STRATEGIC RESILIENCE ASSESSMENTS

Applying a resilience lens to development strategies & programs

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Session Overview

❯ Conceptual Background

❯ STRESS Overview

❯ Applications & Experiences

Resilience Measurement Practical Guidance Series:

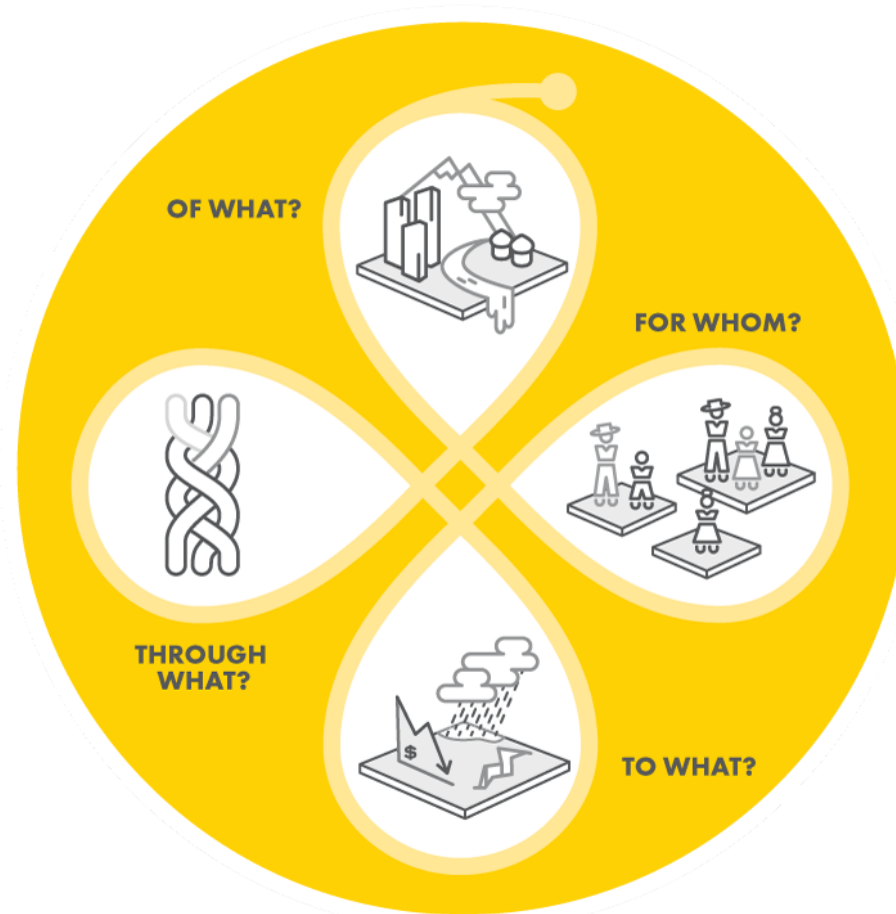## Guidance Note No. 1 – Risk & Resilience Assessments

Resilience Questions

SYSTEMS

CAPACITIES

PEOPLE

SHOCKS/ STRESSES

OF WHAT?

FOR WHOM?

THROUGH WHAT?
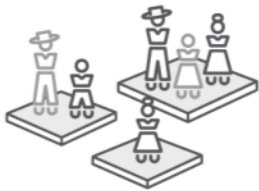
TO WHAT?

Resilience to What End?

- Meaningful employment maintained or improved
- Income stability and growth
- Health status maintained or improved
- Food security and nutrition maintained or improved

Conceptual Framework
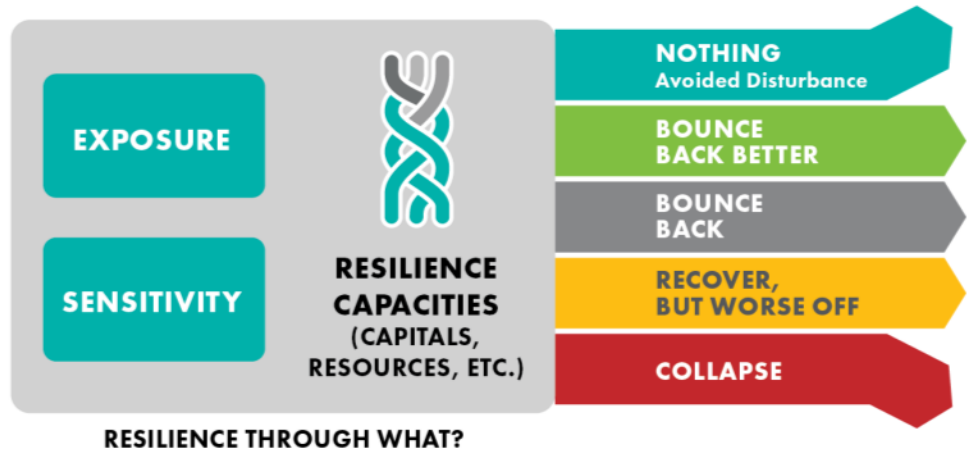
Resilience Capacities

- Ability of people, communities and systems to achieve improved well-being in the face of shocks and stresses

RESOURCES

STRATEGIES

STRESS
Overview

What is a STRESS?

- A strategic-level assessment process for understanding risk, drivers and required capacities to build resilience in a given context

- helps develop effective, measurable resilience-building strategies

- considers the complex interactions that exist between risks, people and the socio-ecological systems in which they live

- anchored in the five resilience questions

What's unique about a STRESS?

SYSTEMS-FOCUSED

SECTOR-NEUTRAL

MULTIPLE SCALES

MULTIPLE TIME FRAMES

ANALYSIS OF RISKS AND RISK PROFILES

ANALYSIS OF RESILIENCE CAPACITIES

STRESS Phases:

❭ **Scope: Review team and expert knowledge through participatory workshops and identify knowledge gaps**

❭ **Inform: Conduct secondary literature review; complement with qualitative field methods**

❭ **Analyze: develop risk profiles and evaluate resilience capacities**

❭ **Strategize: develop a resilience-focused, measurable theory of change**

Phase 1: SCOPE

❭ **Determine the purpose, scope and scale**

❭ **Gather collective knowledge through workshops and rapid literature review**

❭ **Conduct systems mapping**

❭ **Identify knowledge gaps**

❭ **Prepare data collection plan**

Systems Mapping

RESILIENCE OF WHAT?

Land Conditions

Water Availability

Gender Norms

Farm Production

Consumption Practices

Food Security

Gender Norms

Income

Non-farm livelihoods

Finance

Markets

Government Regulation

RESILIENCE TO WHAT?

Shocks and Stresses

Excess Rain +

Drought +

Floods +

Land & Water **Availability** -

Conflict +

Farming Production -

Food Prices — Sky High! Expensive Moderate Reasonable

Food price shocks +

Income -

Stress migration +

Emergency borrowing +

Debt +
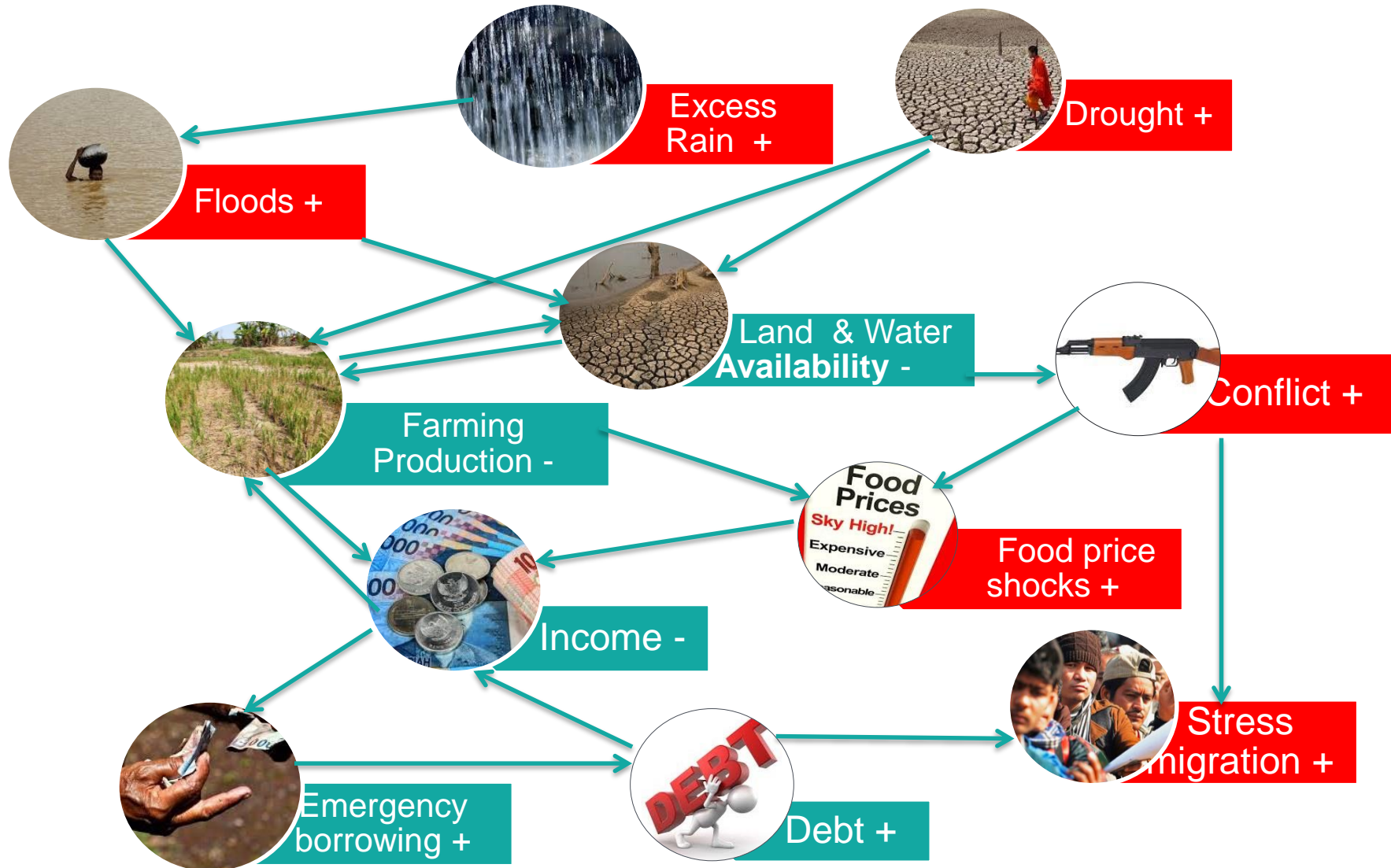
Phase 1: Scoping Outputs

1) A preliminary <u>systems analysis</u> defining interaction between:
   - development or systemic constraints
   - shocks and stresses
   - gendered impacts

2) A preliminary understanding of <u>resilience capacities</u> – current and potential

3) A detailed <u>research plan</u> that identifies key knowledge gaps, primary data collection methods, and a sampling strategy.

Phase 2: INFORM

❯ **Data collection should be focused and narrowed**

❯ **Fit for purpose, time and scale:**

❯ **Focus on knowledge gaps:**

❯ **Draw on existing tools and methods:**

• **Secondary Data review**

• **Qualitative interviews**

• **Quantitative Survey**

Phase 3: ANALYZE

KEY DELIVERABLES:

❭ **Development trends, with focus on systemic relationships**

❭ **Risk Analysis:**
- **Shocks/stresses to systems and target populations**
- **Risk drivers and impacts**
- **Risk profiles of target populations**

❭ **Resilience Capacity Analysis:**
- **Existing v. required resilience capacities;**
- **Underlying factors preventing access and use of resilience capacities**

Phase 4: STRATEGIZE

KEY DELIVERABLES:

> Theory of Change

> M&E Framework

> Resilience-building strategies/logic chains
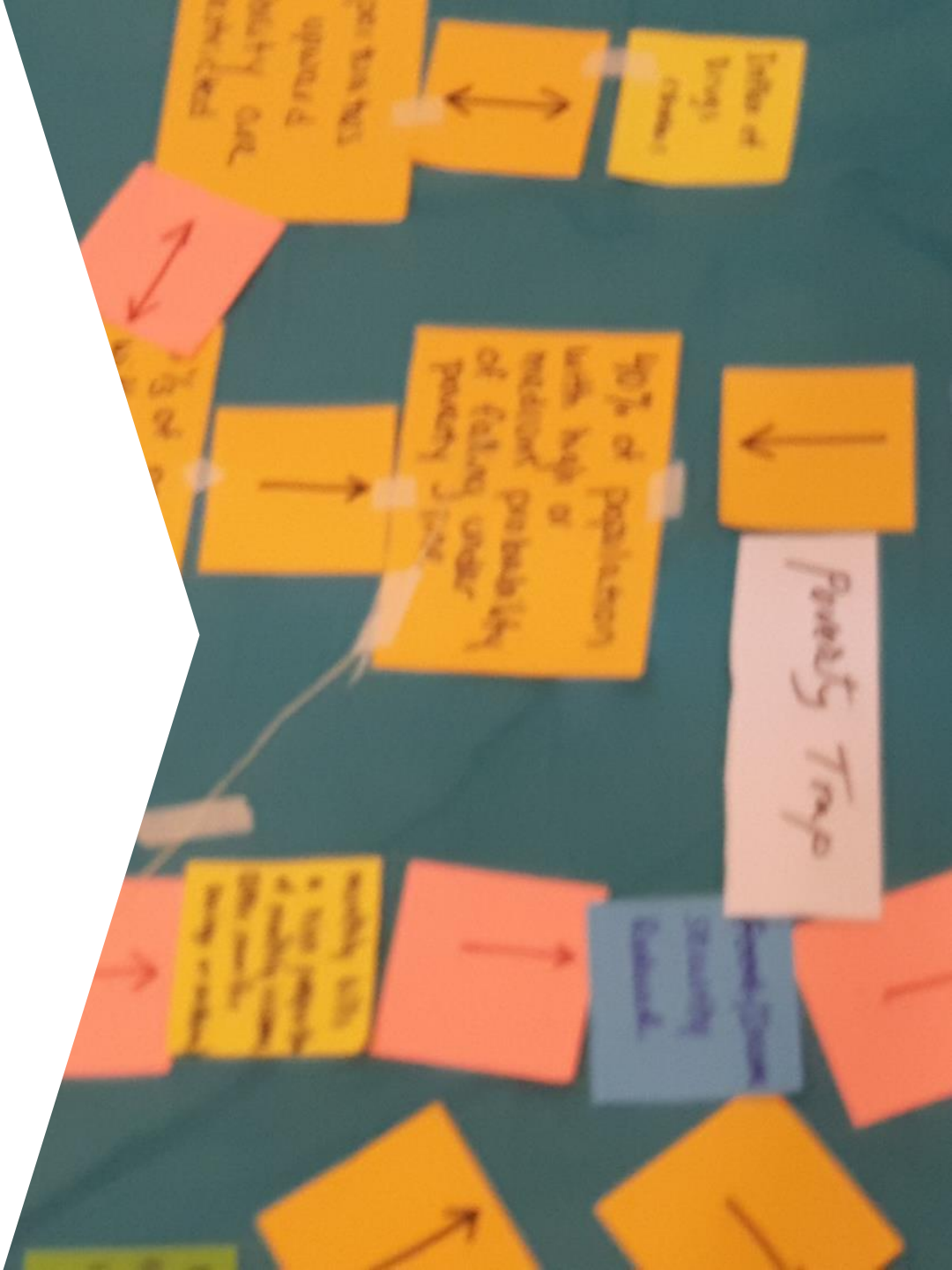
STRESS Deliverables:

Risk Profile	• Trends and interactions between shocks and stresses, and system dynamics
Resilience Capacities	• Existing and required <u>resources</u> – social, physical, financial, natural, political, human- <u>and how they must be applied</u> to mitigate risk
Theory of Change	• A high-level logical pathway defining the relationship how resilience capacities can support achieving well-being outcomes in the face of risk

STRESS
Examples
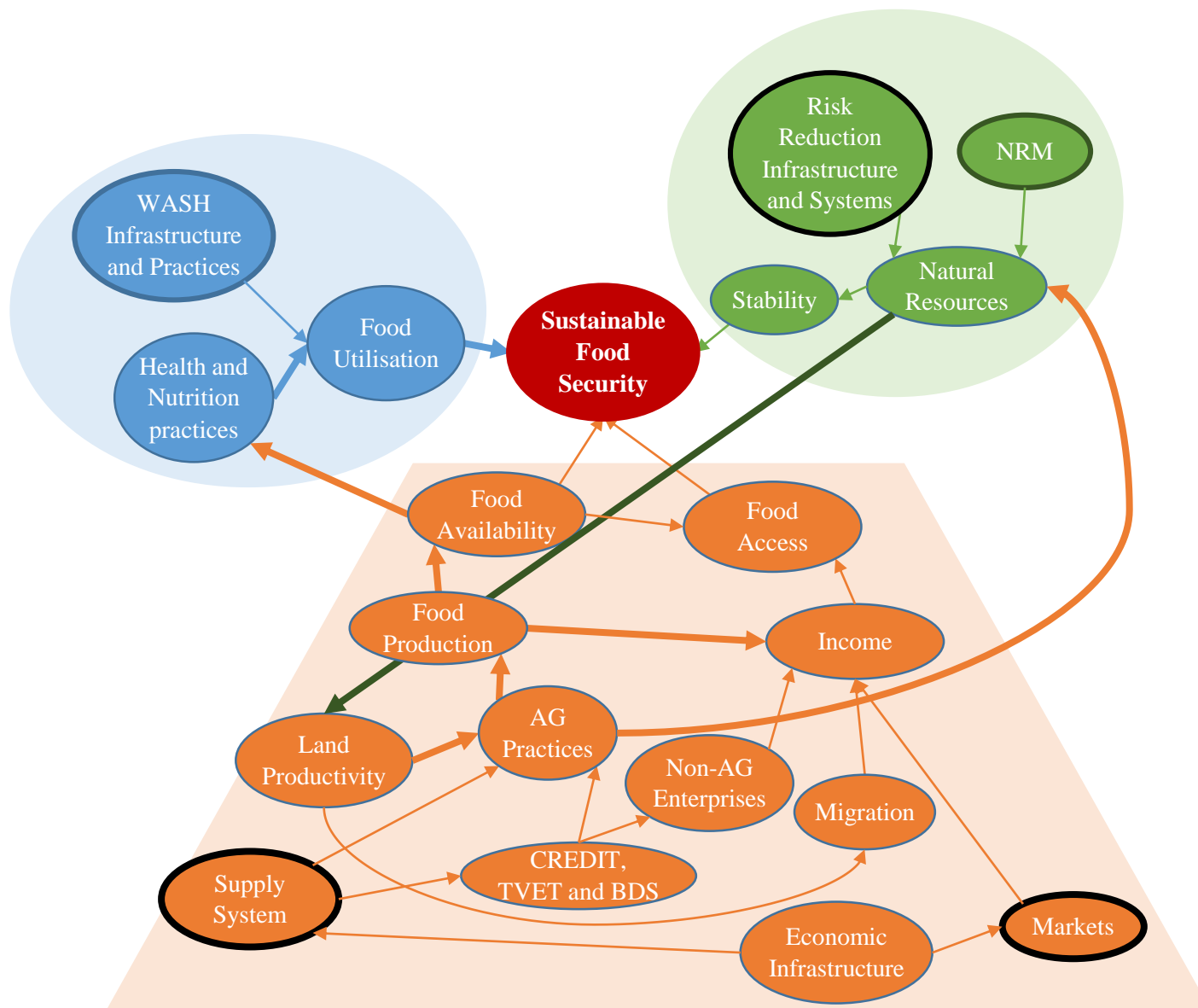
Nepal

Case 1: Nepal
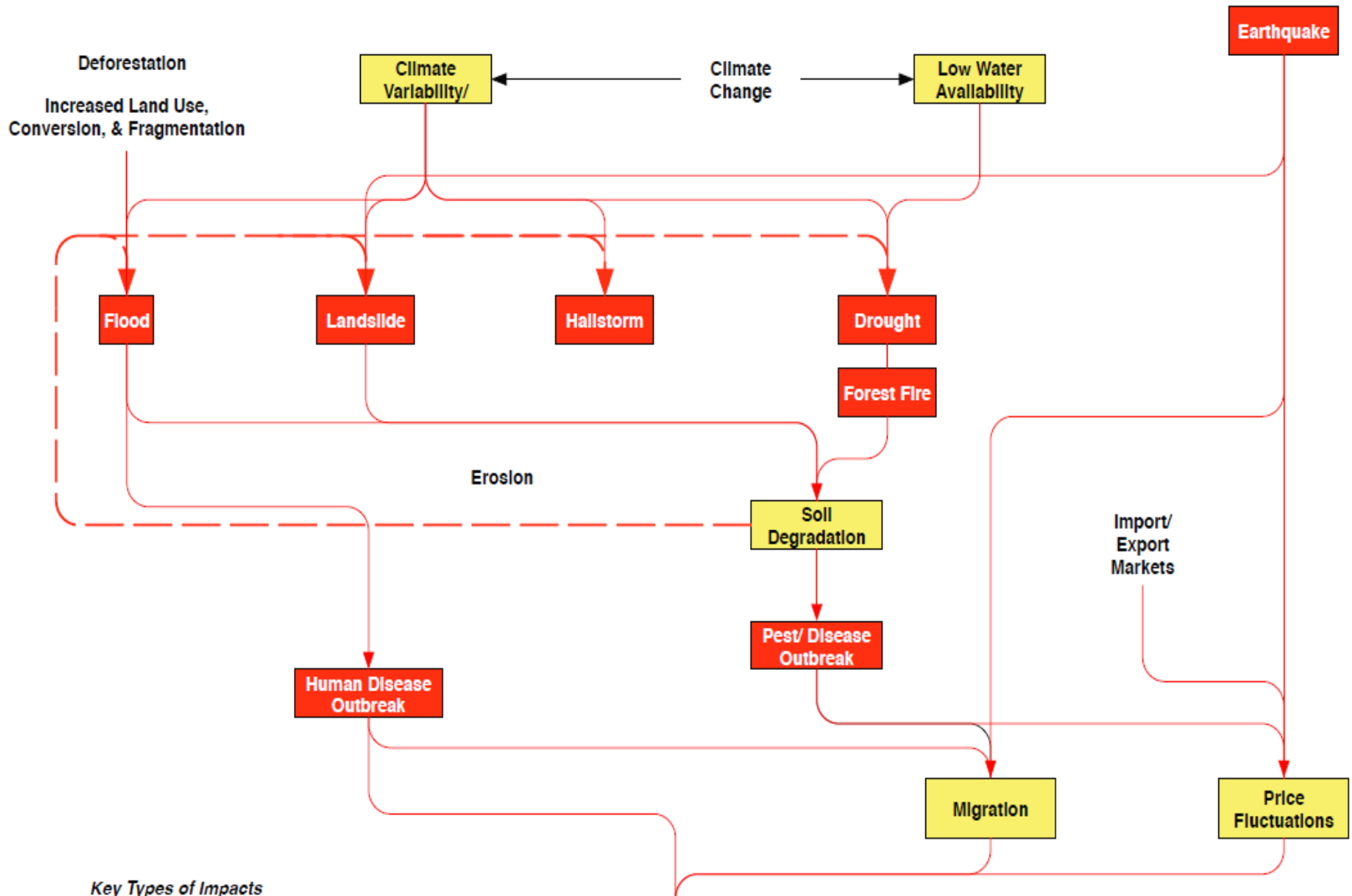
Case 1: Nepal
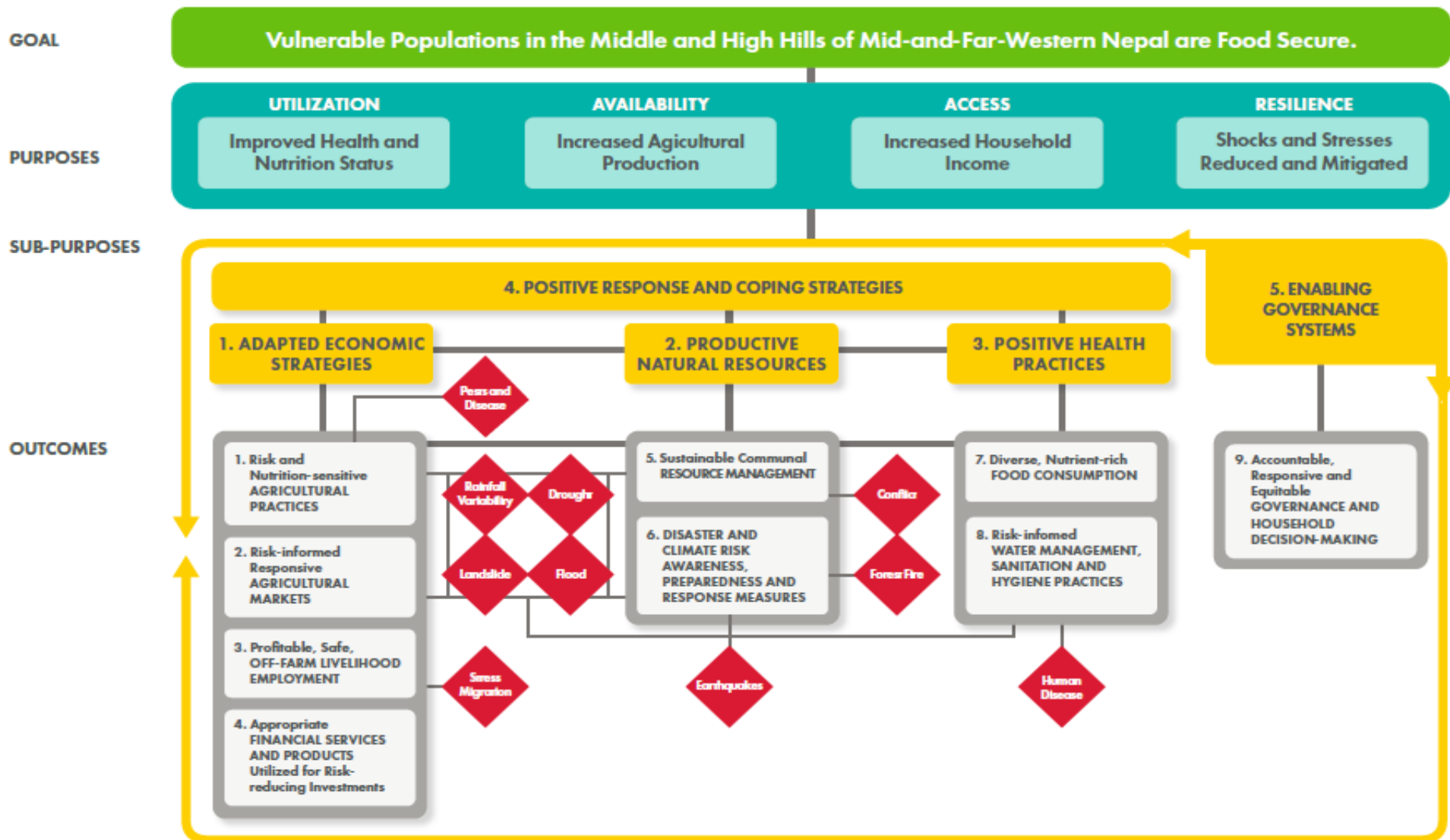
Case 1: Nepal

Case 1: Nepal

Key Findings

〉 **Access to key resources alone is insufficient to determine resilience; use is critical and relies on a strong knowledge base and an enabling environment**

〉 **Informal norms and formal rules and regulations are underlying factors that determine access and use of resilience capacities**

Programming Implications

〉 **Build voice and participation as part of underlying social and behavioral change strategy**

〉 **Strengthen cross-sectoral governance approach**

〉 **Foster social capital and networks**

TRANSFORMING CHENNAI

Building Micro, Small, and Medium Enterprise Resilience to Water-Related Environmental Change

NOVEMBER 2016

Context

Chennai and its environs received a record-breaking 272 mm of rainfall in just 12 hours on December 1, 2015. This was 50% more than the city typically receives in the entire month of December, and came after more than a month of monsoon rains that had already saturated the ground. Floods inundated the city, including the airport, major train stations, and roads in and out of the metro area.[1] The floods, reported to be the worst in a 100 years, resulted in the displacement of over 1.8 million people in the city, with economic losses estimated at $7.43 billion – $14.67 billion, making it the eighth most expensive natural disaster in the world in 2015.[2] Both the flooding and its impacts were exacerbated by recent development patterns, in which urban expansion has taken place in hydrologically vulnerable areas.[3]

1. Pararam, S. (2015). Chennai floods a climate change wake-up call for world. CNN.
2. Maniasivam, S., & Gopichandran, V. (2016). The Chennai floods of 2015: urgent need for ethical disaster management guidelines. Indian Journal Of Medical Ethics. 1(2 (NS)), 101
3. Narasimhan, B., Bhallamudi, S.M., Mondal, A., Ghosh, S., and Mujumdar, P. (2016) Chennai floods 2015. A rapid assessment. ICWR, IISc Bangalore.

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Chennai

Chennai Causal Systems Map

New developments ignore drainage regulations

Urban expansion into upstream areas

Extreme rain event

Ground is saturated from previous rain

Cimate change results in more extreme weather events, number of cyclones, sea-level

Industrial zones shift to upstream locations as city center real-estate value increases

Increase in impermeable surface

High tide getting higher

Reduced land set-aside as green space

City infrastructure is damaged

Service costs are not recovered in full

Improper materials used to build roads, drainage channels

Runoff exceeds carrying capacity of municipal drainage system

Engineers cut roads to control flooding

Residential zones are prioritized

Insufficient operations & maintenance

Ageing is reducing infrastructure efficiency

Waste blocks open drainage channels

Business Centers (main arteries) are flooded

Unpermitted modifications by building/house owners

Deforestation

Industrial Zones are flooded

SMEs lose place in supply chain

Structural Damage

No Insurance

SMEs are lost

Insurance payouts are slow

Inventory losses (stock, final products)

Reduced tax base, reduced ability to pay for services

Increased unemployment

Products are unavailable, services disrupted

Insurance is underpaid

Capital equipement losses

SMEs are slow to recover

Insufficient Savings

Staff lose homes

SMEs repeatedly lose money

Chennai Capacities Systems Map

New developments meet drainage regulations

Urban expansion into upstream areas

Forest/green cover expanded & maintained

Extreme rain event

Ground is saturated from previous rain

Cimate change results in more extreme weather events, number of cyclones, sea-level

Industrial zones shift to upstream locations as city center real-estate value increases

Land set-aside as green space through effective land-use planning/zoning

High tide getting higher

Increase in permeable surface

City infrastructure damaged less frequently

Service costs recovered in full

Proper materials used to build roads, drainage channels

Runoff rarely exceeds carrying capacity of municipal drainage system

Engineers control flooding more effectively

Less need to prioritize flooding business zones

Prevention

Effective operations & maintenance

Infrastructure efficiency maintained

Drainage channels are not blocked

Business Centers (main arteries) less likely to be flooded

Industrial Zones less likely to be flooded

Effectively permitted modifications by building/house owners

Green infrastructure solutions

Response

Additional investments in flood protection

SMEs remain in supply chain

Structures less affected

SMEs are not lost

Affordable insurance options available

Inventory less affected (stock, final products)

Stable tax base, ability of households to pay for services

Employment rates unaffected

Products and services are available

Insurance payouts are efficient and fair through controls

Capital equipement less affected

SMEs are stable sources of income

SMEs recover quickly

Increased savings available

Staff do not lose homes

Case 2: Chennai

Key Findings

❯ Chennai's fragmented institutional and infrastructure context creates **challenges for balancing economic growth with environmental safeguards for resilience**

❯ **Damage and recovery, particularly for MSMEs, depends as much on business environment as it does on the intensity of the disaster**

❯ **Financial products are often slow, inaccessible or ill-designed for MSMEs, undermining small business growth and stability**

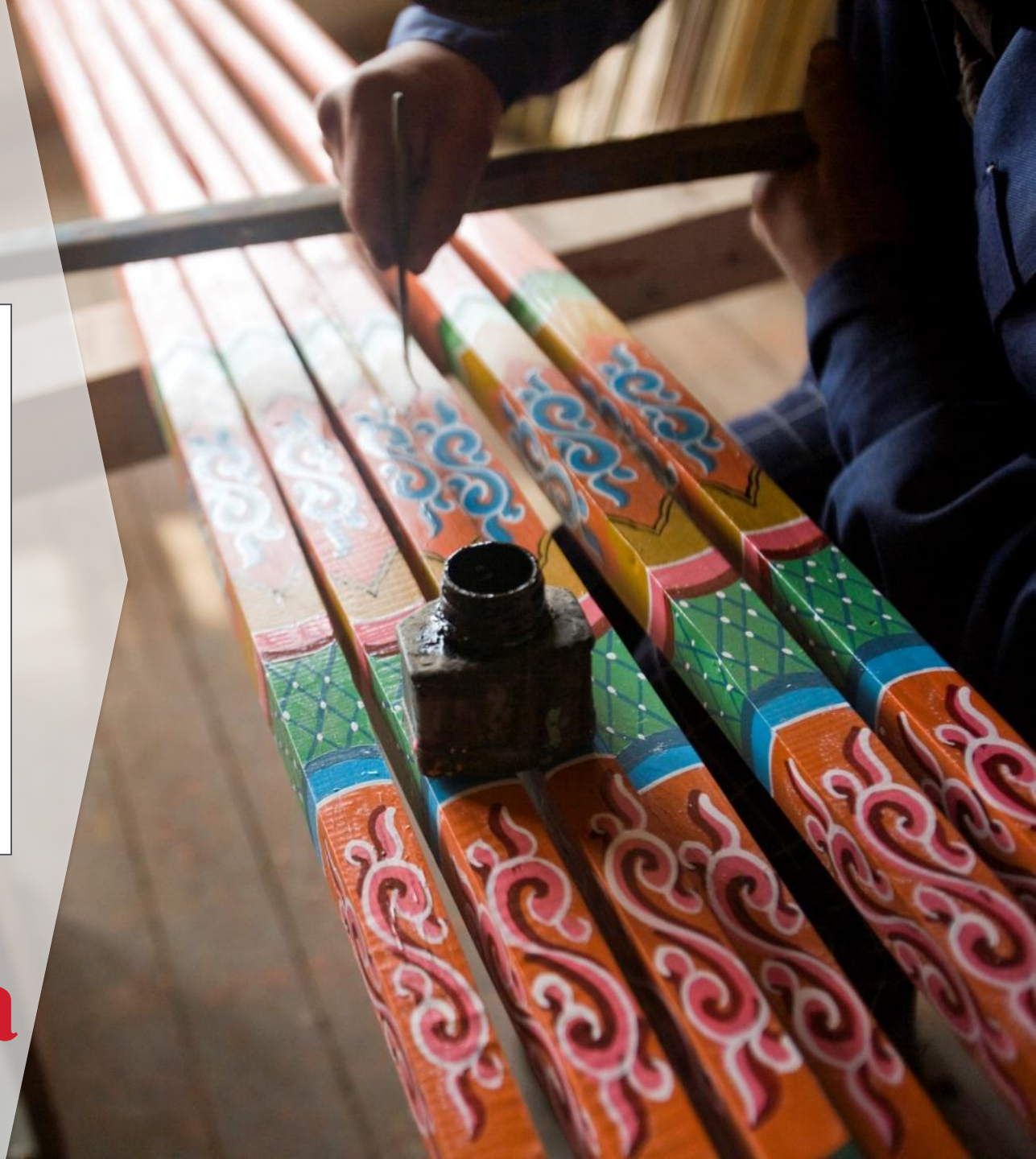**MONGOLIA STRATEGIC RESILIENCE ASSESSMENT**
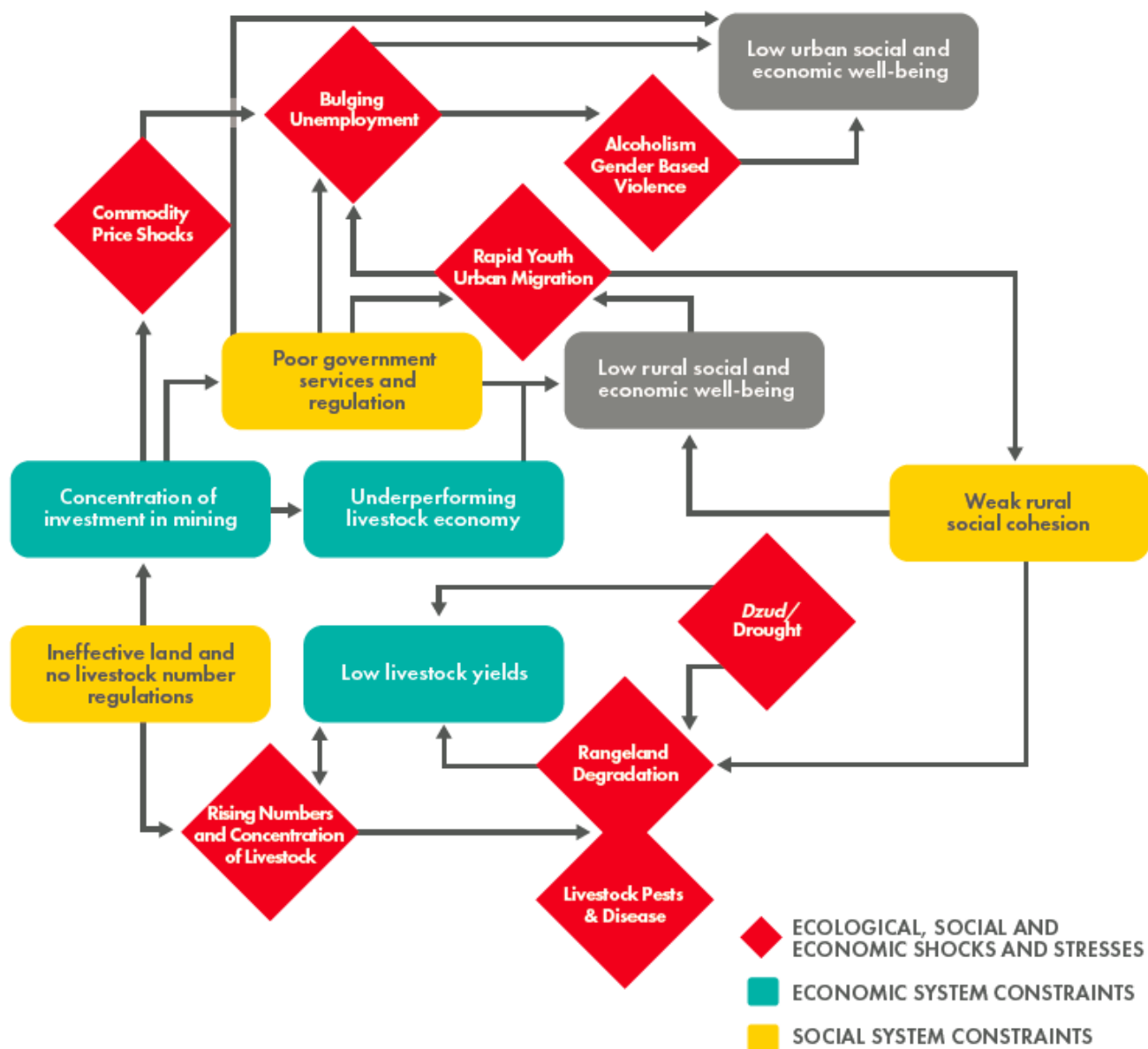
Final Report

APRIL 2017

MERCY CORPS

Mongolia

Mongolia: Urban-Rural linkages

ECOLOGICAL, SOCIAL AND ECONOMIC SHOCKS AND STRESSES
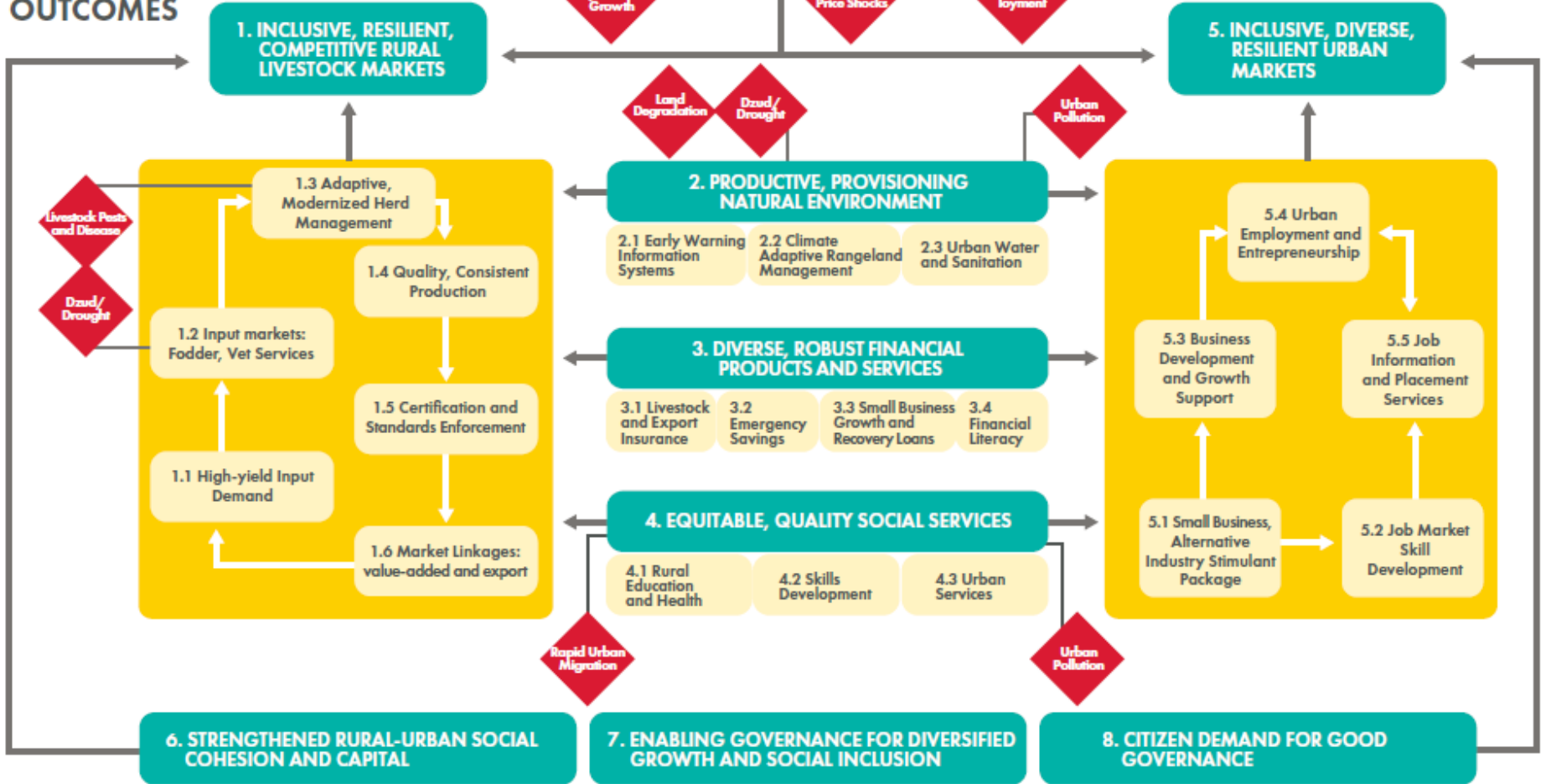
ECONOMIC SYSTEM CONSTRAINTS

SOCIAL SYSTEM CONSTRAINTS

GOAL

Sustained gains in economic and social quality of life among Mongolia's herders and transitioning populations

OBJECTIVES

| Sustained gains in rural incomes, services and social cohesion | *Results Trajectory* Youth Engagement in Livestock economy | *Results Trajectory* Growth of Alternative Economic hubs | Balanced, sustainable, inclusive urban growth |

Rapid Urban Growth

Commodity Price Shocks

Unemployment

OUTCOMES

1. INCLUSIVE, RESILIENT, COMPETITIVE RURAL LIVESTOCK MARKETS

5. INCLUSIVE, DIVERSE, RESILIENT URBAN MARKETS

Land Degradation

Dzud/ Drought

Urban Pollution

Livestock Pests and Disease

Dzud/ Drought

1.3 Adaptive, Modernized Herd Management

1.4 Quality, Consistent Production

1.2 Input markets: Fodder, Vet Services

1.5 Certification and Standards Enforcement

1.1 High-yield Input Demand

1.6 Market Linkages: value-added and export

2. PRODUCTIVE, PROVISIONING NATURAL ENVIRONMENT

2.1 Early Warning Information Systems

2.2 Climate Adaptive Rangeland Management

2.3 Urban Water and Sanitation

3. DIVERSE, ROBUST FINANCIAL PRODUCTS AND SERVICES

3.1 Livestock and Export Insurance

3.2 Emergency Savings

3.3 Small Business Growth and Recovery Loans

3.4 Financial Literacy

4. EQUITABLE, QUALITY SOCIAL SERVICES

4.1 Rural Education and Health

4.2 Skills Development

4.3 Urban Services

5.4 Urban Employment and Entrepreneurship

5.3 Business Development and Growth Support

5.5 Job Information and Placement Services

5.1 Small Business, Alternative Industry Stimulant Package

5.2 Job Market Skill Development

Rapid Urban Migration

Urban Pollution

6. STRENGTHENED RURAL-URBAN SOCIAL COHESION AND CAPITAL

7. ENABLING GOVERNANCE FOR DIVERSIFIED GROWTH AND SOCIAL INCLUSION

8. CITIZEN DEMAND FOR GOOD GOVERNANCE

Case 3: Mongolia

Key Findings

❯ **Rural livestock economy essential to balanced growth:**

- **Perceptions and low services are driving people to cities, not winter blizzards**
- **Requires YOUTH buy-in to rural livestock economy**
- **Need to build social capital and networks across urban-rural areas**

❯ **Simultaneous focus on urban and rural services job growth**

❯ **Need for expanded partnerships**

Key Takeaways

➢ STRESS is an assessment approach, not strict methodology

➢ Needs to be "fit to size" based on purpose, scope and scale

➢ Focus on systems mapping in relation to well-being outcomes, risk analysis and resilience capacities

➢ Draw on existing knowledge

➢ Centered on multi-stakeholder engagement and capacity

Thank You!

Tom Van Cakenberghefor Mercy Corps