

# FORESIGHT TRAINING TOOLKIT

WEST AND CENTRAL AFRICA

Developing skills and capacity in applying  
foresight for climate resilient agricultural  
development in West and Central Africa



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The Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) project, led by the Alliance Bioversity International and CIAT helps deliver a climate-smart African future driven by science and innovation in agriculture. AICCRA works to make climate information services and climate-smart agriculture technologies more accessible to millions of smallholder farmers across Africa.

**About AICCRA |** Accelerating Impacts of CGIAR Climate Research in Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank. Explore AICCRA's work at [aiccra.cgiar.org](https://aiccra.cgiar.org)

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# ACKNOWLEDGEMENTS

This WCA Regional Foresight Toolkit was designed and developed as part of foresight training to support a regional Community of Practice (CoP) of foresight experts in the West and Central Africa Region. A regional training was held in Dakar, Senegal in October 2022, led by Sabrina Chesterman, Constance Neely, and facilitated by Marie Parramon Gurney, with support from Emma-Jane Fuller. Alcade Segnon and Robert Zougmore provided leadership to the partnership and co-design of the entire training series and foresight application approach. In addition, Alcade co-facilitated key foresight sessions in Dakar and lead stakeholder relationships through the entire process.

We owe much gratitude to the expertise of the CORAF team, namely Dr Niyidoba Lamien, Dr Emmanuel Njukwe, Dr. Amadou Ngaiado and Pauline Ngandoul Diouf for all their valuable discussions and insights into structuring this foresight training and the establishment of a regional CoP to support the application of foresight across the region.

The West and Central Africa Council for Agriculture Research and Development (CORAF) is a core partner of the AICCRA West Africa cluster. CORAF is an international non-profit association of national agricultural research systems from 23 West and Central African countries. Together with ASARECA (Association for strengthening agricultural research in Eastern and central Africa), CCARDESA (Centre for Coordination of Agricultural Research and Development for Southern Africa) and NASRO (North African Sub-Regional Research Organization), it forms the four sub-regional organizations that make up the Forum for Agricultural Research in Africa, FARA.

As an umbrella organization, CORAF delivers on three activity pillars related to:

- A.** Scaling technologies and innovations for impact;
- B.** Regional integrated capacity strengthening and coordination; and
- C.** Knowledge management, foresighting and anticipation, each of which can address the urgent need to improve the knowledge base and evidence-based dialogue upon which practice and policy responses to climate change are built.

CORAF's 2018-2027 Strategic Plan particularly emphasizes the role of foresight analysis – using historical data and modelling future scenarios to draw conclusions about actions to be taken in the present - to build consensus and inform decision-making on research priorities.

A huge thanks to the regional foresight Community of Practice for all their hard work and support throughout the training (10 – 14 October 2022), their co-facilitation support during the application week (17-21 October 2022), and their eagerness to be foresight ambassadors in the region. Ayodeji Rauf, Dr Hadja Oumou Sanon, Dr Adolphe Mahyao Germain, Edward H. Decker, Dr. Ihegwuagu Nnemeka Edith, Dr Wouedjie, Thegue Alice-Norra, Dr. Nathalie Kpera, Dr. Djondang Koye, Aminata Bâ Dia, Dr Amadou Abdoulaye M. Bahari, and Nestor Ngouambe.



**AICCRA**

Accelerating the Impact of CGIAR  
Climate Research for Africa



The Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) project, led by the Alliance Bioversity International and CIAT helps deliver a climate-smart African future driven by science and innovation in agriculture. AICCRA works to make climate information services and climate-smart agriculture technologies more accessible to millions of smallholder farmers across Africa. With better access to technology and advisory services—linked to information about effective response measures—farmers can better anticipate climate-related shocks to take preventative action that helps their communities safeguard livelihoods and the environment. AICCRA is being implemented across scales (continental, regional and country levels) in Africa.

The West Africa regional level implementation led by AICCRA West Africa Cluster (AICCRA WA) collaborates with the West and Central Africa Council for Agriculture Research and Development (CORAF), an association of national agricultural research systems from 23 West and Central African countries, and AGRHYMET Regional Centre, a specialized institute of the Permanent Interstate Committee for Drought Control in the Sahel (CILSS), to ensure that effective large-scale intra-regional and south-south adoption within various value chains are taking place through innovative delivery models for climate services and CSA from West Africa. AICCRA aims to increase access to climate information services and climate-smart agriculture technologies in Africa.

[aiccra.cgiar.org](http://aiccra.cgiar.org)



CORAF is an international non-profit association of national agricultural research systems from 23 West and Central African countries. Together with ASARECA (Association for strengthening agricultural research in Eastern and central Africa), CCARDESA (Centre for Coordination of Agricultural Research and Development for Southern Africa) and NASRO (North African Sub-Regional Research Organization), it forms the four sub-regional organizations that make up the Forum for Agricultural Research in Africa, FARA.

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# ACRONYMS AND ABBREVIATIONS

<b>AICCRA</b>	Accelerating the Impact of CGIAR Climate Research for Africa
<b>AU</b>	African Union
<b>CAADP</b>	Africa Agriculture Development Programme
<b>CEMAC</b>	Economic and Monetary Community of Central Africa
<b>CILSS</b>	Permanent Interstate Committee for Drought Control in the Sahel
<b>CoP</b>	Community of Practice
<b>CORAF</b>	West and Central Africa Council for Agriculture Research and Development
<b>CSA</b>	Climate Smart Agriculture
<b>ECCAS</b>	Economic Community of Central African States
<b>ECOWAS</b>	Economic Community of West African States
<b>EWS</b>	Early Warning Systems
<b>FAO</b>	Food and Agricultural Organisation
<b>FAW</b>	Fall Army Worm
<b>IDRC</b>	International Development Research Centre
<b>IPPC</b>	International Plant Protection Convention
<b>LECRDS</b>	Low Emission Climate-Resilient Development
<b>MSP</b>	Multi-Stakeholder Partnerships
<b>NARIs</b>	National Agricultural Research Institutes
<b>NARS</b>	National Agricultural Research Systems
<b>RVF</b>	Rift Valley Fever
<b>SHARED</b>	Stakeholder Approach to Risk Informed and Evidence-based Decision-making
<b>WCA</b>	West and Central Africa
<b>WOAH</b>	World Organisation for Animal Health
<b>WHO</b>	World Health Organisation



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## THE AIM OF THE REGIONAL FORESIGHT TRAINING TOOLKIT

This regional foresight training toolkit aims to support a regional foresight community of practice to practically apply the range of foresight tools and methods for innovative strategic planning and policy formulation in their respective institutions. The training approach is mapped out on the following page.

# FORESIGHT COMMUNITY OF PRACTICE TRAINING APPROACH



# FORESIGHT KEY FRAMEWORK STAGES



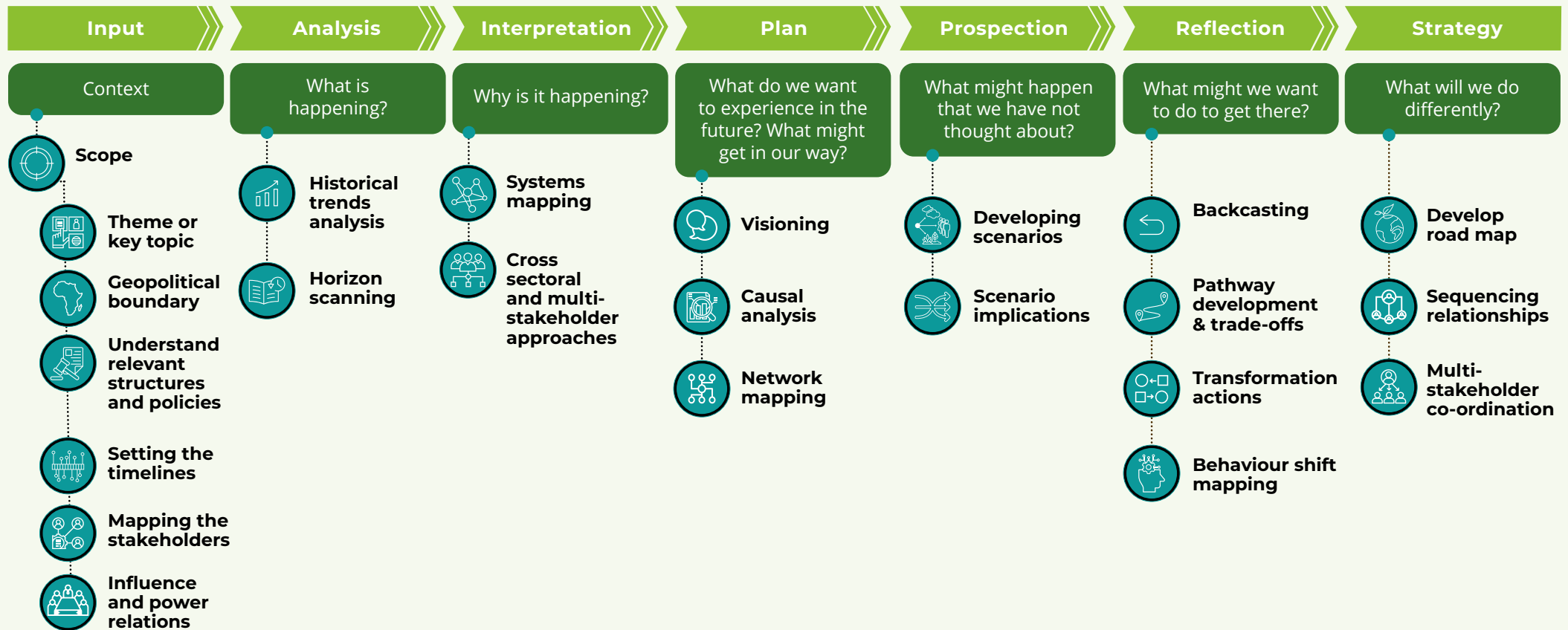
DATA, EVIDENCE, KNOWLEDGE AND CREATIVITY



STAKEHOLDER ENGAGEMENT AND PARTICIPATION

## SITUATIONAL ANALYSIS

## LONG TERM FUTURE PLANNING

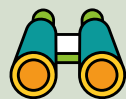




# STRUCTURE OF THE TOOLKIT

The toolkit comprises six modules structured to both show the methodology but also to be applied, by building a clear case study and examples of climate-resilient development in agricultural systems with relevance to the WCA region. This allows the user to gain insights into

both the foresight tools, methods, and key steps but also to embed case studies and practical examples to better apply those methods into their own national and institutional contexts.



An **introduction to the foresight method or approach** in question;



A breakdown of the **key steps of the method** or tool;



An explanation of how and when to **apply the different steps of the method or tool**;



**Background on the content**; and



**Application of the method in the context of developing a regional preparedness and response strategy plan to pest and disease outbreaks in the region.**

## MODULE 01

### MODULE 01

#### INTRODUCTION TO FORESIGHT

Introduction to applying foresight approaches for climate-resilient agricultural development.

## MODULE 02

### MODULE 02

#### UNDERSTANDING TRENDS AND MULTI-SECTORAL AND SYSTEMS LINKAGES

Understanding regional trends, multi-sectoral and systems linkages and climate risks in the region.

## MODULE 03

### MODULE 03

#### VISIONING AND CAUSAL ANALYSIS

Applying foresight tools and methods: visioning, causal analysis and integrating climate resilience into future planning.

## MODULE 04

### MODULE 04

#### BUILDING SCENARIOS

Applying foresight tools and methods: introducing scenarios and building multiple scenarios to consider in future planning.

## MODULE 05

### MODULE 05

#### SCENARIO IMPLICATIONS AND TRANSFORMATIVE CHANGE

Applying foresight tools and methods: using scenarios to consider uncertainties and create more robust and transformative climate-resilient policies and plans.

## MODULE 06







### MODULE 06







#### REFLECTION AND STRATEGY








Review of key foresight methods and tools and tailoring practical action to agriculture and climate change future planning and implementation in the West and Central Africa (WCA) region.







# GLOSSARY OF KEY TERMS








## FORESIGHT







Term	Description
<b>Backcasting</b> 	The process of working backwards from the definition of a possible future to determine what needs to happen to make the future unfold and connect to the present.
<b>Barrier</b> 	Identified obstacle that could stop the achievement of an activity.
<b>Black Swan</b> 	An event that could absolutely not be predicted.
<b>Brainstorming</b> 	A method of obtaining ideas without judgement or filtering. It involves encouraging wild and unconstrained suggestions and listing ideas as they emerge.
<b>Causality</b> 	A logical link between events, where a cause precedes an effect and altering the cause alters the effect.
<b>Complexity</b> 	Complex systems are non-linear and diverse networks made up of multiple interconnected elements. Cause and effect relationships within the system are not easily discernible or predictable. Historical extrapolation is not possible for predicting emergence (new patterns and behaviours) in complex systems.

Term	Description
<b>Critical Uncertainties</b> 	Are drivers that are both highly impactful and highly uncertain.
<b>Cross-cutting Issues</b> 	Issues or challenges that affect more than a single interest area, institution, or stakeholder, and that need to be addressed from all points of view.
<b>Drivers</b> 	Are factors, issues or trends that cause change thereby affecting or shaping the future.
<b>Driving Force</b> 	A cluster of individual trends on the same general subject moving trends in certain directions, they are broad in scope and long term in nature (for example, climate change or globalisation).
<b>Evidence</b> 	The integration of raw data constituting numbers, words, images, and insights emerging from diverse knowledge sources.
<b>External Driver</b> 	External force of change, for example political or market drivers.






Term	Description
<b>Feasible</b> 	Possible and practical.
<b>Forecast</b> 	An estimate or best guess of what might happen in the future i.e. not a definitive prediction.
<b>Foresight</b> 	Structured tools, methods and thinking styles to enable the capacity to consider multiple futures and plan for them.
<b>Foresight Organising Group</b> 	A small core group that builds the foresight plan.
<b>Foresight Participating Group</b> 	A broad mix of identified key stakeholders that need to be involved.
<b>Futuring</b> 	The act, art, or science of identifying and evaluating possible future events.
<b>Futures thinking</b> 	Describes the practice of thinking about the future in a structured way, and the methods and approaches that are used to do so.







Term	Description
<b>Grey Rhino</b> 	These are the large, obvious dangers that will sooner or later emerge but whose exact timing is unknown.
<b>Impact</b> 	Refers to the potential scale of impact of a driver on a scenario theme.
<b>Internal Driver</b> 	Internal force of change for example, social drivers within a farm or community directing the decision making of a farmer.
<b>Mega-trend</b> 	A trend that is apparent at a large or global scale e.g. growing youth population across the African continent.
<b>Mind Mapping</b> 	Allows a group's ideas to be charted in logical groupings fairly quickly, even when ideas are given in a non-sequential manner. This technique allows efficient brainstorming for ideas and at the same time creates a skeletal framework for later categorisation of the information generated.
<b>Modelling and Simulation</b> 	The process of creating and experimenting with a computerised mathematical model imitating the behaviour of a real-world process or system over time. Simulation is used to describe and analyse the behaviour of a system when asking 'what-if' questions about the real system and aid in the design of real systems.

Term	Description
<b>Not Predictive</b> 	Participatory with multiple viewpoints, bringing in quantitative and qualitative evidence but not predictive.
<b>Pathway</b> 	A trajectory in time, reflecting a sequence of actions and consequences against a background of separate developments, leading to a specific future situation.
<b>Plausible</b> 	It is reasonable to assume the scenario could happen. Plausibility does not mean that a future situation will happen.
<b>Predictability</b> 	The degree of confidence in a forecasting system based either on law derived from observations and experience, or on scientific reasoning and structural modelling.
<b>Projecting</b> 	A quantitative technique that can be used in the analysis phase of the foresight process. Projecting or time series analysis are used when several years of data are available, and trends are both clear and relatively stable.
<b>Projection</b> 	An expected value of one or more indicators at particular points in the future, based on the understanding of selected initial conditions and drivers.
<b>Resilience</b> 	A system's ability to cope with and recover from shocks or disruptions, either by returning to the status quo or by transforming itself to adapt to the new reality.





Term	Description
<b>Scenarios</b> 	Are storylines/narratives, answering 'what if' questions that describe multiple alternative futures spanning a key set of critical uncertainties. Scenarios identify future drivers of change and then plot out plausible directions that they may take.
<b>Scenario Development</b> 	<p>An approach to understanding highly impactful and highly uncertain drivers and to describe possible future states.</p> <p>Although they address uncertainty, scenarios are not predictions or forecasts - they are not 'true' or correct/wrong - only plausible.</p>
<b>Scenario planning</b> 	Is a technique of strategic planning that relies on tools and technologies for managing the uncertainties of the future
<b>Social Network Mapping</b> 	A tool to identify the importance and influence of stakeholders as well as how they exchange information or are connected.
<b>Strategic foresight</b> 	The combination of foresight and strategic management
<b>Time Frame</b> 	The complete period (past-to-future) considered in a foresight exercise.








Term	Description
<b>Transformation</b> 	An agriculture and food systems transformation is a significant redistribution - by at least a third - of land, labour and capital, and/ or outputs, and outcomes (e.g. types and amounts of production and consumption of goods and services) within a time frame of a decade.
<b>Trend</b> 	A general tendency or direction of a movement or change over time e.g. increasing erratic seasonal rainfall patterns.
<b>Trend Impact Analysis</b> 	Collecting information and attempting to spot a pattern, or trend, and assess its influence from the information.
<b>Uncertainty</b> 	Refers to how much or how clear we are on how a driver will emerge or play out in the future. High uncertainty does not mean 'high improbability', high uncertainty can mean having little knowledge of how something may pan out.
<b>Underlying Cause</b> 	Unpacking why an obstacle is in place.






Term	Description
<b>Unknown Unknowns</b> 	Issues and situations in organisations that have yet to surface and which are blind spots for planners who are unaware that they do not know about them.
<b>Viable</b> 	Able to be done or could occur.
<b>Vision</b> 	A compelling image of a (usually preferred) future.
<b>Visioning</b> 	A well-known prospective technique with a highly participatory approach.
<b>Wicked Problem</b> 	A problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognise.
<b>Wild Card</b> 	A low-probability but high-impact event that seems too incredible or unlikely to happen.







# CLIMATE RESILIENCE

Term	Description
<b>Adaptive Capacity</b> 	The ability of systems, institutions, humans, and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences.
<b>Climate Change</b> 	Climate change is a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer.
<b>Climate Resilience</b> 	The ability of a system to 'bounce back' from the impacts of climate-related stresses or shocks. It is the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.
<b>Exposure</b> 	Refers to the inventory of elements in an area in which hazard events may occur.

Term	Description
<b>Hazard</b> 	A possible, future occurrence of natural or human induced physical events that may have adverse effects on vulnerable and exposed elements.
<b>Risk</b> 	Intersection of hazards, exposure, and vulnerability.
<b>Sensitivity</b> 	The degree to which a system is affected, either adversely or beneficially, by climate variability or change.
<b>Social Vulnerability</b> 	Inability of people, organisations, and societies to withstand adverse impacts from multiple stressors to which they are exposed.
<b>Vulnerability</b> 	The propensity or predisposition of a system to be adversely affected by an event. Vulnerability is a function of a system's sensitivity, and its adaptive capacity.

# AGRICULTURAL SYSTEMS

Term	Description
<b>Agriculture</b> 	Is the science, art, or practice of cultivating soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products.
<b>Agricultural Value Chain</b> 	Includes the people and activities that bring a basic agricultural product such as maize to the consumer. The activities include obtaining inputs and production in the field right through to storage, processing, packaging, and distribution.
<b>Biological Diversity</b> 	The variability among living organisms from all sources, including terrestrial, marine, and aquatic ecosystems.
<b>Cross Sectoral Coordination</b> 	The engagement, management, planning and implementation, of activities conducted across different thematic sectors to deliver development outcomes (e.g. food security, nutrition, sustainable landscapes, and agriculture).
<b>Ecosystem Services</b> 	These include provisioning services, such as the production of food (e.g. fruit for humans or grazing for cattle) and water; regulating, such as the control of flooding and disease; supporting, such as nutrient cycles and oxygen production; and cultural, such as spiritual and recreational benefits.

Term	Description
<b>Elements</b> 	The different, discrete elements within a system (e.g. farms, organisations, inputs, and soil).
<b>Interconnections</b> 	The relationships that connect the elements (e.g. rules, ideas, funding, or service relationships, among others).
<b>Land Degradation</b> 	A process in which the value of the biophysical environment is affected by a combination of human land-use activities. It is viewed as any change or disturbance to the land perceived to be undesirable.
<b>Multi-Stakeholder Collaboration</b> 	Consists of a mix of representatives or stakeholders from public, civil, and private domains of society.
<b>Post-Harvest Loss</b> 	Is the loss in quantity and quality of agricultural produce between harvest and consumption. It includes on-farm losses e.g. damage to grain by pests, as well as losses along the value chain during transportation, storage, and processing.
<b>Pre-production</b> 	This stage of the agricultural process is prior to production and may involve land preparation and the sourcing and purchasing of inputs such as seed and fertiliser.








Term	Description
<b>Productive Inputs</b> 	These are used to increase yields and range from improved seeds, genetics, fertilisers and crop protection chemicals to machinery, irrigation technology and knowledge.
<b>System</b> 	An interconnected set of elements that is coherently organised in a way that achieves something (function and purpose). For example, the purpose of an agricultural system could be to produce dairy products and the system could consist of interconnected elements such as the farmer, employees, cattle, machinery, feed, water, and energy.
<b>Systems Thinking</b> 	A mindset, tool, and process that is reserved for complex problems.
<b>Systems View</b> 	Understands life as networks of relationships.
<b>Transboundary Animal Disease</b> 	Epidemic disease which is highly contagious or transmissible and has the potential for very rapid spread, irrespective of national borders, causing serious socio-economic and potentially public health consequences.



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## RESILIENCE

is the ability to prevent disasters and crises as well as to anticipate, absorb, accommodate or recover from them in a timely, efficient and sustainable manner.



## PREPAREDNESS

refers to a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. Preparedness is associated with disaster risk reduction.



## EARLY WARNING

- Early warning systems are designed to enhance detection of pests and diseases to prevent introduction and spread.

Early warning systems provide up-to-date, accurate information on emerging crop and livestock pests that may be a threat to agriculture or natural resources if they become established in new countries.



## RESPONSE

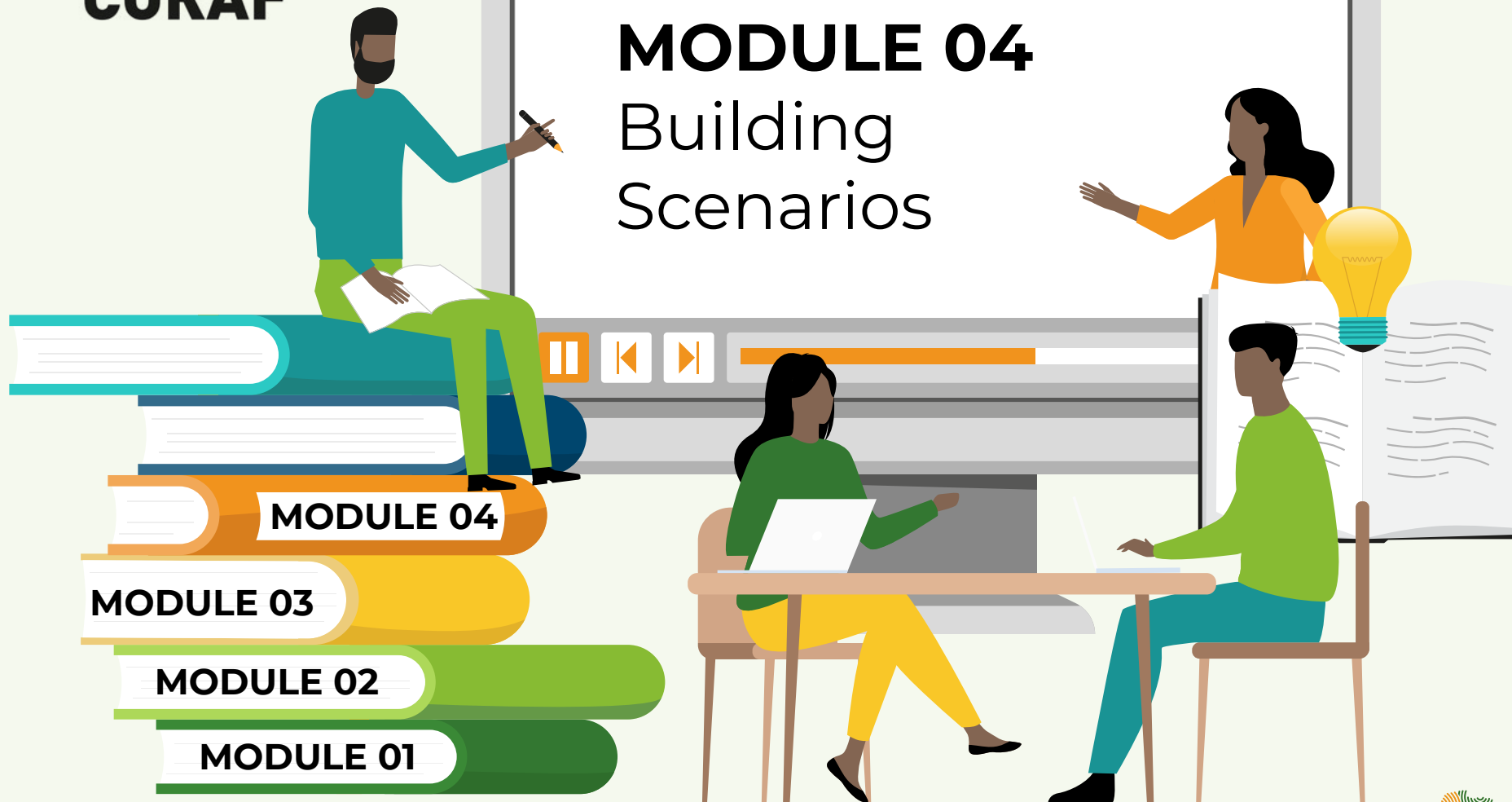
refers to a series of coordinated activities involving one or more organizations, in order to respond to pests and disease concern/outbreak and bring the situation under control.

The development of decision support systems requires an understanding of what information is needed, when it is needed, and at what resolution and accuracy.



# MODULE 04

## Building Scenarios



MODULE 04

MODULE 03

MODULE 02

MODULE 01





# OVERVIEW OF MODULE FOUR



**Introduce foresight**



**Establish learning goals**



**Scope for a foresight exercise**



**Trends Analysis**



**Learning reflections**



**Practical exercise**



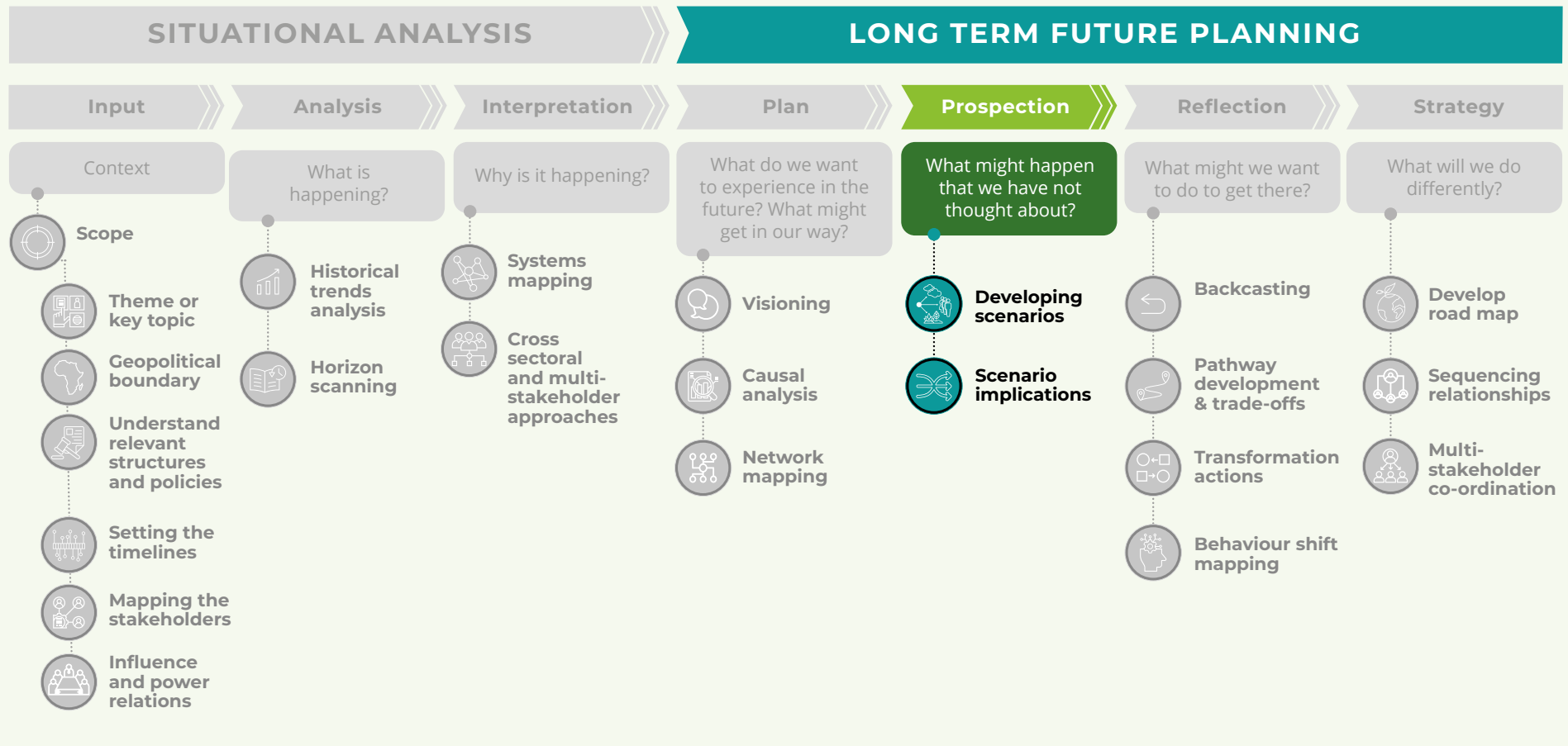
**Horizon scanning**



**Practical exercise**

# FORESIGHT KEY FRAMEWORK STAGES

-  DATA, EVIDENCE, KNOWLEDGE AND CREATIVITY
-  STAKEHOLDER ENGAGEMENT AND PARTICIPATION



## KEY TERMS



**Scenarios** - Storylines / narratives, answering 'what if' questions that describe **multiple alternative futures** spanning a key set of critical uncertainties. Scenarios identify future drivers of change and then plot out **plausible directions** that they may take.



## UNCERTAINTY IN LONG TERM PLANNING

Developing long term planning is challenging due to:

1. The time frame that extends across multiple decades; and
2. The need to deal with complex socioeconomic and biophysical systems.

Long term planning is subject to great uncertainty, such as:

1. Future climate impacts;
2. Technological innovation and deployment;
3. Policy development and implementation
4. Availability of large-scale solutions; and
5. Reliability of current data, models and skills to interpret evidence .



## CORE GUIDING QUESTIONS OF FORESIGHT

**What seems to be happening?**

**What's really happening?**

**What do we want to happen?**

**What might happen?**

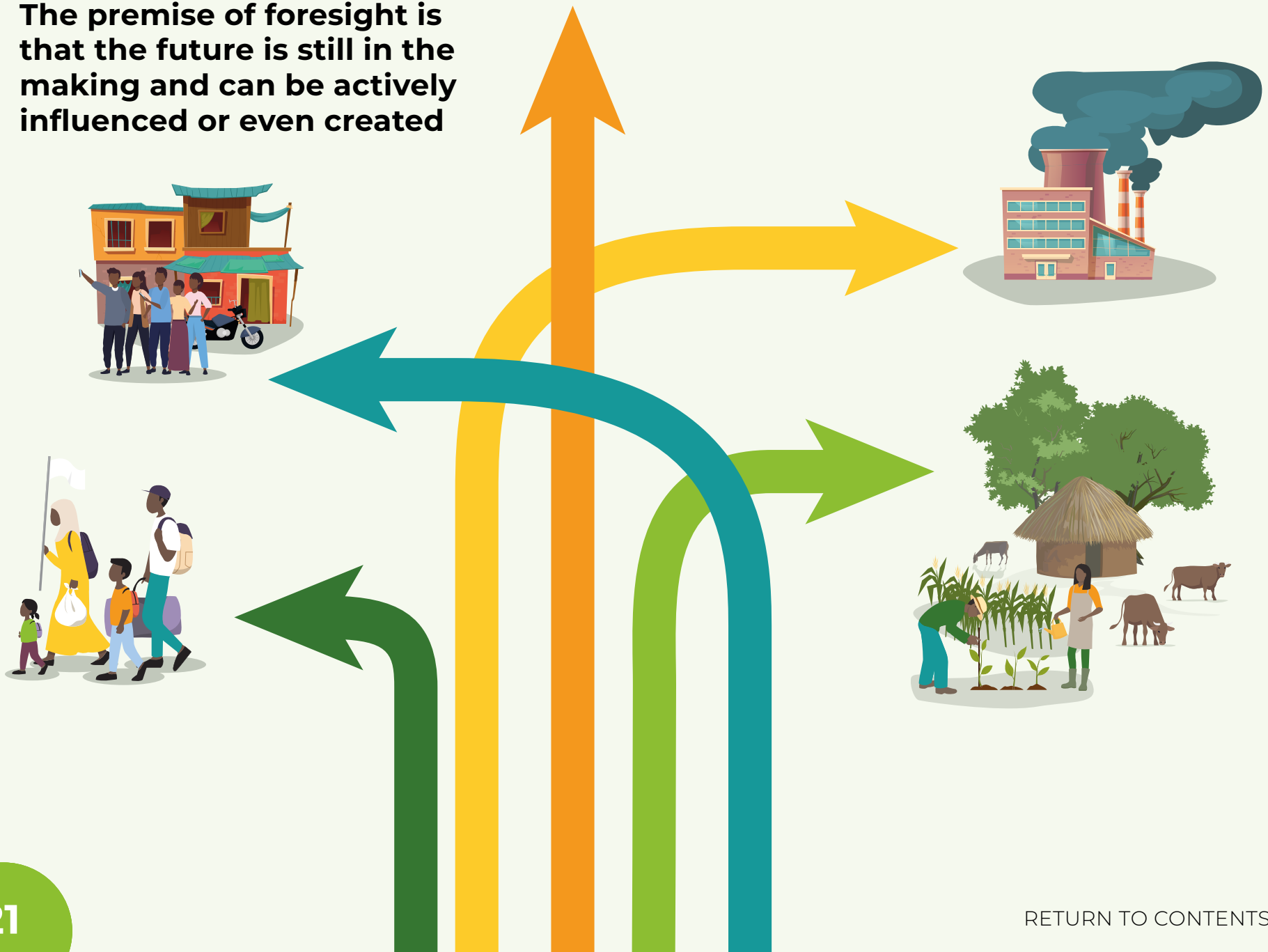
**What do we need to do?**

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**The premise of foresight is that the future is still in the making and can be actively influenced or even created**



## PROSPECTION



Developing scenarios



Scenario implications

# SCENARIOS

## What is scenario planning?

- Scenario planning involves telling a story with many possible endings.
- It allows decision-makers to identify a range of possible outcomes and impacts (what could happen?), evaluate responses and plan for the future.
- This enables a level of control in an uncertain world.
- By visualizing potential risks and opportunities, decision-makers can be proactive.

## Why is scenario planning important?

- By visualizing potential risks and opportunities, decision-makers can be proactive.
- Because a potential outcome has already been thought through and actions documented, there is no need to scramble in time of crisis.

## Key Steps



Scenarios are used as a method to **think about possible future states** and how uncertainties might play out.



Answering **'what if'** questions that describe multiple alternative futures spanning a key set of critical uncertainties.



A group of scenarios are alternative dynamic stories that **capture key ingredients of uncertainties of the future**. They reveal the implications of current trajectories, thus illuminating options for action.

## SCENARIOS MUST BE....

- **Plausible** - it is reasonable to assume the scenario could happen. Plausibility does not mean that a future situation will happen.
- **Viable** - able to be done or could occur.
- **Feasible** - possible and practical.
- **Not predictive** - participatory with multiple viewpoints, bringing in quantitative and qualitative evidence but not predictive.



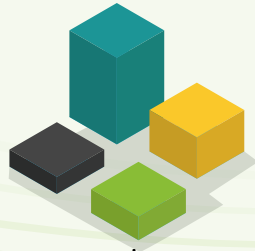
# BUILDING SCENARIO PROCESS

Define focal issue and relevant time frame



1

Group drivers into categories



3

Select high impact & high uncertainty drivers



5

Build scenario storylines



7

Identify and brainstorm drivers of change



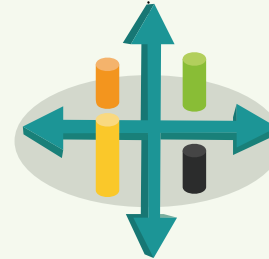
2

Identify high impact & high uncertainty drivers



4

Set up scenario axis



6





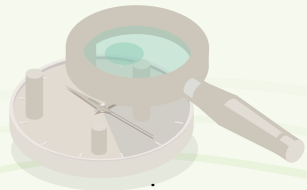
# BUILDING SCENARIO PROCESS

Define focal issue and relevant time frame

Group drivers into categories

Select high impact & high uncertainty drivers

Build scenario storylines



1

2

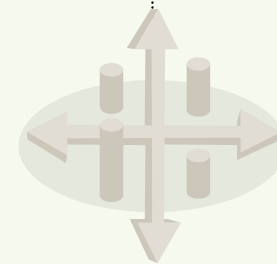
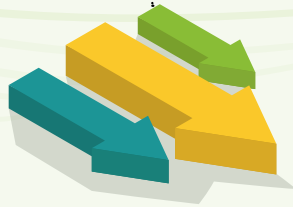
3

4

5

6

7



Identify and brainstorm drivers of change

Identify high impact & high uncertainty drivers

Set up scenario axis



**Drivers** - are factors, issues or trends that cause change thereby affecting or shaping the future.



**Internal driver** - internal force of change for example social drivers within a farm or community and directing decision making of a farmer.



**External driver** - external force of change, for example political or market drivers.



## BRAINSTORMING AND CATEGORIZING DRIVERS





# CATEGORIES FOR ORGANISING DRIVERS



**Socio-cultural**

**Natural Resource Management (NRM) and Environment**



**Governance / Political / Institutional**



**Agriculture Productivity**

**Economic**







# BRAINSTORMING AND CATEGORIZING DRIVERS







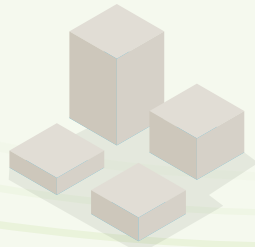
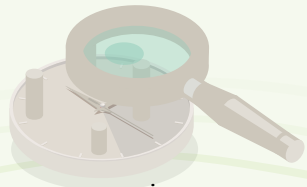
# BUILDING SCENARIO PROCESS

Define focal issue and relevant time frame

Group drivers into categories

Select high impact & high uncertainty drivers

Build scenario storylines



1

2

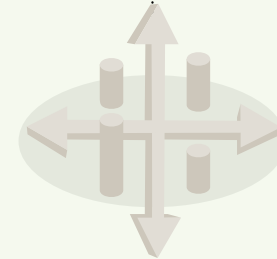
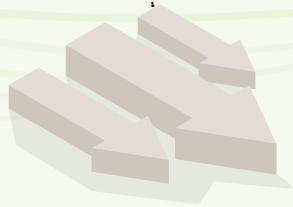
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Identify and brainstorm drivers of change

Identify high impact & high uncertainty drivers

Set up scenario axis



**Impact** - refers to the potential scale of impacts of the driver on your scenario theme.



**Uncertainty** - in scenarios refers to how much or how clear we are on how a driver will emerge or play out in the future. High uncertainty does not mean 'high improbability', high uncertainty can mean having little knowledge of how something may pan out.



**Critical uncertainties** - are drivers that are both high impact and highly uncertain.

**QUESTION?**

What **driver** do you think will be highly **impactful** in your country in the next 10 years?

## RANKING DRIVERS IN TERMS OF:



**Impact** - how impactful they are (Low, High).



**Uncertainty** - how well we know how they will play out (Low, High).

### Let's take the drivers of change in food systems

<b>Driver</b>	<b>Impact</b> - how impactful they are (Low, High)	<b>Uncertainty</b> - how well we know how they will play out (Low, High)
<b>Expanding areas for major commodities</b>	<b>HIGH</b>	<b>LOW / MEDIUM</b>
<b>Population growth</b>	<b>HIGH</b>	<b>LOW</b>
<b>Open borders</b>	<b>HIGH</b>	<b>HIGH</b>
<b>Export regulations</b>	<b>HIGH</b>	<b>HIGH</b>
<b>Climate Risk to agriculture</b>	<b>HIGH</b>	<b>HIGH</b>



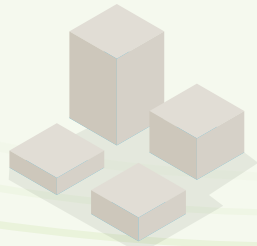
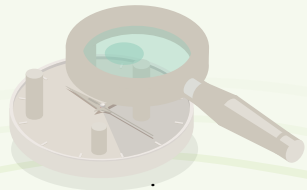
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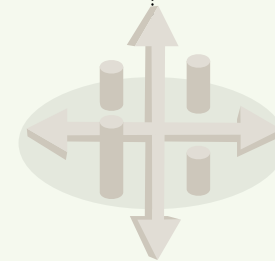
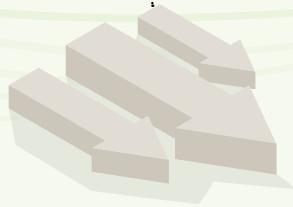
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Identify and brainstorm drivers of change

Identify high impact & high uncertainty drivers

Set up scenario axis

Drivers		Impact (L,H)	Uncertainty (L,H)
Economic	Changes in levels of youth unemployment	High	High
Governance Political Institutional	Level of SADC regional view and integration	High	High
Natural Resources and Environment	Trans-boundary disease	High	High
	Climate risk	High	High

Photo: ©Adobe Stock





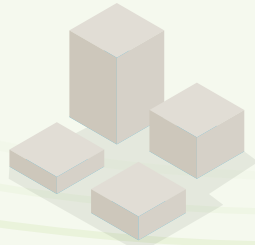
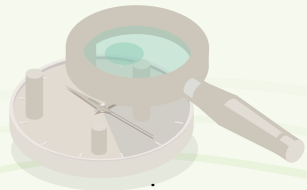
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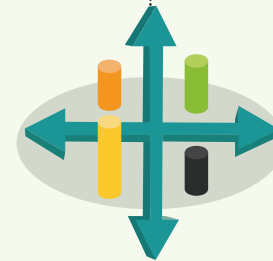
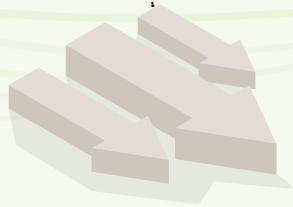
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Identify and brainstorm drivers of change

Identify high impact & high uncertainty drivers

Set up scenario axis

## SCENARIO 1



National border closing  
to regional integration



Low youth unemployment to  
high youth unemployment



Regional  
integration /  
trade

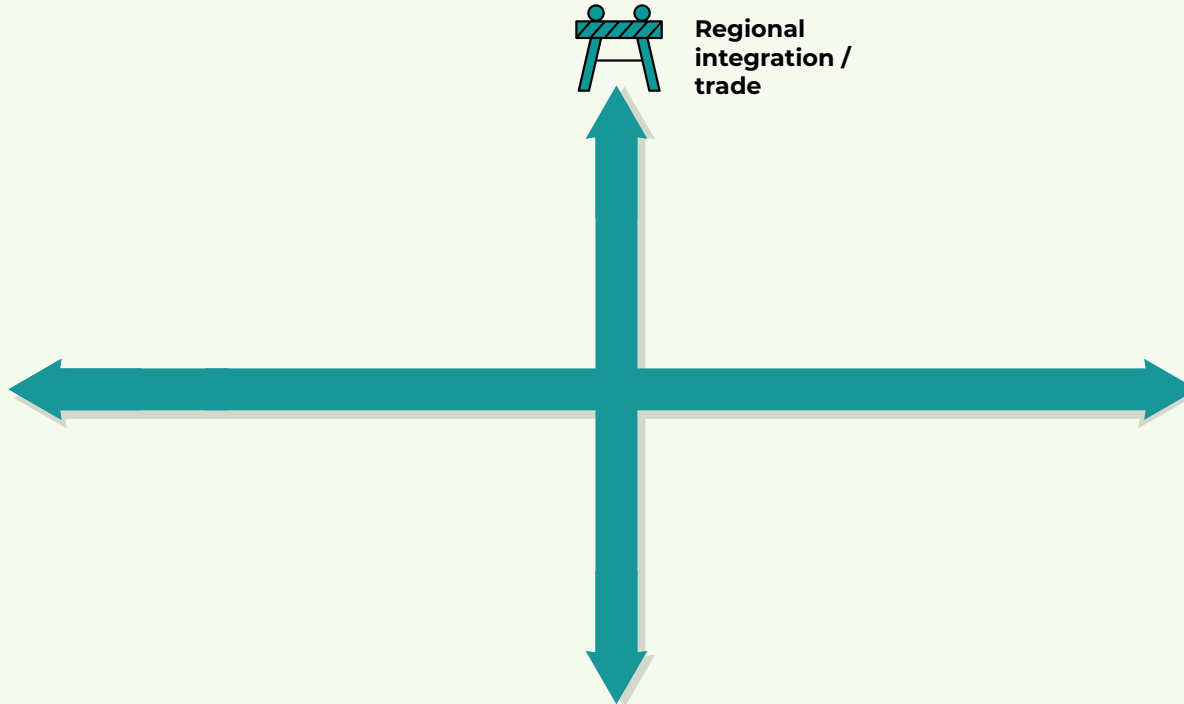


National  
borders  
closing

LOW youth  
unemployment



HIGH youth  
unemployment





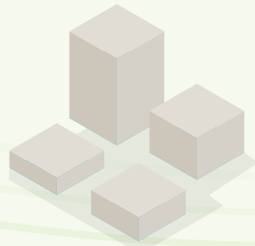
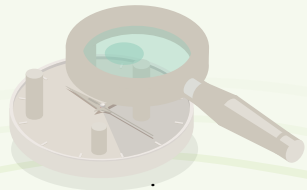
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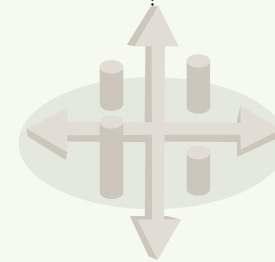
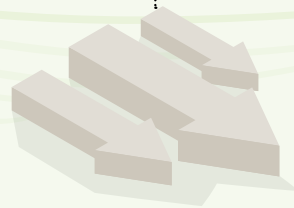
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Identify and brainstorm drivers of change

Identify high impact & high uncertainty drivers

Set up scenario axis

# DIMENSIONS FOR BUILDING STORYLINES



**Socio-cultural,  
education,  
gender, youth**



**Political /  
Institutional**



**Environmental  
state,  
ecosystem  
function,  
forest cover,  
soil health**



**Agriculture  
productivity:  
livestock,  
crops and  
aquaculture**



**Economic,  
investment  
and trade**



## BUILDING STORYLINES

Let's assume we are trying to write a storyline that describes our **future** climate resilient agriculture system in the region.

Consider the quadrant where we have:

**HIGH YOUTH UNEMPLOYMENT**

**HIGH NATIONALISM (NOT WELL  
REGIONALLY INTEGRATED)**

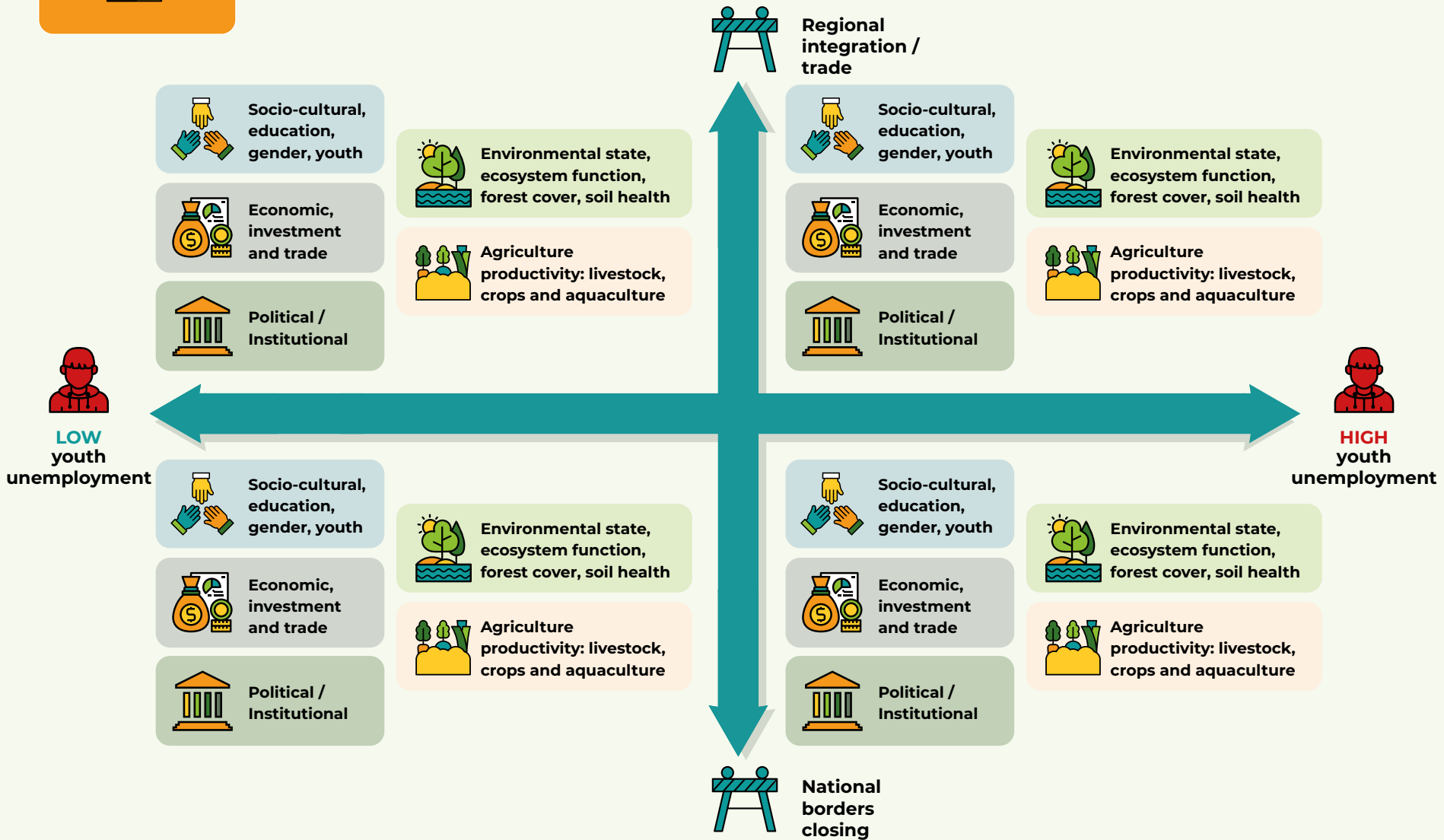


### QUESTION?

Can you describe in a sentence what the **economy** might look in the future under this scenario?



# SCENARIO 1



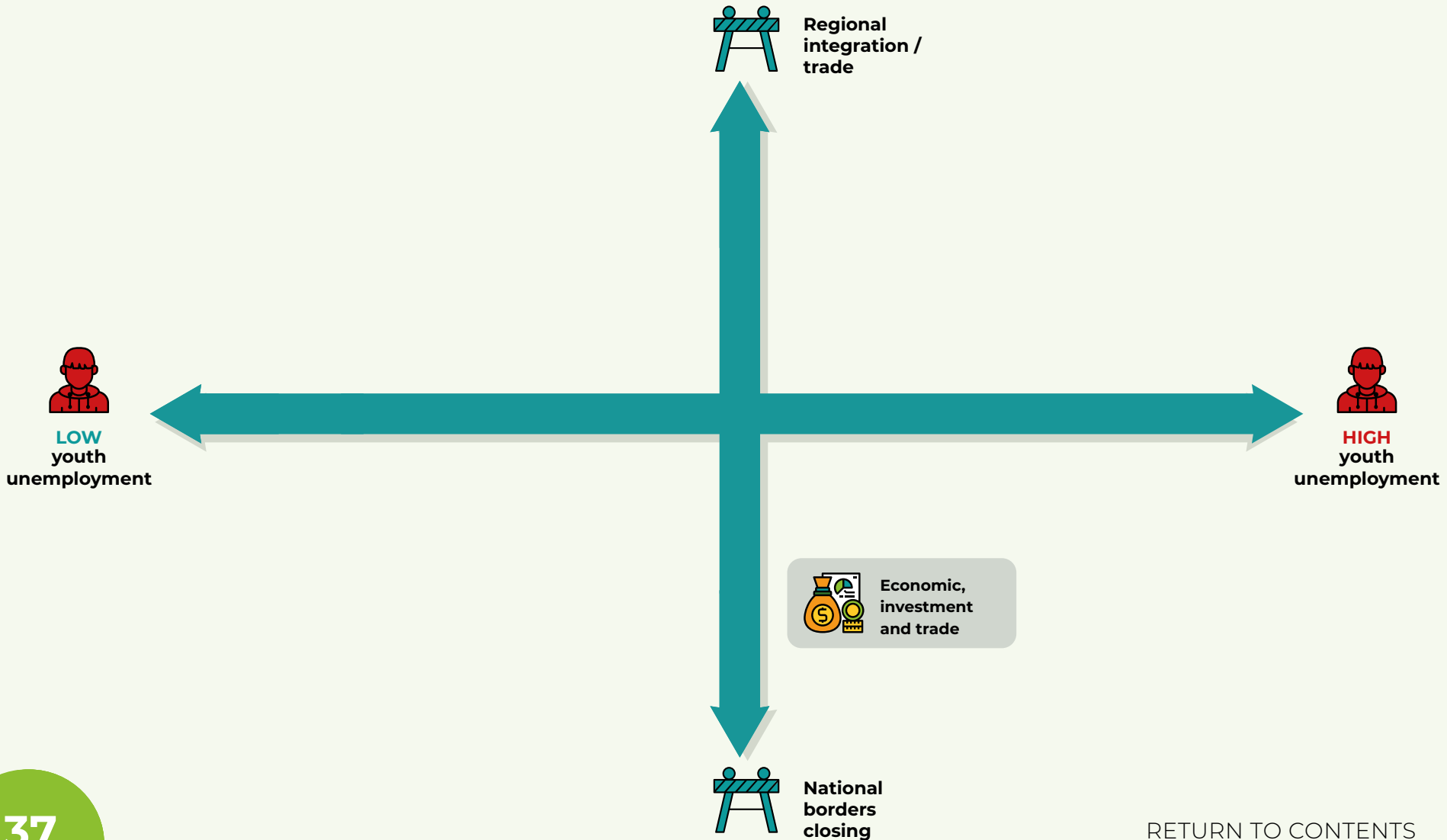
## SCENARIO 1



## REFLECTIONS AND GUIDING QUESTIONS

What are some of the biggest challenges in using the foresight process to shape policies?

- It is important to dedicate some time to explain that you are exploring possible futures, and not only the futures you want.
- It is important to embed the scenarios exercise in the broader policies process and include key decision makers to make sure.
- Recommendations are really taken forward.



## SCENARIO 1



## REFLECTIONS AND GUIDING QUESTIONS

If you want to review an existing policy do you look at the policy first before developing the scenarios or develop

The scenarios then review the policy?

- Both options are possible. However, if you work with a draft version of the policy first the impact of the scenarios.
- Work might be more concrete.



**HIGH**  
youth  
unemployment

### Socio-cultural, education, gender, youth



Potential loss of nutritional diversity, increased crime, reduced investment in education and youth, increased "competition" across society.

### Political / Institutional



Increased nationalism, reduced types of institutions addressing food system, competition for leadership.

### Economic, investment and trade



Dramatic reduction of food and agricultural inputs being imported, reduced forex.

### Environmental state, ecosystem function, forest cover, soil health



Unemployment leads to feed families, increases in deforestation, degradation of resources, increased hunting for bushmeat, potential conflict over transboundary waters?

### Agriculture productivity: livestock, crops and aquaculture



Need for productivity increases but based on inputs within national border.



**National  
borders  
closing**

## SCENARIO 1

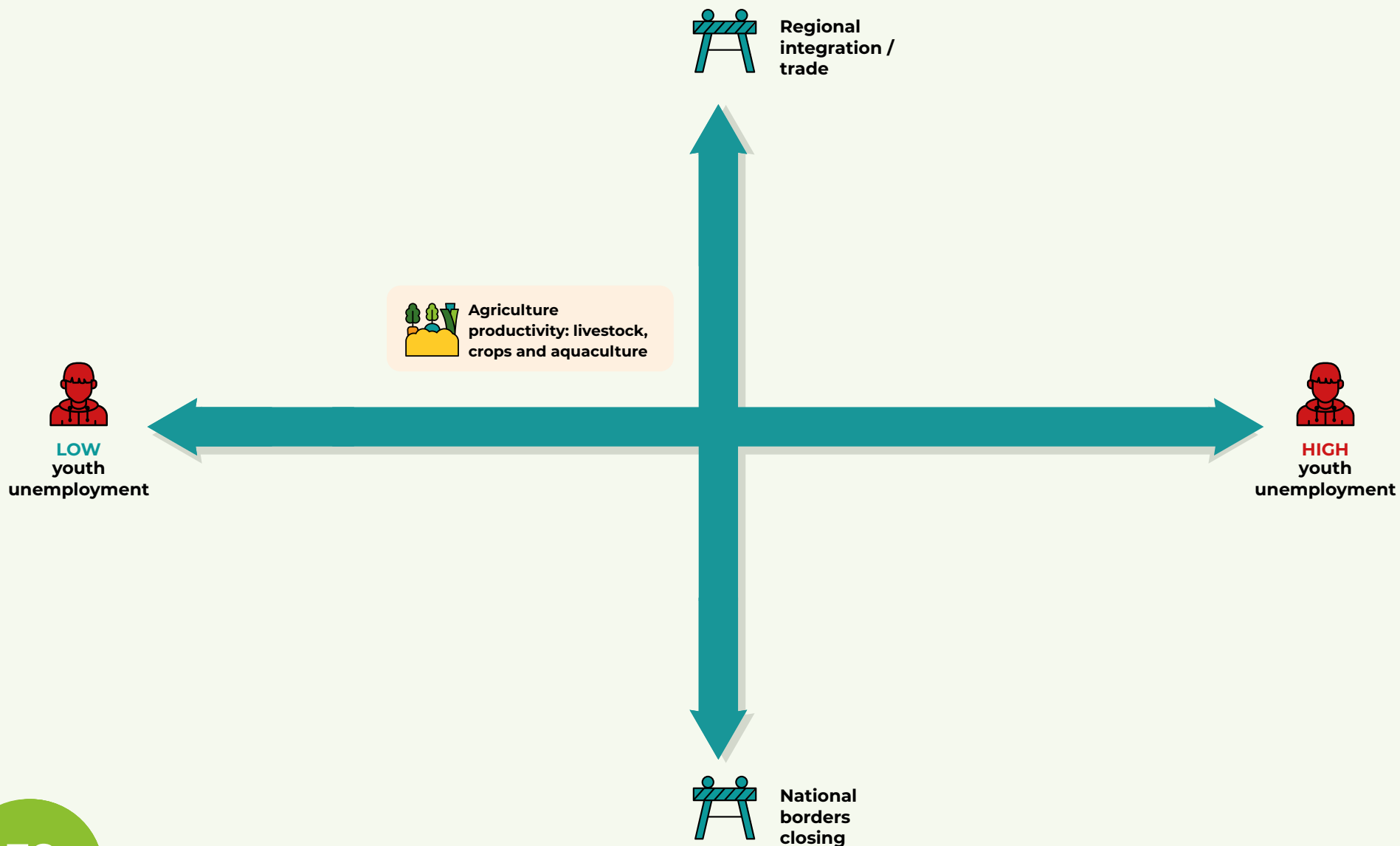


## BUILDING STORYLINES

Consider the quadrant where you have:

**LOW YOUTH UNEMPLOYMENT**

**HIGH REGIONAL INTEGRATION**





# SCENARIO 1



**Agriculture productivity: livestock, crops and aquaculture**  
Pastoralists, small-scale farmers and fishers may be marginalized in favor of large-scale production systems. Integrated farming systems are not promoted.



Regional integration / trade



National borders closing



LOW youth unemployment



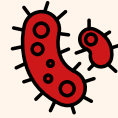
HIGH youth unemployment



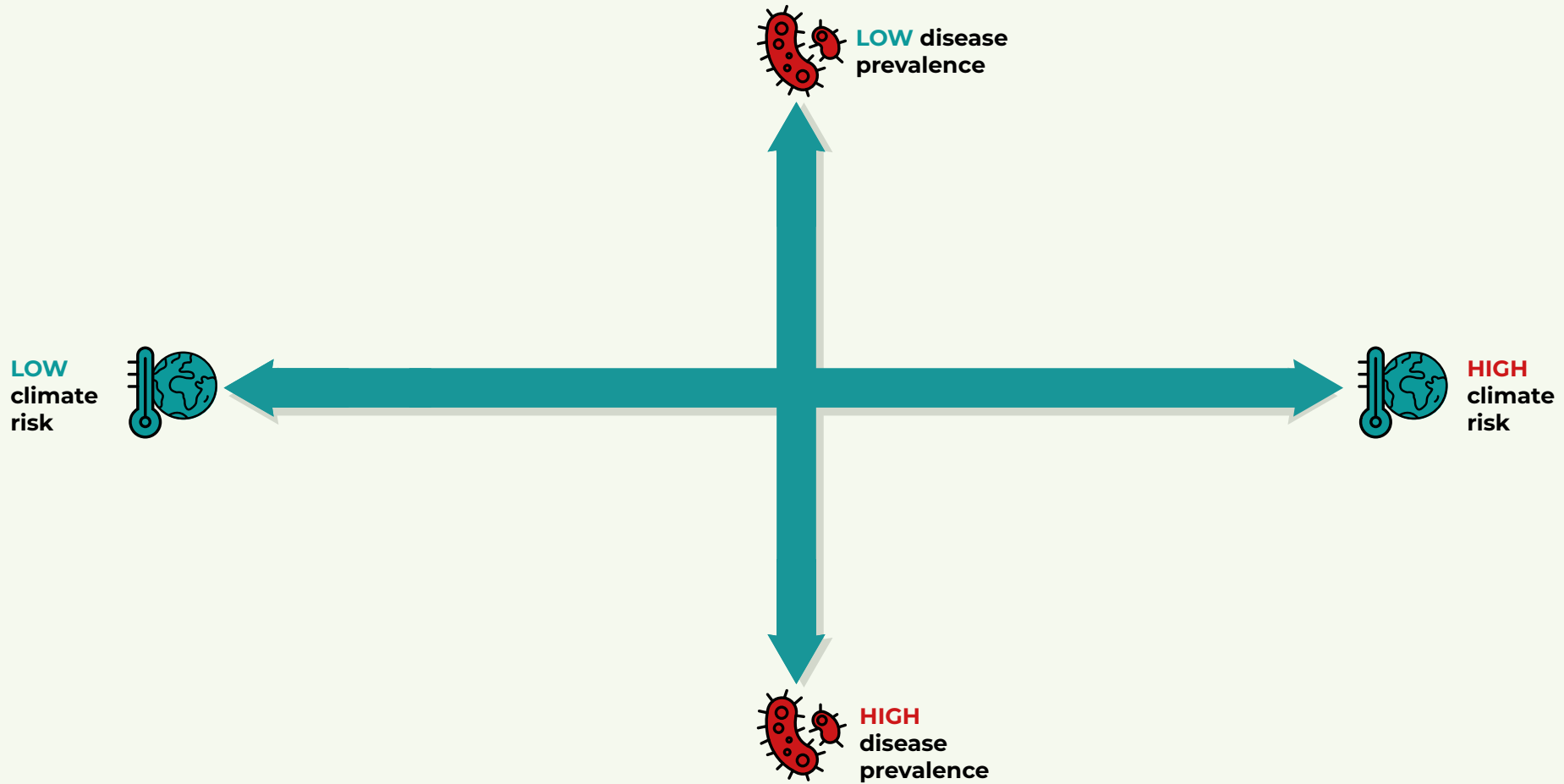
## SCENARIO 2



Low climate risk to high climate risk



Low disease prevalence/spread to high disease prevalence/spread



## SCENARIO 2



**HIGH** climate risk

### **Socio-cultural, education, gender, youth**

Widening wealth gap, nutrition and food insecurity, school dropouts, greater impact on women - alternatively women farmers become more important, social safety nets are diminished, potential increases in displacement due to droughts, floods, enhanced disease prevalence; Inequitable impact of disease across society (poor and marginalized, elderly, women), health resources overstretched, district and backlash to lockdowns.



### **Agriculture productivity: livestock, crops and aquaculture**



Loss of crops, livestock to drought, potential for greater climate disease risk, severe challenges meeting food security needs of population.

### **Political / Institutional**



Likely power grabs by government leaders, move to more authoritarian government through shutdowns, loss of trust between GO and other societal sectors.

### **Environmental state, ecosystem function, forest cover, soil health**

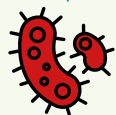


Reduced sources of livelihoods lead to enhanced conflict over resources leading to destruction, loss of wildlife, vegetative cover, forest, water quality, concerns over sources of disease lead to destruction of resources.

### **Economic, investment and trade**



Dramatic reduction in national productivity and GDP, potential damage to infrastructure, focus on self-sufficiency (staples), closing of business across value chains.



**HIGH** disease prevalence



### QUESTION?

Is it possible to build a 'business-as-usual' scenario, for example, if we continue as we are, what will happen?

“ Scenario story lines serve as **plausible futures** that provide insights into **what may happen that we have not considered** allowing us to **plan accordingly**. ”



## REFLECTIONS AND GUIDING QUESTIONS

### How do we integrate national and regional level scenarios?

This is difficult because people have different perspectives and priorities in a scenarios development process. As aforementioned, in the scenario development case study in Vietnam, there was considerable disagreement between the regional and national level stakeholders on the importance of the role of China on the economy.

This presented a lot of uncertainty and people had vastly different viewpoints on the subject. This was dealt with by developing more

detailed matrices including multiple axes representing five high uncertainty drivers. It was a useful exercise that took around four days to complete.

The result included the viewpoints of both the national and regional level stakeholders. It should be noted here that this module has described one method of developing scenarios, the method you choose should suit the focal issue in question.

### How do we link parallel initiatives and policy planning using the scenarios process?

Invite the people on both teams into one room and encourage dialogue around the key drivers and uncertainties they face, and what their preferred futures look like, for both policy processes.





# BUILDING SCENARIO PROCESS

Define focal issue and relevant time frame



1

Group drivers into categories



3

Select high impact & high uncertainty drivers



5

Build scenario storylines



7

Identify and brainstorm drivers of change



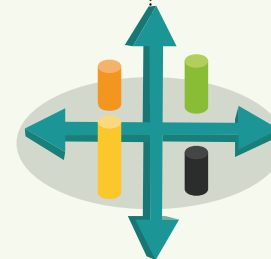
2

Identify high impact & high uncertainty drivers



4

Set up scenario axis

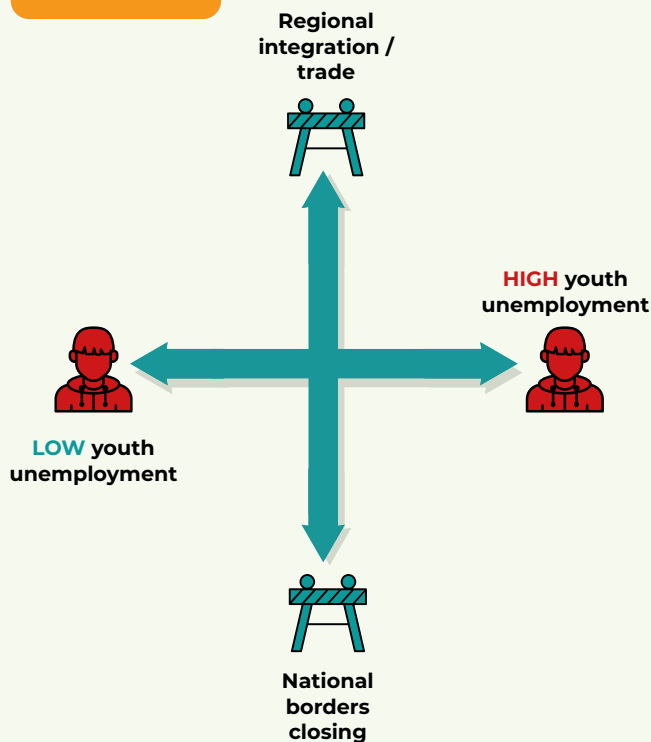


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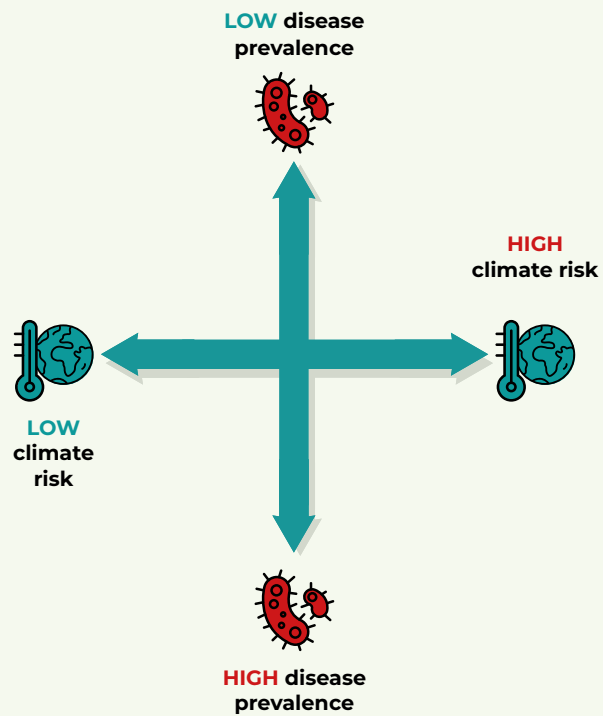


# It is important to build scenarios across multiple drivers

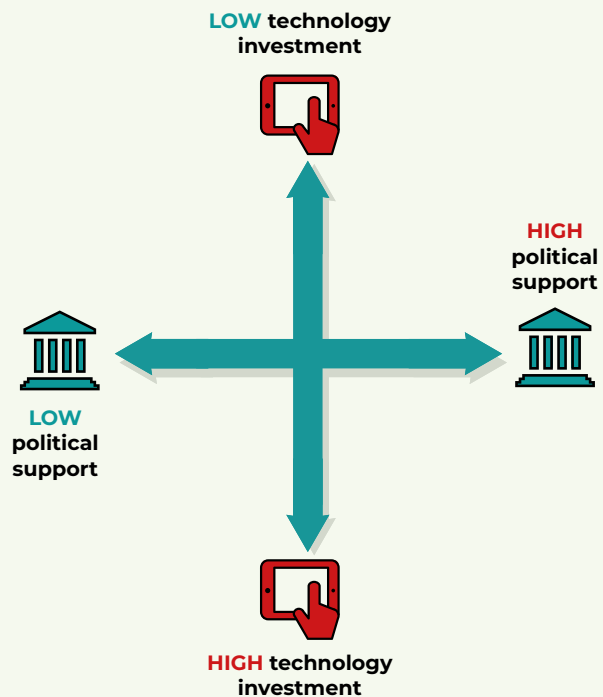
**SCENARIO 1**



**SCENARIO 2**



**SCENARIO 3**



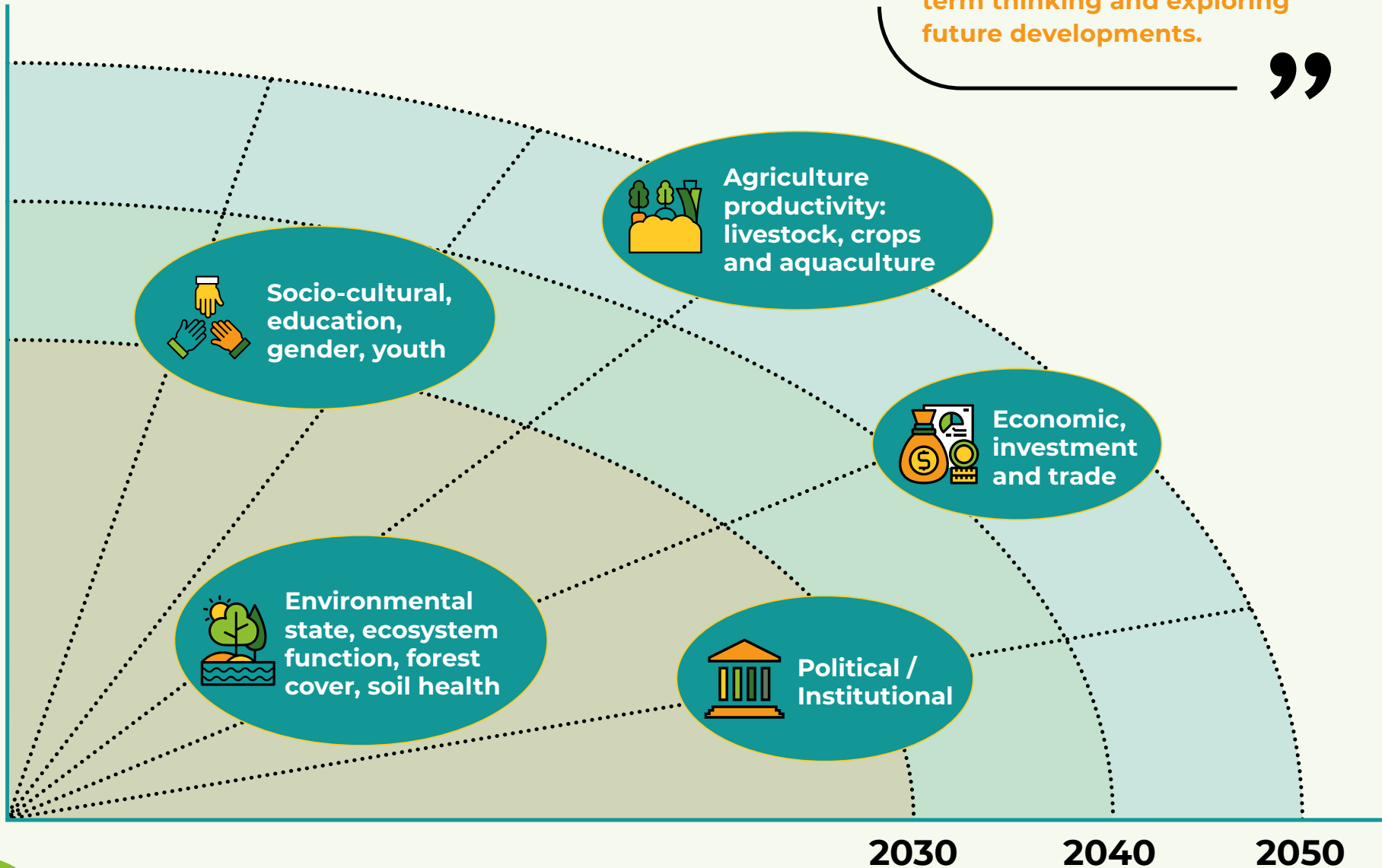
## REFLECTIONS AND GUIDING QUESTIONS

**What happens if you have more than two drivers you want to explore?**

That is great - you can create many different scenarios. Each scenario works with two drivers. If you have more than two drivers, you can create another scenario with the other two drivers you want to explore.

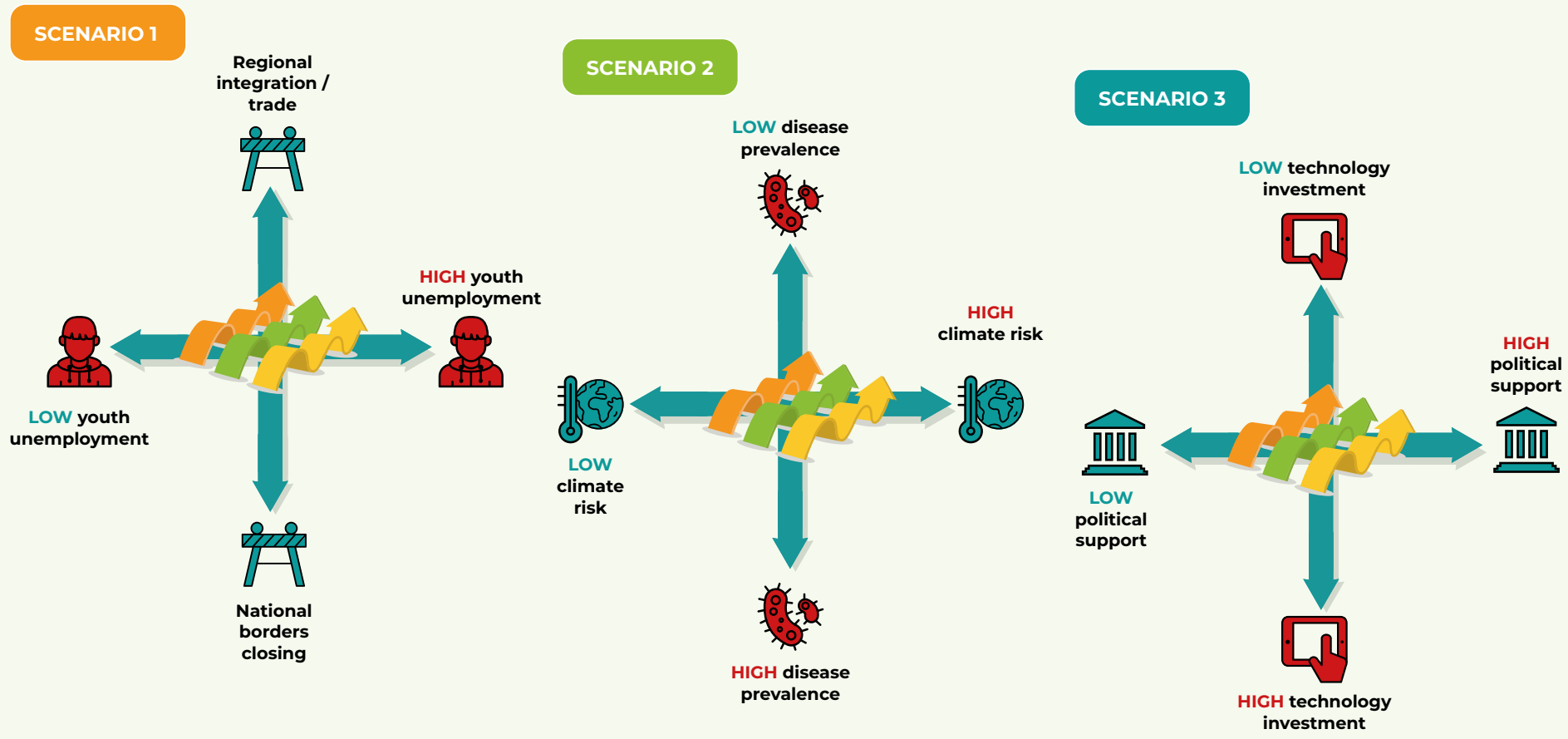
“ True value lies in enhancing the ‘cognitive agility’ of planners by extending long-term thinking and exploring future developments. ”

## What is coming out of your scenarios – aspects in the next five or 10 years that need urgent attention



# WHERE SCENARIOS MEET VISIONS

Looking across multiple scenarios we find storylines that represent preferred futures and the futures we hope to avoid



“ Foresight is the ability to create high-definition forward views, and to apply them in an organized way ”



## PREFERRED FUTURE STORY LINES

### Socio-cultural, education, gender, youth



**Students are staying in school** to increase opportunities of better employment. Social safety nets are in place to provide women and youth with nutrition foods and vocational training. Investments are focused on preventative health approaches in conjunction with emergency response.

### Environmental state, ecosystem function, forest cover, soil health



Investments are made in land health and diverse land cover to enhance carbon capture prevent transboundary disease transfer.

### Agriculture productivity: livestock, crops and aquaculture



Farming systems are diversified through agro-ecological to reduce climate risk, increase water holding capacity and enhance nutrition.

## FUTURE STORY LINES TO AVOID

### Agriculture productivity: livestock, crops and aquaculture



Loss of crops, livestock to drought, potential for **greater climate related disease risk**, severe challenges meeting food security needs of population.

### Political / Institutional



Likely **power grabs** by government leaders, move to more authoritarian government through shutdowns, loss of trust between GO and other societal sectors.

### Economic, investment and trade



Dramatic reduction in national productivity and GDP, potential **damage to infrastructure**, focus on self-sufficiency (staples), closing of business across value chains.



# DESCRIBE DESIRED OUTCOMES & ASPIRATIONS



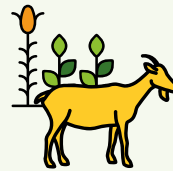
**Economic**

Private sector and government invest in decent, green employment with a focus on women, youth and marginalized groups.



**Socio-cultural**

Nationally appropriate social protection systems (health, nutrition and livelihoods) cover needs of poor, marginalized and vulnerable.



**Agricultural productivity**

Market-oriented diversified small farms using agro-ecology dominate Southern African agriculture.



**Environment**

Energy sources are increasingly based in renewable resources.



**Institutional**

Climate change measures are built into all national policies, strategies and planning. Sectoral plans adequately integrate climate risks and resilience and are clearly linked across sectors.



**Technology & Information**

Rural and urban farmers have connectivity market products shorten supply chains and increase transparency.



**Climate proof infrastructure**

**Education and continued learning are deeply valued**

**Supporting**



Mechanisms for private sector to invest in value chains and entrepreneurship



Green jobs and entrepreneurship of youth



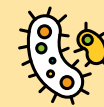
Mechanisms to enhance farmers organizations' capacities agroecological and nutrition smart practices



Mechanisms to incentivize and coordinate multi-stakeholder and multi-sectoral efforts



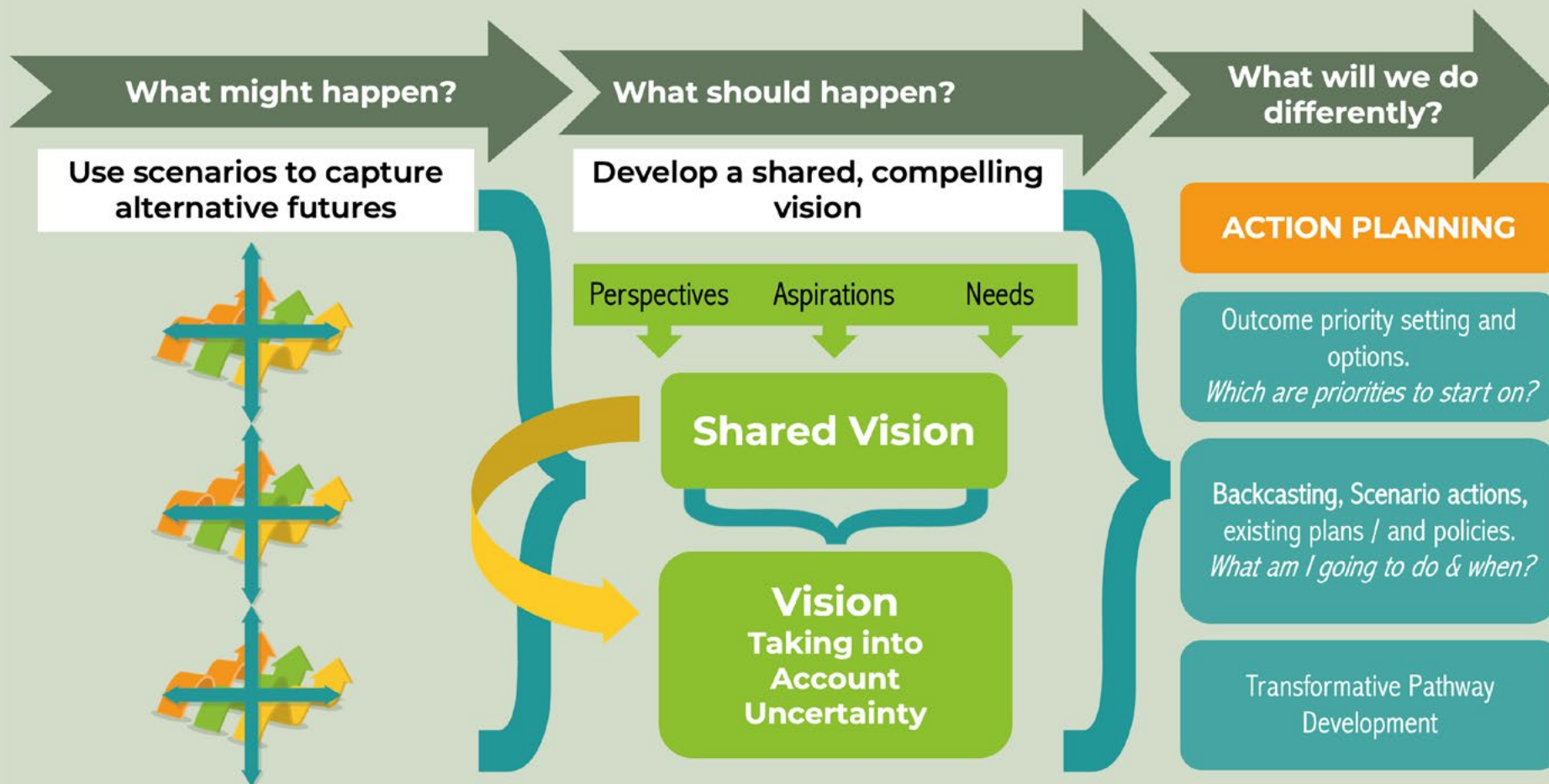
**Create guardrails in policies to support governance**



**Means of monitoring for and preparing for climate-oriented disease and disaster**



**Mechanism are place for effective local and distance learning**



Use scenario narratives to fortify the vision and scenario implications to explore pathways toward the vision.





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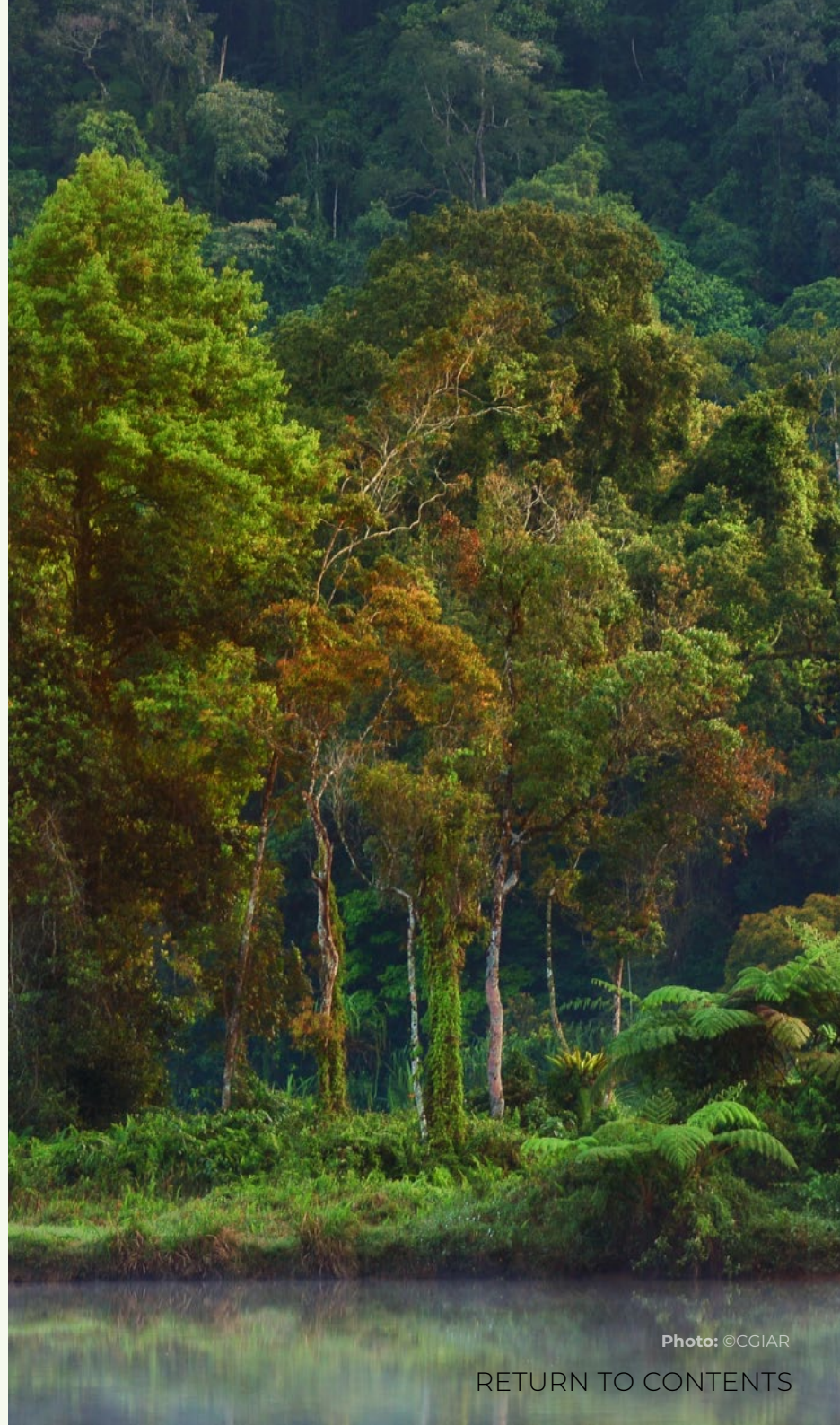
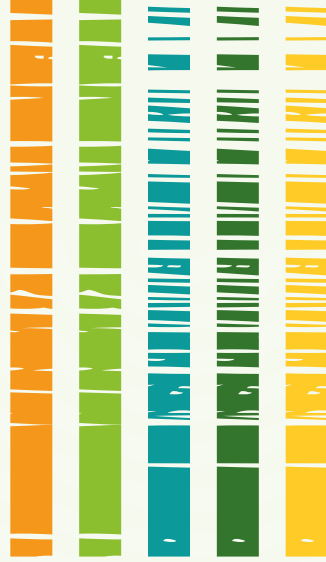


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