Braiding not weaving: Root Cause Analysis as a tool for systemic intervention and collaborative action

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Reminder: Polycrisis features

Cascades Institute,
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- A non-linear event, or series of events, that significantly harms the wellbeing of a large number of people in a relatively short period of time (Homer-Dixon et al. 2015)
- An extreme emergency that requires an urgent response to immediate harms to avoid even greater harms
- Refers to multiple crises that are *not* coincidental but **causally inter-related** with each other

Introduction to Root Cause Analysis

What is Root Cause Analysis (RCA)?

- A systematic problem solving technique that relies on data to identify and analyse the context and (multiple) underlying causal factors contributing to a problem
- Helps organisations understand why problems occur and develop effective solutions to prevent their recurrence.

Key Principles of RCA:

- Systemic approach that is proactive and prevention focused (resilience building)
- Iterative and dynamic for continuous improvement
- Systematic, objective, analytical data driven process, removing bias

Importance of RCA in Addressing Social Issues:

- Social issues are complex and multifaceted
- Philanthropy is often too symptom focused
- RCA helps understand the interconnected nature of social problems and identify the underlying systemic factors.

Benefits of Using RCA in Development Work:

- Promotes collaboration and a shared understanding of the problem among stakeholders
- Enables more effective resource allocation by prioritizing root causes
- Promotes development of comprehensive and effective sustainable solutions
- Encourages a proactive and preventive approach to problem-solving
- Empowers data-driven decision-making and impact measurement

Six step process:

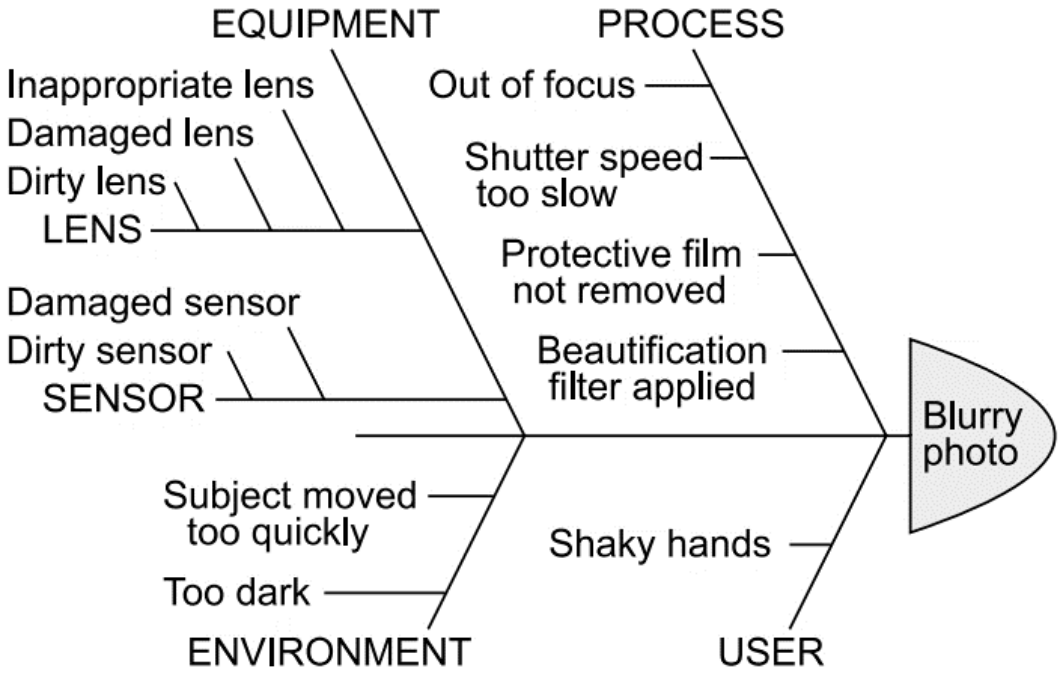
1. Problem Identification.
2. Data Collection.
3. Cause Identification.
4. Root Cause Analysis.
5. Response design and implementation.
6. Continuous Evaluation of Effectiveness & Iteration.

Ishikawa

Exploring complexity not coincidence

- The ISHIKAWA diagram (also known as a Fishbone Diagram or Cause-and-Effect Diagram)
- A tool for identifying the root causes of a problem.
- The backbone represents the problem or effect
- The bones represent categories of causes
- These can be broken down further into sub-causes

- Laddering is a technique used to explore the root causes, values, or beliefs behind a particular statement or behavior. It involves asking a series of "why" questions to delve deeper into the underlying reasoning


EQUIPMENT
PROCESS
Inappropriate lens
Damaged lens
Dirty lens
LENS
Out of focus
Shutter speed too slow
Protective film not removed
Damaged sensor
Dirty sensor
SENSOR
Beautification filter applied
Blurry photo
Subject moved too quickly
Too dark
ENVIRONMENT
Shaky hands
USER

Covid 19 causal factors

Biological Factors

- Virus Origin → Zoonotic Transmission → Animal Reservoirs and hosts
- Viral Characteristics → High Transmissibility → Rapid Spread
- Immune Response → Variations in Immunity → Vaccine Effectiveness

Environmental & Ecological Factors

- Urbanization and Population Density → Habitat destruction → Urban Crowding → Increased Transmission
- Industrial livestock farming practices → antibiotic use → overcrowding & poor sanitation → spread of zoonotic pathogens
- Environmental Conditions → Seasonal Variations → Impact on Transmission
- Deforestation & habitat destruction → loss of wildlife and biodiversity → Climate Change → Ecosystem degradation → Zoonotic Spillover → Emerging Pathogens

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Covid 19 causal factors

Healthcare Infrastructure

- Healthcare Preparedness → Limited Stockpiles → Shortages of Medical Supplies
- Testing and Surveillance → Testing Delays → Underreporting of Cases
- Healthcare Access → Disparities in Access → Inequitable Vaccine Distribution

Government and Policy factors

- Policy Implementation → Lockdown Measures → Economic Disruption
- Communication Strategies → Transparency → Trust in Government
- International Cooperation → Sharing Data → Vaccine Equity

Societal and Behavioural Factors

- Public Awareness & Compliance → Misinformation → Non-compliance with Guidelines
- Socioeconomic Impact → Economic Instability → Mental Health Challenges
- Misinformation and Stigma → Stigma Towards Infected → Hindrance to Contact Tracing
- Vaccine Development & Acceptance → efficacy, safety, distribution
- Globalisation and travel → human migration, tourism and mobility → rapid spread
- Global trade and wildlife consumption → zoonotic spillover

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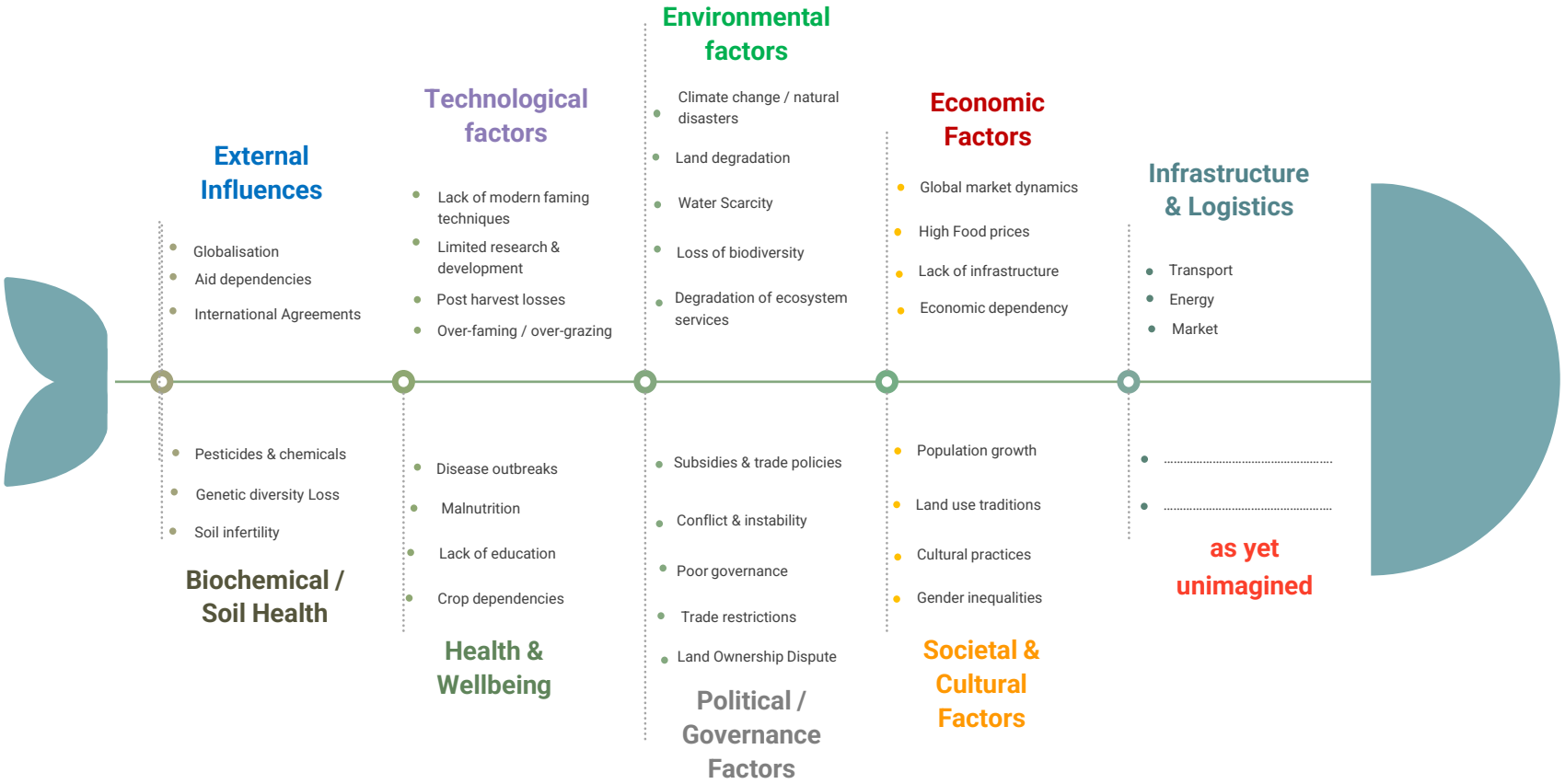
Famine / food insecurity Ishikawa



Five Whys technique

Uncovering the nub of the problem

- An iterative questioning technique that involves repeatedly asking "why" to uncover the root cause of a problem.
- For example, if the problem is "high dropout rates in a school district," the five whys might go like this:
  - Why are dropout rates high? Because students are not motivated to attend school.
  - Why are students not motivated? Because the curriculum is not engaging or relevant.
  - Why is the curriculum not engaging? Because it doesn't align with students' interests or future goals.
  - Why doesn't it align? Because there is a lack of input from students and the community in curriculum development.
  - Why is there a lack of input? Because the school district doesn't have a process for stakeholder engagement.

Objective

- To explore the multi-faceted challenges of the polycrisis and identify underlying causes so that we can better reflect on our philanthropic activities, unintentional impacts, potential for realignment and need for blurring boundaries

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Process

- Develop your Ishikawa starting with the backbone. e.g. "Climate Change”
- Brainstorm Broad Causes: Primary bones = the large categories of causal connections to the problem e.g. "Industrial Activities", "Consumer Behaviors“.
- Consider these guiding questions in your discussion:
  - What are the key symptoms or problems associated with this issue?
  - What potential causes or contributing factors can you identify?
  - What root causes emerge as the most significant or fundamental?
- Continue laddering until you’ve exhausted root causes along primary bones
- Then ladder the smaller bones: For each category, ask repeated "why" questions to uncover underlying reasons e.g. for ‘biodiversity loss’
  - Why is biodiversity loss occurring at such a high rate?
    - Agricultural demands, deforestation, pesticides
  - Why is there a surge in agricultural demands?
    - Increased global population, urbanization, economic & dietary shifts
      Use simple questions like “why?” “how?” and “so what does that mean here?” to carve a path towards understanding.
- Detail the Diagram: As you uncover deeper causes through laddering, add them as sub-branches to the respective categories

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