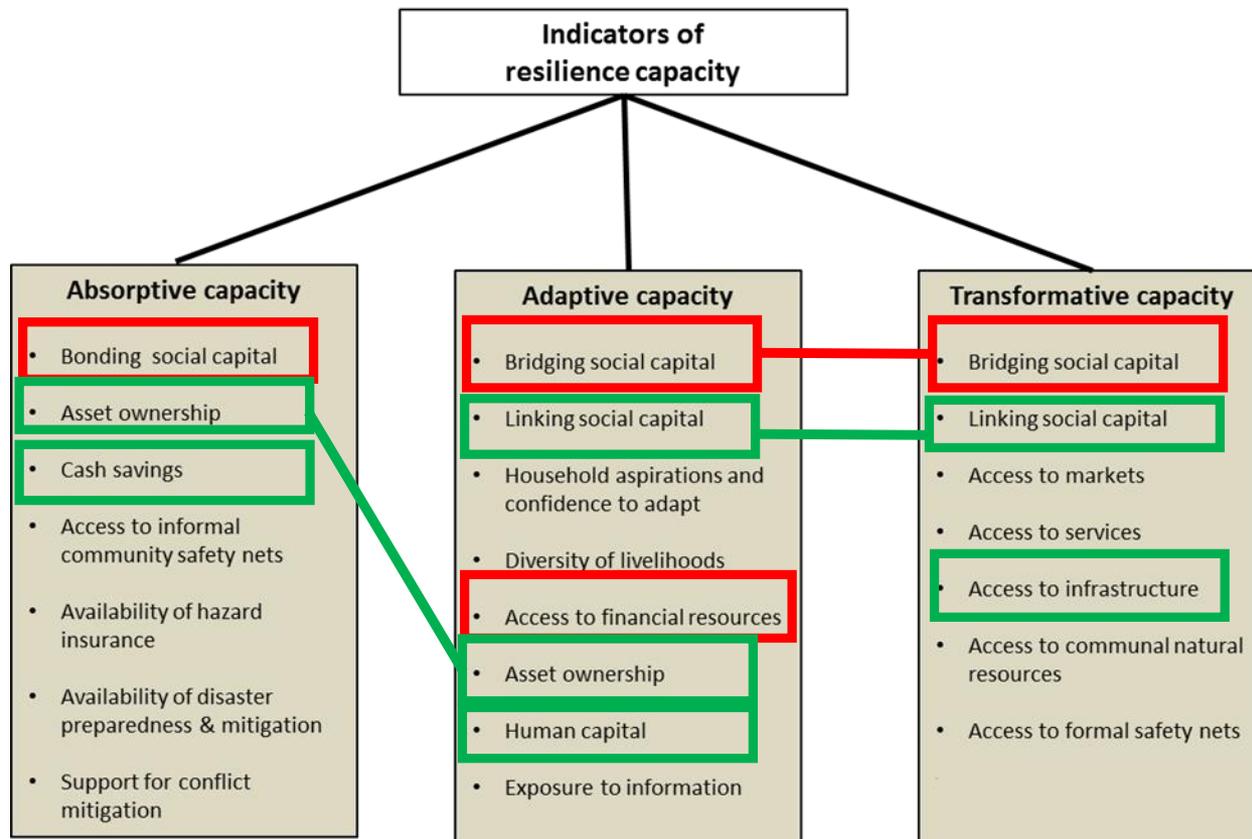
Shock recovery: The role of resilience capacities

Three capacities stand out as having likely strengthened households' resilience to shocks in all RISE surveys: baseline, midline and RMS



Shock recovery: The role of resilience capacities

Five were found to have likely strengthened households' resilience to shocks in at least two RISE surveys:



Shock recovery: Role of RISE interventions



Shock recovery: The role of RISE

Methods

- Look at difference between two groups (50% each)
 - High exposure: Received resilience programming from REGIS-ER and/or REGIS-AG
 - Low exposure: Did not

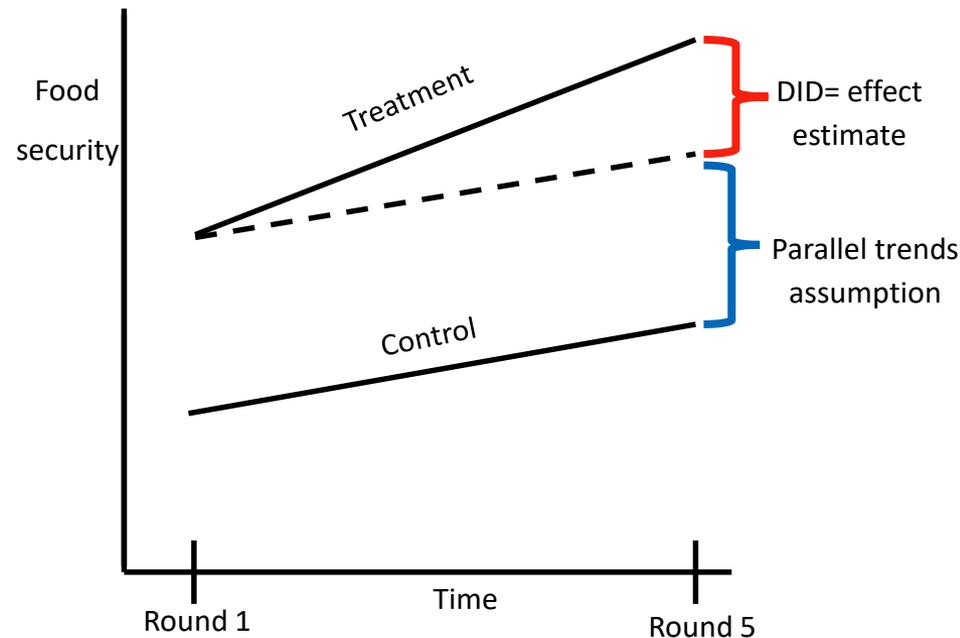
- Regression analyses
 - **Realized resilience:** Standard growth regression
 - **Stability:** Probit regression
 - **ATR:** OLS regression

- Independent variables:
- Shock exposure
 - Initial food security
 - Socio-demographics
 - Livelihood group (agriculture, pastoralism, other)
 - Asset index

Shock recovery: The role of RISE

Methods

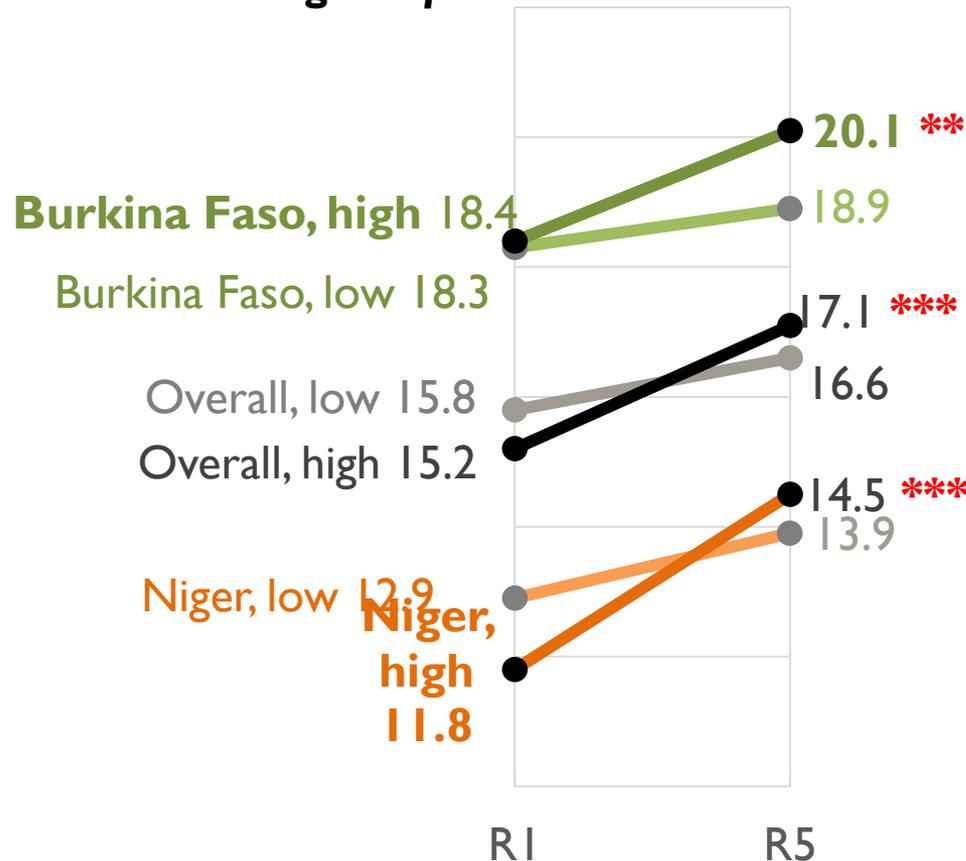
- Difference-in-difference analysis



Note:
Exploratory
analysis in
advance of
formal
impact
evaluation
(endline)

Shock recovery: The role of RISE

Descriptives: Change in food security over the RMS period for RISE low- and high-exposure households



Shock recovery: The role of RISE

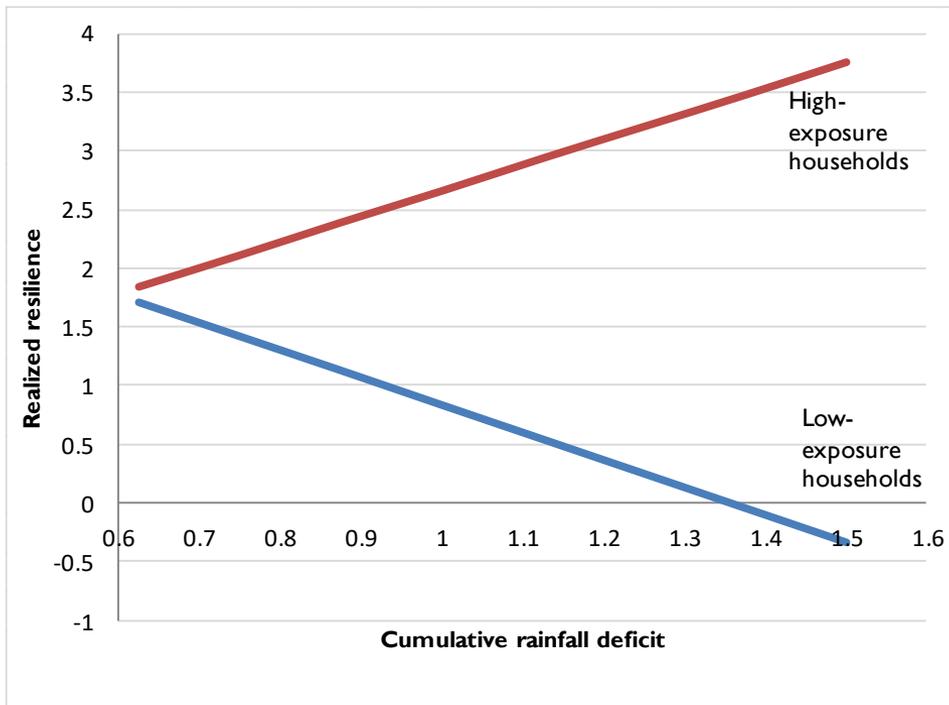
Findings (suggestive evidence)

Rise interventions

- Have had a positive impact on households' ability to recover from the shocks faced over the RMS period
- Helped Niger households maintain stability in their food security in the face of drought
- Reduced the negative impact of drought on Niger households' ability to maintain their food security
- Reduced the negative impact of flooding on Burkina Faso households' food security

Shock recovery: The role of RISE

Estimated recovery trajectory as the cumulative rainfall deficit over the RMS period increases for low- and high-exposure households (Niger)



Note:

Positive impacts are due to program's efforts to strengthen households' resilience capacities. Endline Impact Evaluation will pinpoint which.

Implications for programming



Implications for programming

Recommendations

- Redesign and expand safety nets
- Expand the focus of Disaster Risk Reduction activities beyond droughts to include floods
- To deal with rising violent extremism, implement interventions that focus on conflict mitigation



Implications for programming

Recommendations

- Continue to invest in savings groups to strengthen social capital, especially in areas where social capital is beginning to erode
- Continue to strengthen households' adaptive capacity
- Continue to strengthen transformative capacity



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