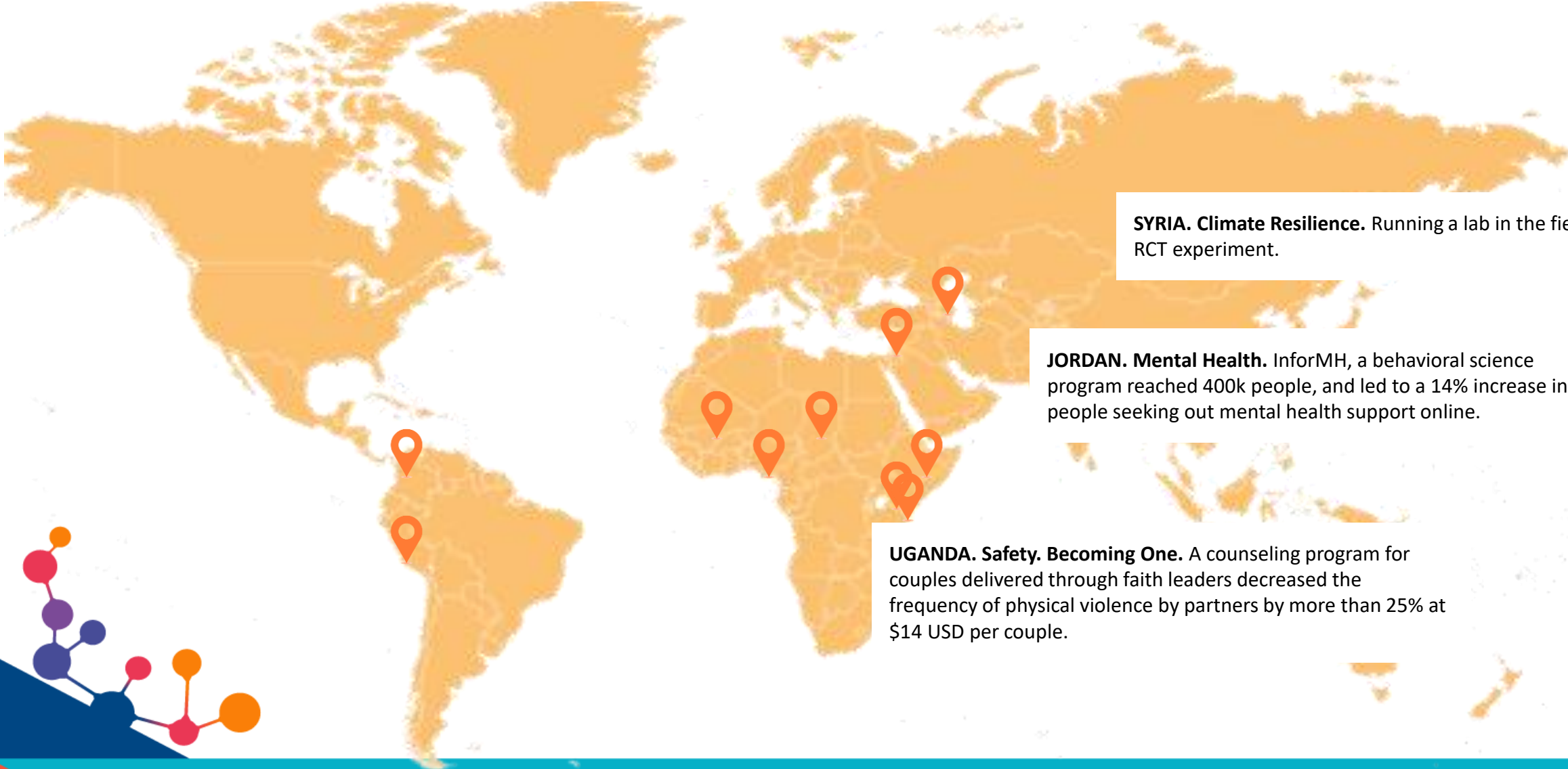# A *simple* behavioral toolkit for *complex* systems

Britt Titus & Marie Stege

In collaboration with
Alexandra De Filippo &
Ruth Schmidt

Over 25 behavioral science projects in 15 countries, on 4 continents

SYRIA. Climate Resilience. Running a lab in the field and RCT experiment.

JORDAN. Mental Health. InforMH, a behavioral science program reached 400k people, and led to a 14% increase in people seeking out mental health support online.

UGANDA. Safety. Becoming One. A counseling program for couples delivered through faith leaders decreased the frequency of physical violence by partners by more than 25% at $14 USD per couple.

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Standard approach to BI

1 PROBLEM DEFINITION
Understanding the problem

2 TARGET BEHAVIORS
Defining target behaviors

3 IDEATION
Interventions from evidence to change behaviors

4 EXPERIMENT
Designing & running experiments

5 SCALE
Scaling solutions

Why a new approach to BI is needed

Challenges

BeSci is increasingly being used for more complex topics

- Limitations using BeSci due to

  - Solution already in mind

  - Specific target behaviors

  - Assumes problem is behavioral

  - Prioritising what's "measurable"

Approach

Solving this requires an interdisciplinary approach:

- Systems thinking

- Design thinking

- Futures thinking

Our approach to BI

2 Define the problem *systematically*

3 Validate the problem with people

4 Identify & prioritize leverage points for change

5 Behavioral Brief

1 PROBLEM DEFINITION
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Wicked Problem: The seed system in Pakistan

- Seed system suffers from **low quality seeds,** not suitable for the climate

- **In 2022, devastating flooding exacerbated the situation**

    → **Need an intervention to ensure seed security**

33 million people affected by the flood

Project's Aim

…. design a new solution to respond to the growing seed system challenges in Pakistan

1) Define the problem systemically

We want:
To define problem and capture our assumptions about the system

We do not want:
To fall into pitfall of narrowing too early on specific actor, behavior, or problem

1) Define the problem systemically

What/who is hindering this ideal state?
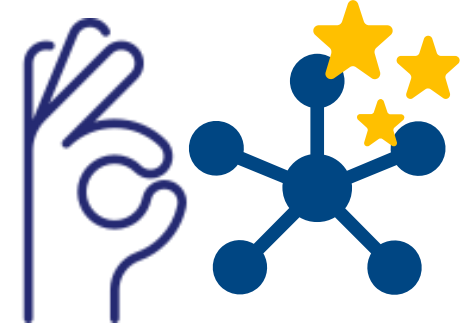
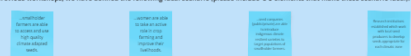*What would an ideal seed system look like?*

1) Define the problem systemically

Outcome Situational Analysis: Qualitative Brief

Team's Ideal State
From previous workshops, we have defined the following ideal scenario (please include 3-5 elements that make these scenario ideal):

Hypothesized Main Barriers
From previous workshops, we have identified the following as the main (behavioural & systemic) challenges blocking the ideal state:

- Physical access to quality seeds
- Access to information/ knowledge
- Access to finance

ASSUMPTIONS TO BE VALIDATED in the qualitative research:

Additional Research Questions:

We hypothesise that these actors are important in the system:	We hypothesise that these are the main responsibilities of this actor in the system:	We hypothesise that, to fulfill these responsibilities, these actors depend on... (think of people and factors)	We hypothesise that these are the main issues for this actor in the system:	What else do we need to learn about?

Male smaleholder farmers	• Seeking info about quality seeds and climate resilient practices
	• Selection of seeds
	• Production of seeds
	• Promotion of seeds
		• agro-dealers: for inputs and info
		• other farmers: role models, info and seeds
		• seed producers: for inputs and info
		• government: for subsidies and seed policies
		• NGOs: for free seeds and info
		• Extension workers: for info and inputs
		• Seed certification to labeling of seeds by producers and distributers
		• Access to land
			• Access to quality seeds
			  • Storage facilities
			  • Poor regulation of seed quality and labeling
			  • Decisions are made in Juba on behalf of the farmers
			  • There are not many agrodealers in outside of major towns
			  • Mistrust new seed varieties by seed companies. Farmers trust the seeds of the neighbors that they see performing
			• Access to finance for agri inputs
			  • **Mistrust** between farmers and microfinance associations (linked to illiteracy)
			• Access to information and knowledge
			  • lack of extension services
			  • limited access to communication channels --> dependence on word of mouth. Only gov, NGO and some youth has access to internet and mobile phones
			  • No knowledge about seed storage
			  • Low literacy rates
				• Do farmers rely on humanitarian aid to get access to seeds?
				• Do farmers trust the inputs provided by NGOs?
				• What motivates farmers?
				• What habits are impacting agricultural practices and the decision of what crop to plant?
				• Who do farmers trust in terms of information?
				• What is expected of a farmer in the communities?
				• Who do they rely on when a) a climate crisis hits like floods or severe droughts b) when conflict affects the community?
				• Are there informal rules and norms which may obligate households with kinship relationships to share with and support one another?
				• What would help to farmers to cope and recover in the face of future shocks on seed system?
				• Decision making around what to plant; maturing time/suitability/access (Unity state: sorg is the major staple crop; the last 2-3 years, sorg is more prone to floods -they switched to maize production; quick maturing time --climatic influence vs traditional practice
				• Preference of varieties: tolerance to drought/foods/short term vs long term: behavioral change
				• Strategies to cope with the risk of floods or drought

Farmer associations	• provision of info about climate resilient practices/seeds • Seed production • Utilization of quality seed • Advocacy • Establishing market linkages	• Farmers: as members • NGOs: help with advocacy, market linkages, info and quality inputs • Seed producers: for inputs	• Lack of availability of quality seed • use of land rase as a source of seed and some poor-quality from unknown sources as seed and use of grain as seed. • Group dynamics/managing the group • Capacity needs	• Challenges from their POV • How do they communicate? Where do they meet? • Where do they get information from?
Agro-dealers	• Act as an outlet for seed to the market	-Seed producers: for inputs -Seed companies: for inputs -Transporters: distribution to market from private companies/gov/research institutions	• few buyers • high taxes • Lack of Transport • Poor packaging, labeling, and high cost of seed, • There are not many agrodealers in outside of major towns	Where is the source of seed? Where do you register as an agro-dealer? What level of inspection of your stores? Are the stores inspected from time to time? How do you handle expire seeds?
Agriculture extension workers (private and public)	• Dissemination of information about quality seed and its importance • Information provision about climate resilient practices	• Government: training, inputs, money • NGO: free seeds, training, transport • Private companies: money, info, inputs, training	• Low capacity of the extension workers and lack of mobility, many farmers to attend to. • Gov do not support extension workers enough --> lack of incentives e.g. low pay and mobility	• How a typical engagement with farmers look like • Challenges from their point of view • Education level and trainings • What is the area of courage? • Means of transport and facilitations. • Incentives • Extension kits like gumboot, raincoat etc.

LEARNINGS

Leveraged team's knowledge of local system to prepare for formative qual in an open way (not focusing on one actor or behavior)

Finding:
We assumed that access to finance, physical access to quality seeds and lack of knowledge are the main issues

2) Validate with qualitative work

AIM

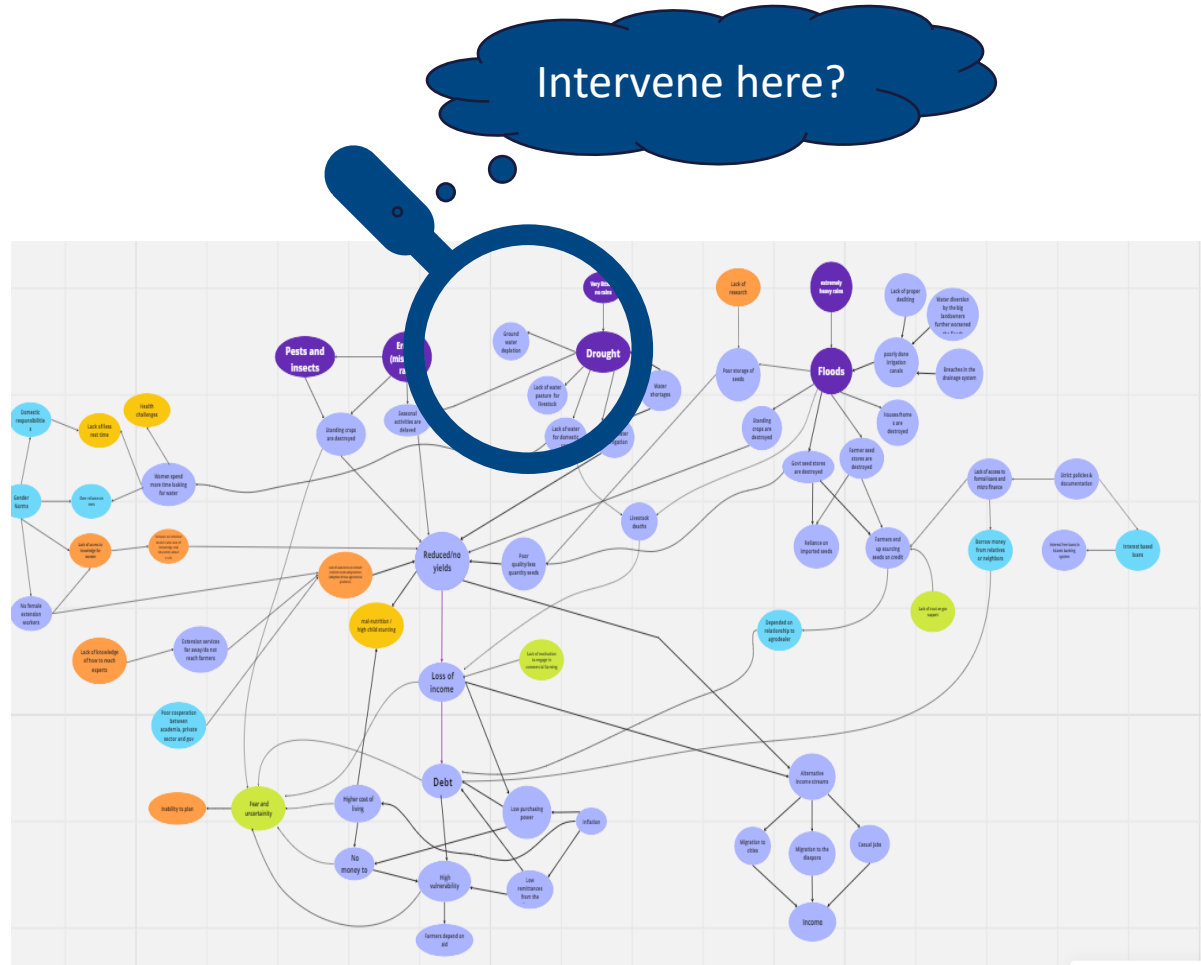Validate assumptions of the system with qualitative work including representatives from main stakeholders.

LEARNINGS

Identified what we missed in our own view of the system and helped define the problem in a different way.

Findings: E.g., Financial access was NOT confirmed as one of the main barriers

3) Identify leverage points for change

Intervene here?

AIM

Identify the points within a complex system where a small shift in one thing can produce big changes in everything by using a **behavioral** systems approach.

LEARNINGS

Sometimes solving a bottleneck might appear to be influential BUT going to the root cause can be better lever for change.

Findings: E.g., Middlemen appeared to be important bottleneck BUT through the causal loop diagram, saw it would be more effective to go beyond them

6) Behavioral brief to inform ideation

## AIM

Summarize prior analysis which enable us to

(1) Ideate on better prioritized **leverage points** in system
(2) Create a different mindset where we consider multiple **actors** whose role is key for change

LEARNINGS

Critical tool to focus on what questions to ideate around

Findings: How might we encourage farmer experimentation with new climate resilient seed varieties?
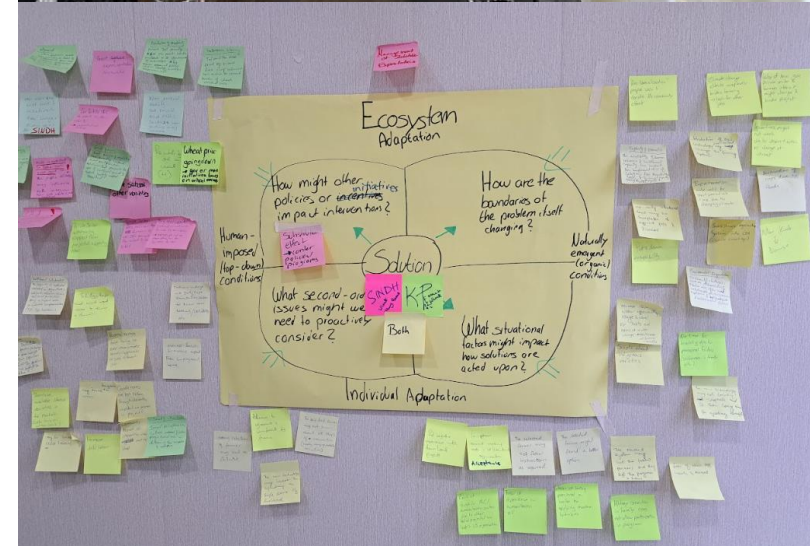
Next steps for the toolkit:

Testing and iterating different approaches for defining the leverage points in the system

Prototyping this approach in Niger and South Sudan

Publishing a tested toolkit in the beginning of next year

Thank you so much!

Please contact us for any input or questions.

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