

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

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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



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www.coraf.org

ACRONYMS AND ABBREVIATIONS

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



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CONTENTS

THE AIM OF THE REGIONAL FORESIGHT TRAINING TOOLKIT	5
FORESIGHT COMMUNITY OF PRACTICE	6
FORESIGHT KEY FRAMEWORK STAGES	7
STRUCTURE OF THE TOOLKIT	8
GLOSSARY OF KEY TERMS	9
MODULE 02	17
Understanding Trends and Multi-sectoral and Systems Linkages	
REFERENCES	75



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



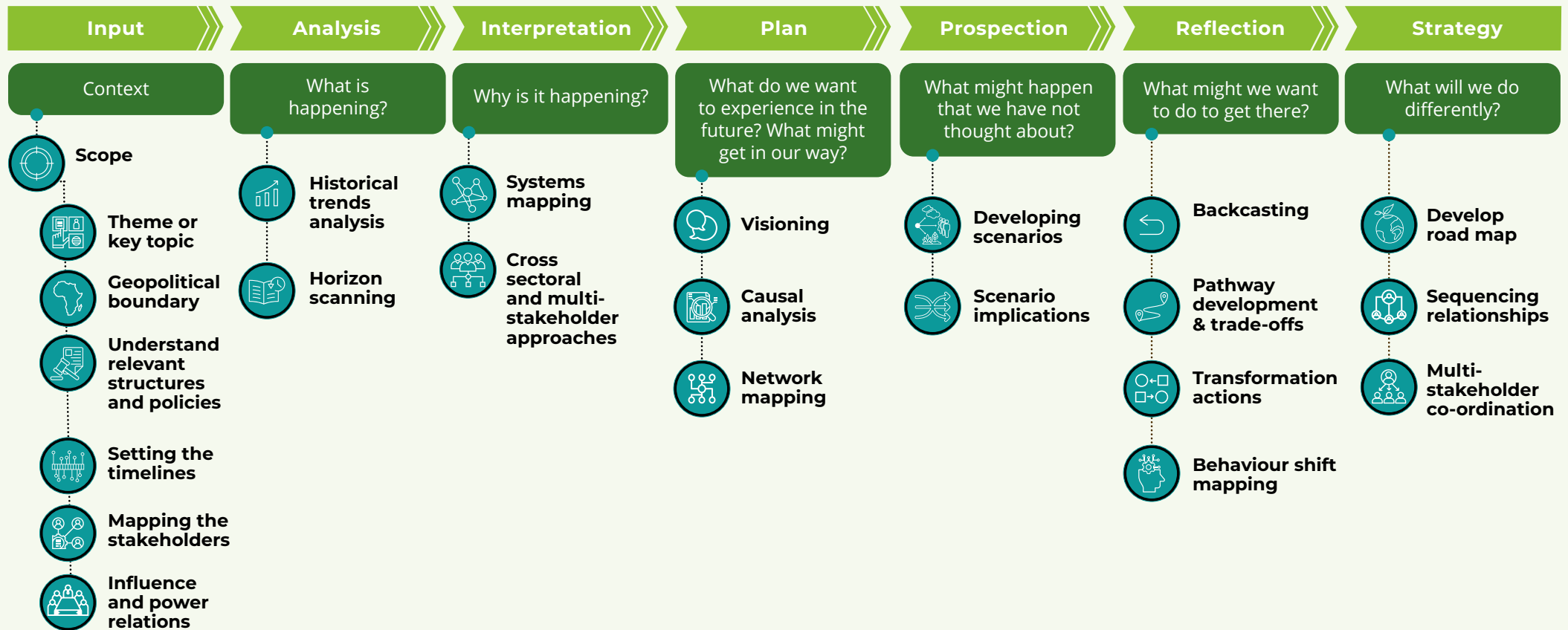
DATA, EVIDENCE, KNOWLEDGE AND CREATIVITY



STAKEHOLDER ENGAGEMENT AND PARTICIPATION

SITUATIONAL ANALYSIS

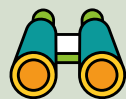
LONG TERM FUTURE PLANNING



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
Backcasting 	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.
Barrier 	Identified obstacle that could stop the achievement of an activity.
Black Swan 	An event that could absolutely not be predicted.
Brainstorming 	A method of obtaining ideas without judgement or filtering. It involves encouraging wild and unconstrained suggestions and listing ideas as they emerge.
Causality 	A logical link between events, where a cause precedes an effect and altering the cause alters the effect.
Complexity 	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
Critical Uncertainties 	Are drivers that are both highly impactful and highly uncertain.
Cross-cutting Issues 	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.
Drivers 	Are factors, issues or trends that cause change thereby affecting or shaping the future.
Driving Force 	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).
Evidence 	The integration of raw data constituting numbers, words, images, and insights emerging from diverse knowledge sources.
External Driver 	External force of change, for example political or market drivers.







Term	Description
Feasible 	Possible and practical.
Forecast 	An estimate or best guess of what might happen in the future i.e. not a definitive prediction.
Foresight 	Structured tools, methods and thinking styles to enable the capacity to consider multiple futures and plan for them.
Foresight Organising Group 	A small core group that builds the foresight plan.
Foresight Participating Group 	A broad mix of identified key stakeholders that need to be involved.
Futuring 	The act, art, or science of identifying and evaluating possible future events.
Futures thinking 	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
Grey Rhino 	These are the large, obvious dangers that will sooner or later emerge but whose exact timing is unknown.
Impact 	Refers to the potential scale of impact of a driver on a scenario theme.
Internal Driver 	Internal force of change for example, social drivers within a farm or community directing the decision making of a farmer.
Mega-trend 	A trend that is apparent at a large or global scale e.g. growing youth population across the African continent.
Mind Mapping 	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.
Modelling and Simulation 	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
Not Predictive 	Participatory with multiple viewpoints, bringing in quantitative and qualitative evidence but not predictive.
Pathway 	A trajectory in time, reflecting a sequence of actions and consequences against a background of separate developments, leading to a specific future situation.
Plausible 	It is reasonable to assume the scenario could happen. Plausibility does not mean that a future situation will happen.
Predictability 	The degree of confidence in a forecasting system based either on law derived from observations and experience, or on scientific reasoning and structural modelling.
Projecting 	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.
Projection 	An expected value of one or more indicators at particular points in the future, based on the understanding of selected initial conditions and drivers.
Resilience 	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
Scenarios 	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.
Scenario Development 	<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>
Scenario planning 	Is a technique of strategic planning that relies on tools and technologies for managing the uncertainties of the future
Social Network Mapping 	A tool to identify the importance and influence of stakeholders as well as how they exchange information or are connected.
Strategic foresight 	The combination of foresight and strategic management
Time Frame 	The complete period (past-to-future) considered in a foresight exercise.

Term	Description
Transformation 	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.
Trend 	A general tendency or direction of a movement or change over time e.g. increasing erratic seasonal rainfall patterns.
Trend Impact Analysis 	Collecting information and attempting to spot a pattern, or trend, and assess its influence from the information.
Uncertainty 	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.
Underlying Cause 	Unpacking why an obstacle is in place.






Term	Description
Unknown Unknowns 	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.
Viable 	Able to be done or could occur.
Vision 	A compelling image of a (usually preferred) future.
Visioning 	A well-known prospective technique with a highly participatory approach.
Wicked Problem 	A problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognise.
Wild Card 	A low-probability but high-impact event that seems too incredible or unlikely to happen.







CLIMATE RESILIENCE

Term	Description
Adaptive Capacity 	The ability of systems, institutions, humans, and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences.
Climate Change 	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.
Climate Resilience 	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.
Exposure 	Refers to the inventory of elements in an area in which hazard events may occur.

Term	Description
Hazard 	A possible, future occurrence of natural or human induced physical events that may have adverse effects on vulnerable and exposed elements.
Risk 	Intersection of hazards, exposure, and vulnerability.
Sensitivity 	The degree to which a system is affected, either adversely or beneficially, by climate variability or change.
Social Vulnerability 	Inability of people, organisations, and societies to withstand adverse impacts from multiple stressors to which they are exposed.
Vulnerability 	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
Agriculture 	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.
Agricultural Value Chain 	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.
Biological Diversity 	The variability among living organisms from all sources, including terrestrial, marine, and aquatic ecosystems.
Cross Sectoral Coordination 	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).
Ecosystem Services 	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
Elements 	The different, discrete elements within a system (e.g. farms, organisations, inputs, and soil).
Interconnections 	The relationships that connect the elements (e.g. rules, ideas, funding, or service relationships, among others).
Land Degradation 	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.
Multi-Stakeholder Collaboration 	Consists of a mix of representatives or stakeholders from public, civil, and private domains of society.
Post-Harvest Loss 	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.
Pre-production 	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
Productive Inputs 	These are used to increase yields and range from improved seeds, genetics, fertilisers and crop protection chemicals to machinery, irrigation technology and knowledge.
System 	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.
Systems Thinking 	A mindset, tool, and process that is reserved for complex problems.
Systems View 	Understands life as networks of relationships.
Transboundary Animal Disease 	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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[RETURN TO CONTENTS](#)



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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

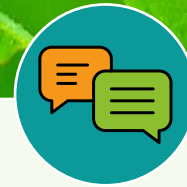
refers to a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. Preparedness is associated with disaster risk reduction.



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

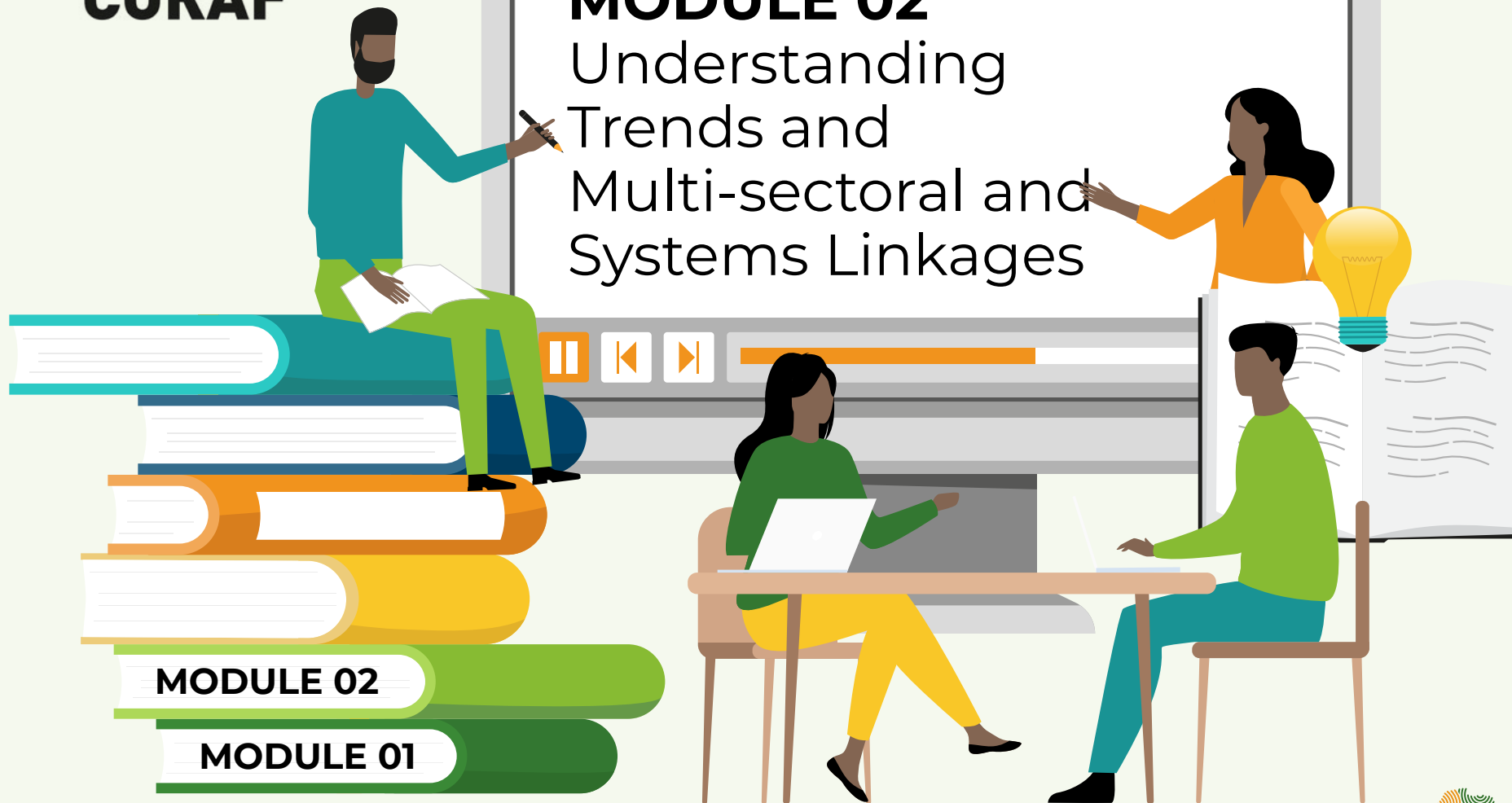
refers to a series of coordinated activities involving one or more organizations, in order to respond to pests and disease concern/outbreak and bring the situation under control.

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 02

Understanding Trends and Multi-sectoral and Systems Linkages



MODULE 02

MODULE 01



MODULE 02
Understanding Trends and Multi-sectoral and Systems Linkages



[RETURN TO CONTENTS](#)



WHAT WILL YOU LEARN?

Module 2 covers the **analysis and interpretation stages of the foresight process**. The analysis stage is important for understanding 'what is happening' by using trends analysis, horizon scanning and evidence gathering. The interpretation stage then investigates 'why it is happening'.

The interpretation stage incorporates systems mapping as well as cross-sectoral and multi-stakeholder linkages. Throughout the module, examples of application of the foresight methods in the context of climate-resilient agricultural development in the WCA region are provided.

[RETURN TO CONTENTS](#)

OVERVIEW OF MODULE TWO





LEARNING EXERCISE

Test Your Learning of the Foresight Framework

Before diving into Module 2, test your understanding of foresight and information provided in Module 1 by answering the questions below:



What is your understanding of foresight and how do you define it?

Foresight is:

'How one thinks about and anticipates the future.'

'An estimation of best-case scenarios.'

'Planning tools that help create clarity of sight into the future.'

'A strategic approach for approaching future scenarios.'

'Anticipating the future and planning to mitigate risks.'

'The appropriate use of data to predict future scenarios.'

'Helpful with future predictions.'

'A system used to establish how to move towards a desired future.'

ANALYSIS PHASE – WHAT IS HAPPENING?

The analysis stage of the foresight process follows on from the input stage. The analysis stage deepens our understanding of what is happening around us in terms of influential historical events and key trends. Essentially, this stage involves the analysis of environmental scanning results to determine major change shifts that need to be explored to identify potential strategic implications (Thinking Futures, 2020).



QUESTION?

As this stage continues to explore the chosen context or theme, the key question remains the same as for the input stage:

What is happening?



MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

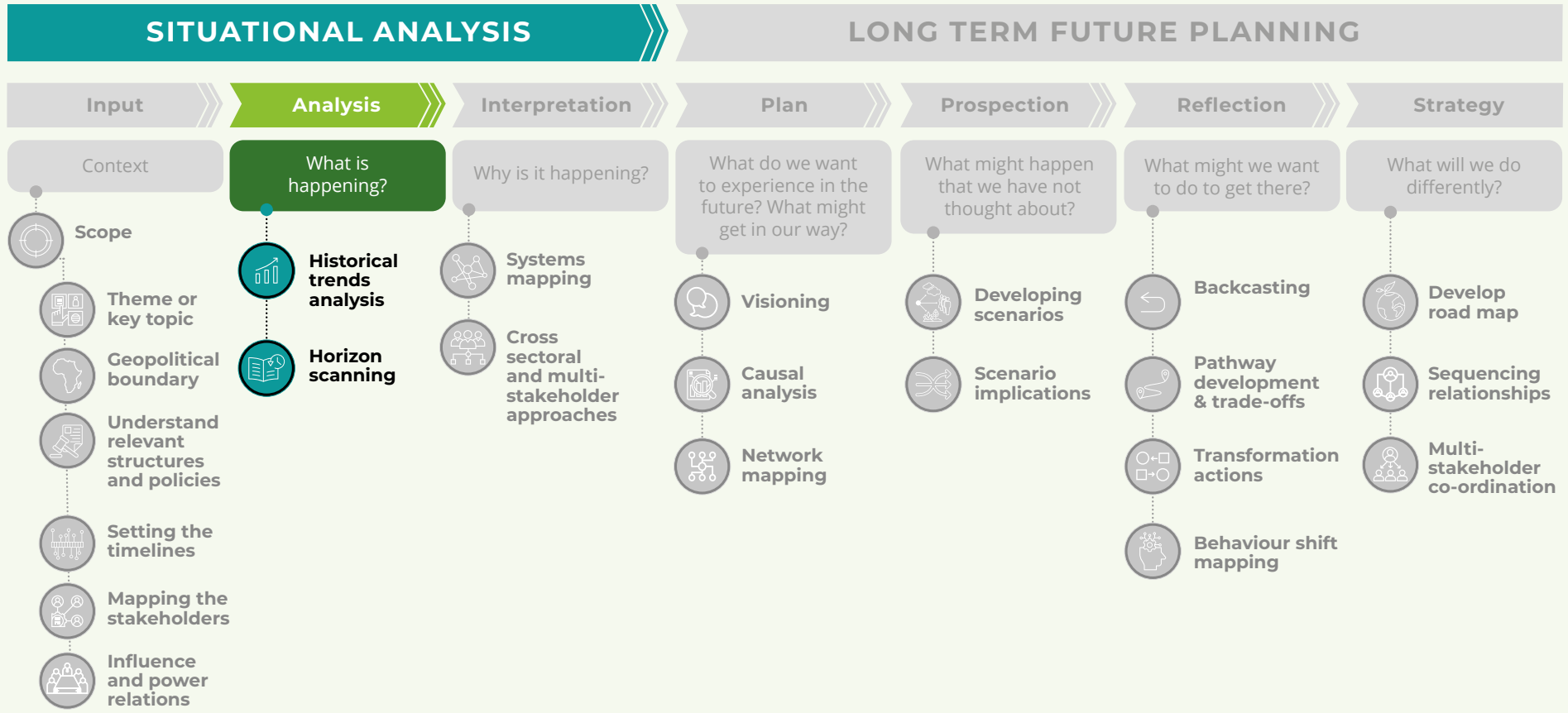
FORESIGHT KEY FRAMEWORK STAGES



DATA, EVIDENCE, KNOWLEDGE AND CREATIVITY



STAKEHOLDER ENGAGEMENT AND PARTICIPATION





ANALYSIS



Historical trends analysis



Horizon scanning

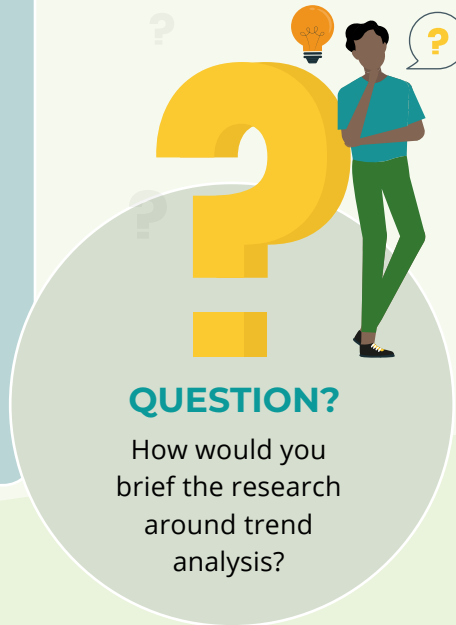


HISTORICAL TRENDS ANALYSIS



What is the Method

- Collecting information on drivers and trends and identifying which are most critical for consideration within the given topic.
- Trend analysis is a method that involves reviewing historical data to understand potential trends going forwards and what this means for shaping the future.



QUESTION?

How would you brief the research around trend analysis?

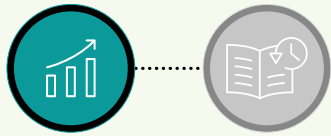


The purpose of a foresight exercise is to generate new insight and therefore cannot be produced rapidly by simply synthesising existing analysis



Where is it in the framework and when to apply it?

- Trends analysis is part of the ANALYSIS phase of the framework.
- This is when we are trying to review key trends in relation to the scope we have set for the foresight exercise.
- Foresight planning involves identifying possible futures based on key uncertainties and trends of the past.



TRENDS ANALYSIS

Key Steps



Historical analysis

Developing timelines



Review existing data

- Desk study
- Statistical models
- Key informant interviews
- Surveys
- Workshop discussion

KEY TERMS



Trend - is a "general tendency" or direction of a movement/change over time e.g. Increasing erratic seasonal rainfall patterns.



Megatrend - is a long-term change that affects governments, societies and economies permanently over a long period of time. e.g. growing youth population across African continent.



Analysing trends and drivers of possible future contexts.

Challenging received wisdom (e.g. trends will continue, but also understanding the systemic drivers of the past).

Examining interdependencies.

Should be done along different time horizons e.g. 1/5/15 year(s).

QUESTION?

- What are trends?
- What is historical trends?
- What is horizon Scanning?
- How to organizing trends into major categories?
- What are the analysing key questions?





HISTORICAL ANALYSIS

Decide on your timelines and key focus for your historical review



REFLECTIONS AND GUIDING QUESTIONS

Politics VS climate change in Africa which is the greatest issue when thinking of the future?

More youth are needed in politics in Africa. There is a need for young, energised people who want to change their futures and the futures of their children.



Photo: ©Adobe Stock



Develop a plan for your trend analysis



Key people to interview



Sources to review



Access to research and previous work

- Historical analysis
- Developing timelines
- Review existing data
- Desk study
- Statistical models
- Key informant interviews
- Surveys
- Workshop discussion

[RETURN TO CONTENTS](#)



LEARNING EXERCISE

Think about your theme and what your time frame should be. Consider how valuable data from 10, 20, 50 years ago would be.

Think about when you were **unpacking your theme in Module 1**, what drivers of change did you identify?

Use this information to develop topics for your timelines. Draw a line on a piece of paper, the first marker on the line should denote the furthest point in time that you need to revisit. The last marker should be the present year. Based on how far back in time you want to go, split the timeline into sections e.g. decades. Use information gathered from books, knowledgeable persons, journals, and reputable websites to populate the timelines. Annotate the timelines with information on the scale or magnitude of the occurrence e.g. did the disease outbreak cause the loss of 2 lives or 2000?

Use the timelines given below to guide you. Now study your timelines, what are they showing you? Are there any obvious patterns or signals of change?



QUESTIONS & ANSWERS

Who should do a trends analysis – a specialist?

It depends, sometimes no data is prepared before the workshop is held. From experience, it is preferential to **prepare data beforehand as it allows people to get involved in the analysis and discuss findings**, which is valuable to the process. If the scale of the analysis is small e.g. district level, it can be beneficial to meet with community members prior to contracting a specialist, as the community input can assist in focusing the analysis.



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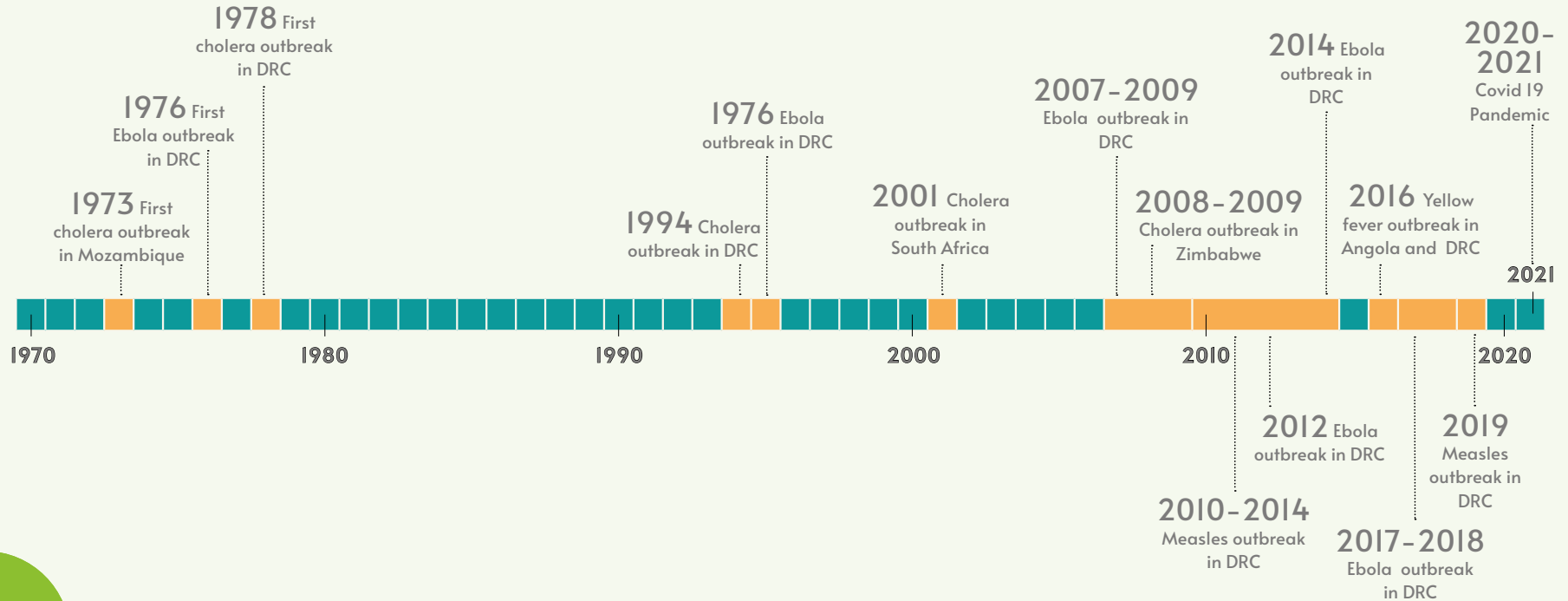


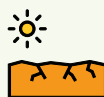
HISTORICAL TIMELINE

Between 1970 – 2021 focused on climate and agriculture related trends and events

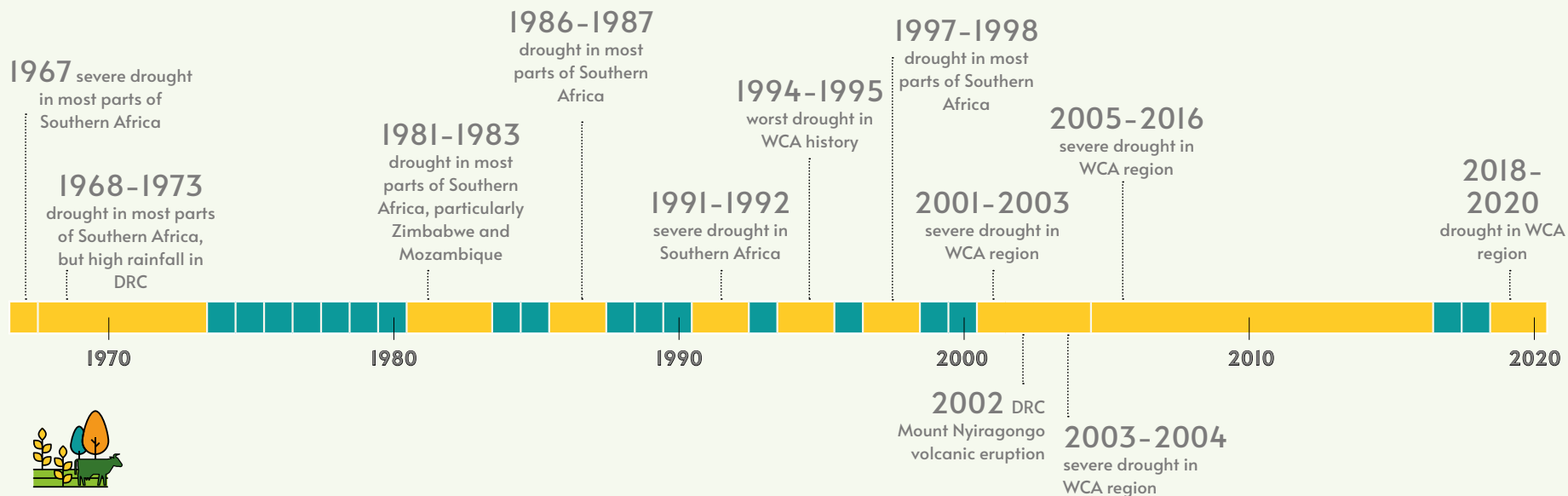


HUMAN HEALTH – Example from Southern Africa

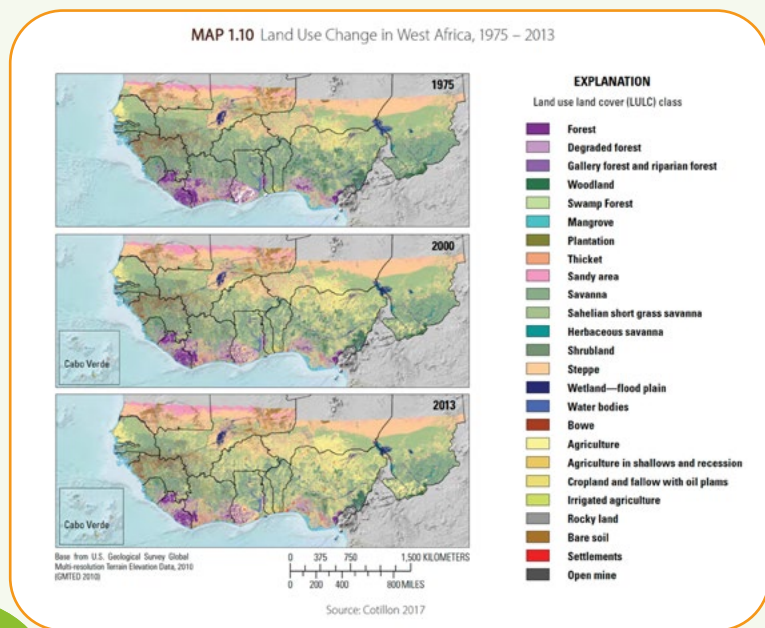




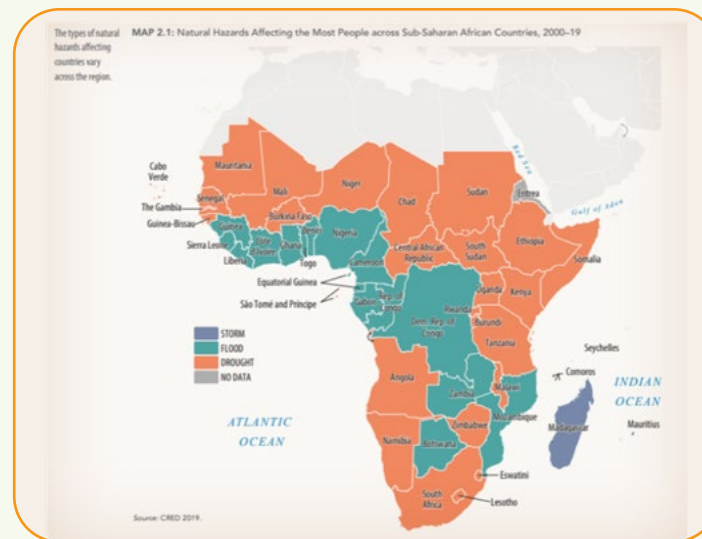
DROUGHT – Example from Southern Africa



Land Use Change in West Africa 1975-2013



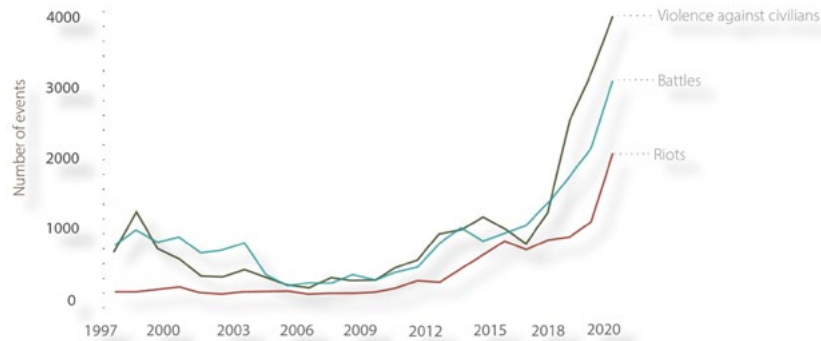
Natural Hazards Affecting Sub-Saharan Countries 2000-2019





Violent Events – West Africa 1997-2020

FIGURE 1.10 Evolution of Violent Events by Type in West Africa, 1997–2020



Source: based on ACLED 2020



QUESTION?

In your lifetime name a trend you have witnessed?



LEARNING EXERCISE



Foresight Relevant to the Regional Application on Pest and Diseases

In working groups. Review and organize available evidence. For example, for the topic of pest and diseases, collect key evidence for trends on climate change and pest outbreaks in the region. Reflect what are the key trends you are seeing. Identify any other evidence that is missing.



It is very helpful to create posters and have these displayed around the room to create an 'evidence wall' (see images as examples). Participants can then easily look at the evidence and identify what is missing and any key trends.

RETURN TO CONTENTS



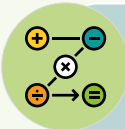
“Planners must ‘Immerse themselves in the periphery’, since events that are outside of an organization’s focal interests may have the greatest impact on its survival.”

*Haeckel, 2004 & Neugarten, 2006

Photo: ©Charlie Pye-Smith



HORIZON SCANNING



What is the Method

- Undertake rigorous analysis of trends to explore their impacts.
- Horizon scanning is the process of examining diverse information sources to identify potential signals of change and future impacts from trends identified.
- Exploring how these trends and developments might combine and what impact they might have.



Where is it in the framework and when to apply it?

- Horizon scanning is part of the ANALYSIS phase of the framework
- It is complementary to trends analysis as a method and deepens a trend analysis to scan horizons for emerging issues and analysing their potential impacts.



REFLECTIONS

Don't rush the trend analysis!

Have an authentic and deep scan.

Question data you can't find – e.g. investment and budgets.

Thinking of a preparedness plan for pests and diseases – thinking how critical to look across the trends.



GUIDING QUESTIONS

What seems to be happening?

What's really happening?

What do we want to happen?

What might happen?

What do we need to do?



What is Horizon Scanning

- The process of examining diverse information sources to identify potential signals of change and future impacts from trends identified.
- Applied at the beginning of a forward-looking activity is applied for identifying “things to come,” often new science and technology.
- Helps identify emerging issues, weak signals of change and events that could lead to changes in behaviour, strategy or policy.
- Identifies early signs of change not yet on the policy radar or addressed adequately.
- Relies on collective sense-making sessions of the scanned signals and validation through further research.

The European Commission uses horizon scanning to detect emerging issues that could have significant future implications for policy.

“

Scanning for weak signals must be distinguished from searching for information. In searching, the research scope is fairly well defined, often based on an analyst’s particular interests and expertise on a topic. Scanning looks for new insights outside an analyst’s existing mental model. In scanning, the foresight practitioner does not necessarily know what they are looking for, hence the scope is broad, often shedding light on previously uncharted unknowns.

K.E. Cuhis, 2019. <https://onlinelibrary.wiley.com/doi/full/10.1002/ffo2.23>

”

Photo: ©Freepiks

RETURN TO CONTENTS





What do we want to detect?

New trends: Non-obvious or very recently identified trends likely to weigh significantly on future events (e.g. virtual working mode).

New drivers of change: New conditions that will impact how certain social, natural or technological parameters will evolve (e.g. shift towards renewable energy).

Weak signals: Small events or novelties that, combined with other existing elements, could lead to significant changes (e.g. low rates of school attendance).

Discontinuities: Abrupt changes that either stop certain existing phenomena, introduce major changes in their dynamics or generate novel phenomena (e.g. global pandemic).

HORIZON SCANNING

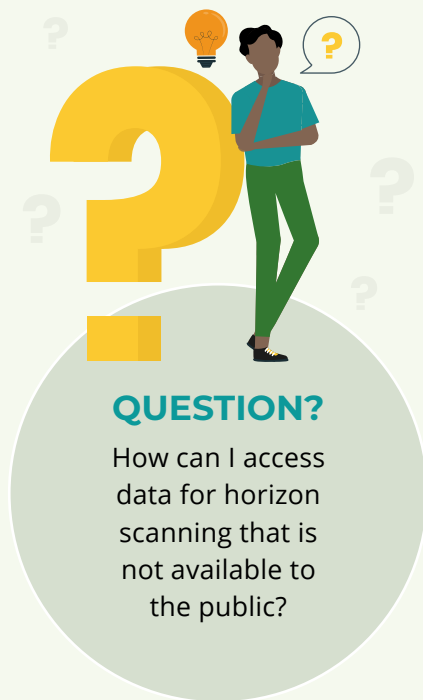
Key Steps



Summarise trends into major categories



Analyse key questions



QUESTION?

How can I access data for horizon scanning that is not available to the public?

Decision criteria for conducting a scan or reviewing the policy impact

Credibility: Is the source reputable? Are there confirmations elsewhere?

Novelty: Is the hit new? Or has it been widely reported?

Likelihood: What are the chances that the hit will occur, and that it will amount to something?

Impact: Will it change the future? If so, how big a change will that be?



QUESTIONS & ANSWERS

What questions do we need to respond to?

What is important to know about the trends for developing climate resilient agricultural livelihoods?

CATEGORIES FOR UNDERSTANDING TRENDS

S  **Social**

T  **Technological**

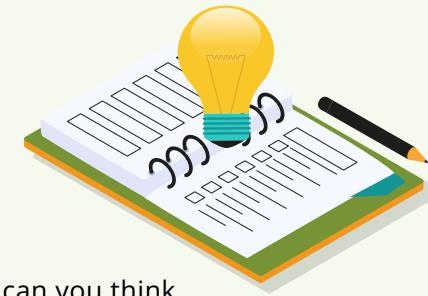
E  **Economic**

E  **Ecological / Environmental**

P  **Political**



LEARNING EXERCISE



Write STEEP vertically on a piece of paper. What trends can you think of that are relevant to your theme that fit into these categories?

Are there trends which fall into **more than one category**?

Thinking of the categories, which one are you **most likely to omit when thinking of the future**?



Gender must be incorporated throughout the STEEP categories

Photo: ©Shashank Hudkar (unsplash)



Social

Demographics (population growth, age distribution), income distribution, health consciousness, cultural barriers, norms, customs, values.



Technological

Technology incentives, level of innovation, automation, research and development activity, technological change, technological awareness and capacity levels.



Economic

Economic growth, exchange rates, inflation rates, interest rates, disposable income of consumers and unemployment rates.



Ecological / Environmental

e.g. weather, climate change, environmental policies, natural resources, ecosystem goods and services.



Political

Legal and Institutional e.g. trade, food safety, land tenure, water use, environmental and social, human rights. Institutional relationships.

[RETURN TO CONTENTS](#)



STEEP



LAND COVER AND DEGRADATION

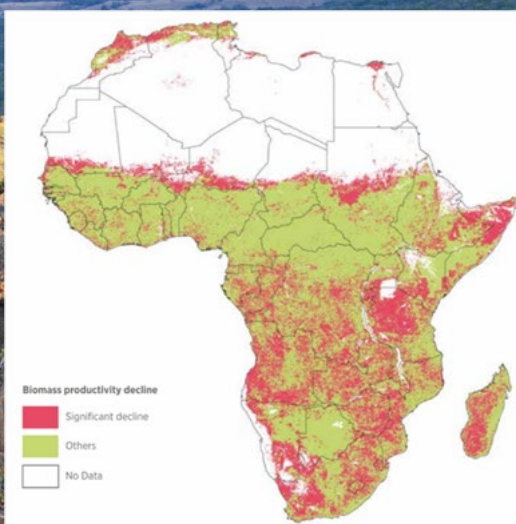
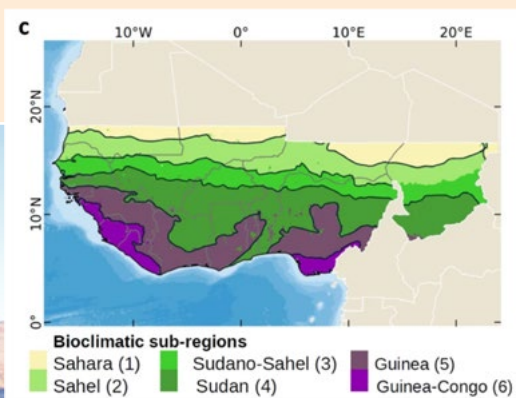


Photo: ©Vince Smith

STEEP



UNEMPLOYMENT

TABLE 1 Sum of unemployed and vulnerable jobs in West Africa, 2000–16 (percent of the labor force)

Country	2000	2003	2006	2009	2012	2016
Benin	88.6	88.4	90.5	90.1	90.0	89.3
Burkina Faso	88.3	85.1	83.9	81.7	79.1	75.1
Cape Verde	53.8	52.7	50.2	47.6	46.3	45.4
Côte d'Ivoire	80.7	80.4	81.9	82.0	81.3	78.6
Gambia	79.4	79.5	79.5	78.9	79.2	79.1
Ghana	79.1	77.2	75.9	78.0	72.1	70.9
Guinea	67.3	66.4	66.2	65.8	66.2	66.3
Guinea-Bissau	63.3	63.9	63.2	62.6	61.9	61.3
Mali	89.4	87.5	88.2	86.9	85.8	85.3
Mauritania	56.9	53.9	53.3	52.3	50.9	48.9
Niger	93.4	93.1	92.9	93.0	92.8	92.4
Nigeria	51.4	50.3	46.1	44.6	43.4	42.0
Senegal	78.7	74.8	74.5	73.4	73.4	71.5
Togo	89.2	89.3	89.2	89.1	87.6	85.9

Source: ILOSTAT 2016 and AIDB statistics.

Note: Vulnerable jobs are self-employed workers and contributing family workers.



REFLECTING ON EVIDENCE AND DATA



- **Establishing a data focal point** this requires a dedicated person on your team who can track down and do personal interactions to obtain data.
- **Value of evidence & addressing protocols** – thinking about which evidence you need to obtain, understand protocols for data sharing and how to address these.
- **Data inclusion and creating a sharing culture** – a combination of lobbying and advocacy around evidence, clarity of attribution of data and prompting data sharing through sharing!
- **Thinking in systems** – taking opportunities to link bio-physical and socio-economic data sets.



QUESTION?

What do we think we know (known knowns)?

What do we still need to find out (known unknowns)?

- **Be wary of collecting too much evidence** – information overload means we may not be able to analyse and apply it.
- **Being able to ‘sift’ information and trends is a key foresight skill** – we need to be able to start to see ‘signals’ of future change.
- **Think of the context of a large consumer company like Unilever** – they are looking 15 – 20 years ahead – what will consumer lifestyles be like, what products will they want – this is the foresight skill we need for planning for climate change.



[RETURN TO CONTENTS](#)



REFLECTIONS AND GUIDING QUESTIONS

What do we think we know (known knowns)?

We now want to know how much do we know about the pest and diseases in WCA? Can you share two things that you feel confident that you know a lot about?

What do we know about land degradation in the ECOWAS region?


What do we do we still need to know about land degradation in member countries in developing plans for climate resilient agricultural livelihoods?

[RETURN TO CONTENTS](#)

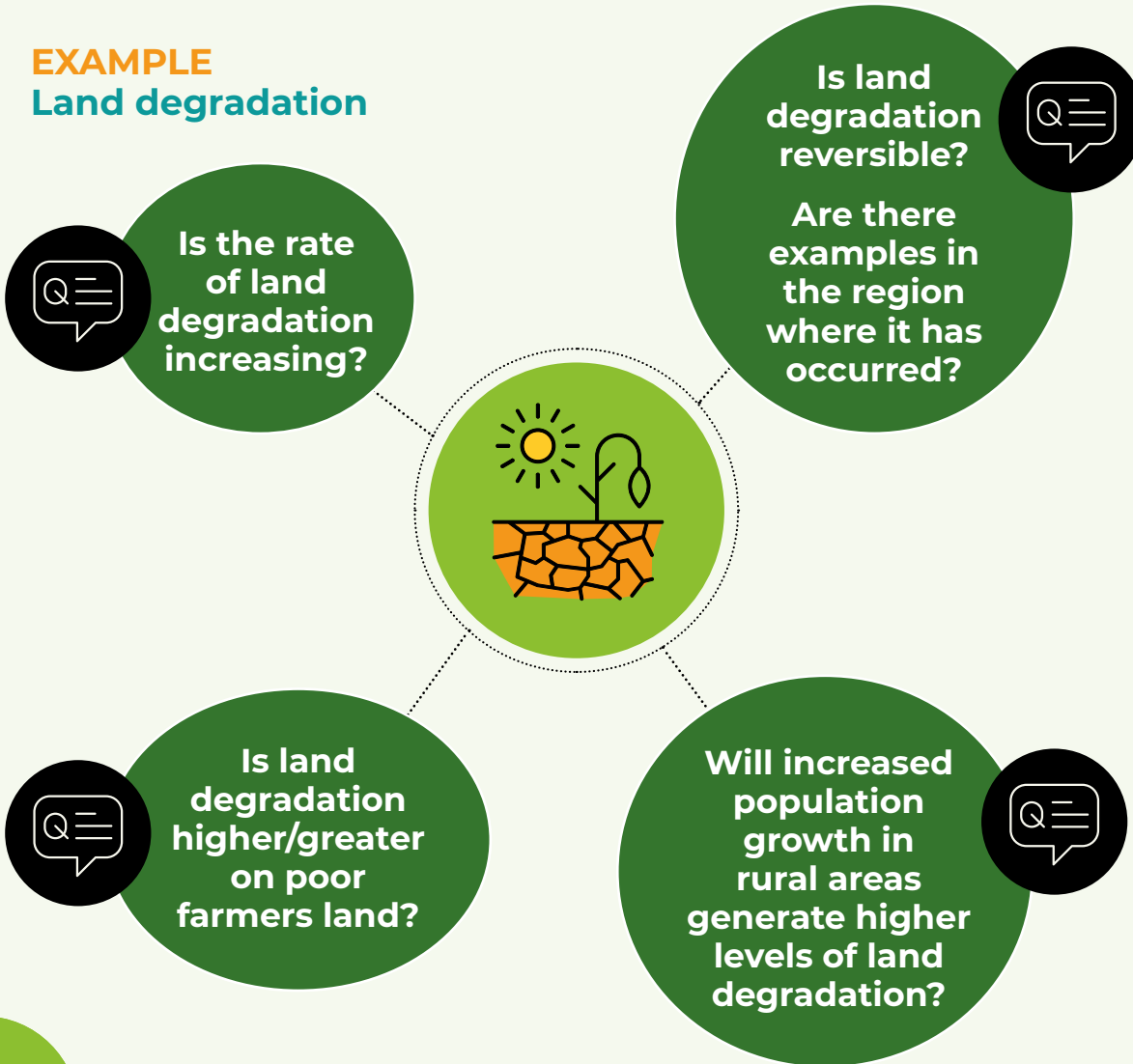
HORIZON SCANNING

Key Steps

 Summarise trends into major categories

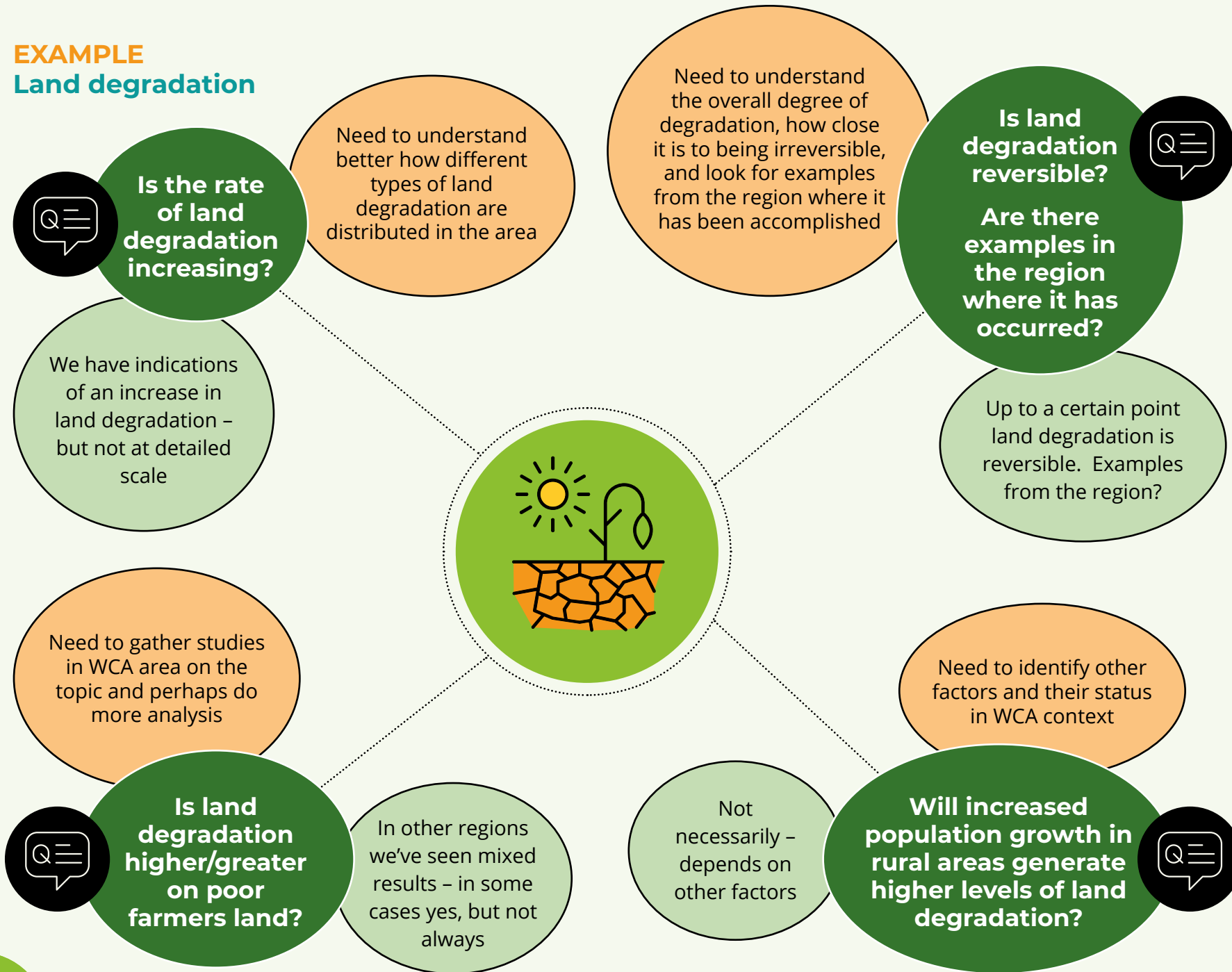
 Analyse key questions

EXAMPLE Land degradation





EXAMPLE
Land degradation





LEARNING EXERCISE

What do we think are key questions for a horizon scan for pests and disease in the region?



Ask the participants to present what we are doing and why



FACILITATING A HORIZON 'SCAN' EVENT USING AN EVIDENCE WALL

What is it

A physical or virtual display of multiple evidence forms across themes and sectors.

Why we use it

- Encourages dialogue and discussion on the meaning, relationships, relevance, and implications of the information.
- Allows scientists, technical officers, NGO partners, and Private Sector to explain information in an interactive way.
- Display information across different themes/sectors to understand relationships and implications.
- Brings preliminary, results and data into discussion space to discuss and understand complex data.
- It can be used in different contexts.
- It helps teams identify gaps in information that may be needed.



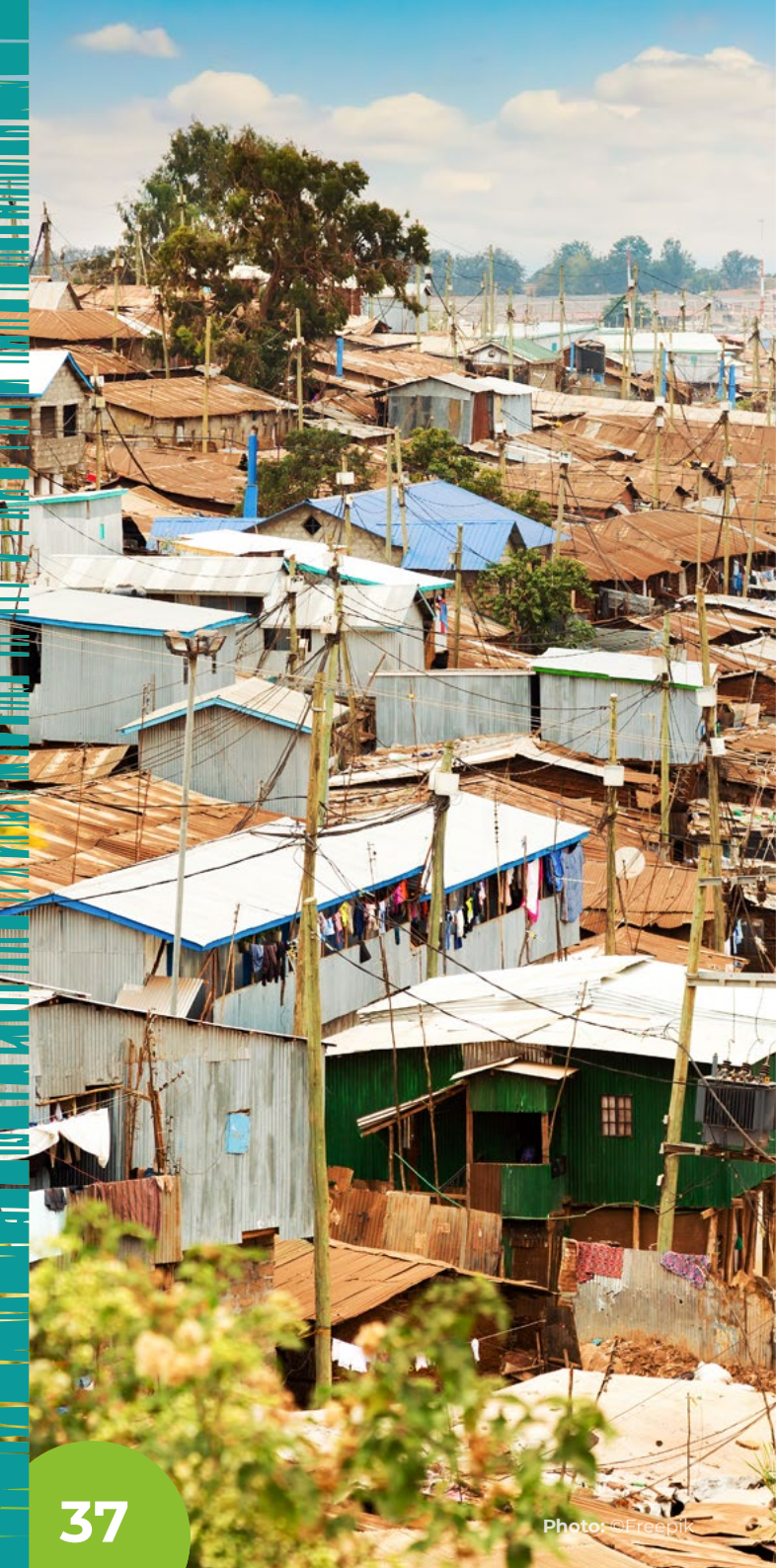
REFLECTIONS AND GUIDING QUESTIONS

How might insights and experience fit in within your evidence wall?

Climate events can have a high impact but data availability is poor, how do we manage this?

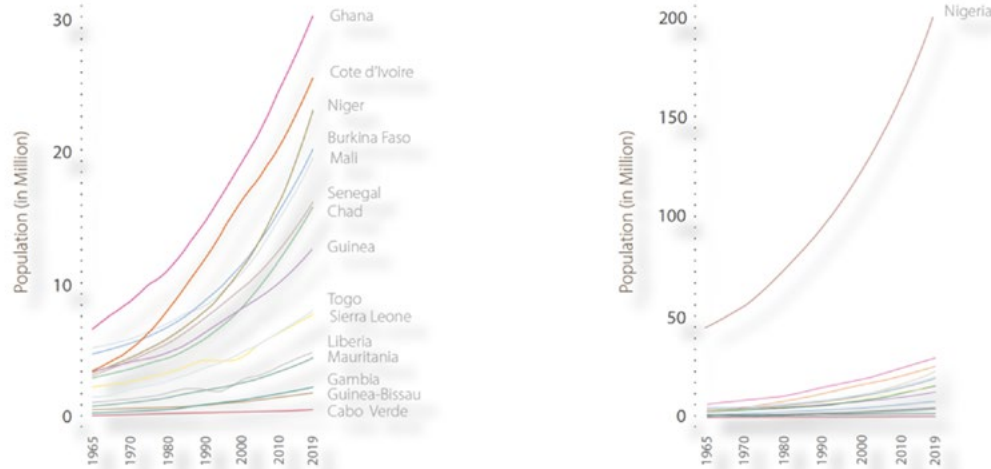
In the context of climate data, the number of ground level weather stations has declined globally. Fortunately, with advances in technology there are new data gathering methods.

For example, remote sensing and other big data sources can be used in combination with existing ground level weather data (where available) to fill the gaps. Furthermore, some websites pull together household datasets such as from household weather stations around Sub-Saharan Africa.



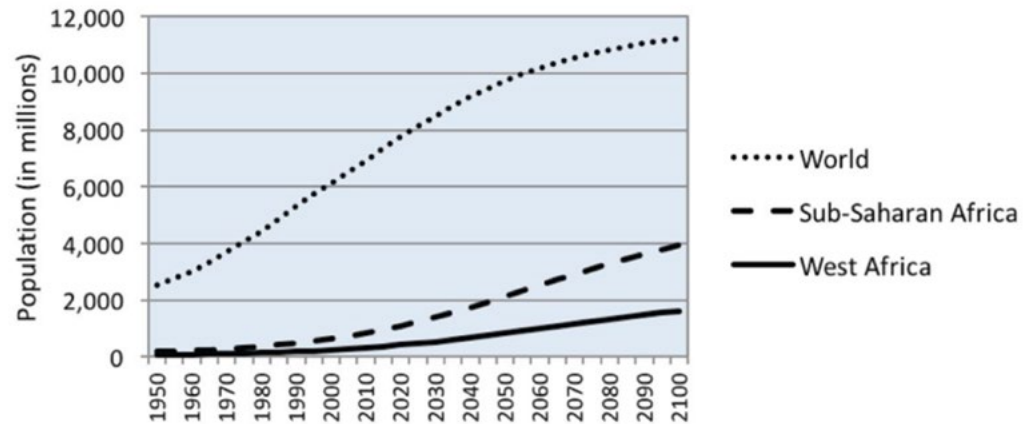
Social POPULATION GROWTH

FIGURE 1.5 West Africa Population Growth



Source: World Development Indicators Database (WB 2020c)

Projected population growth from 1950 to 2100





Social POPULATION GROWTH



Social POVERTY

Western Africa ▼
2020

Population: 401,861,254

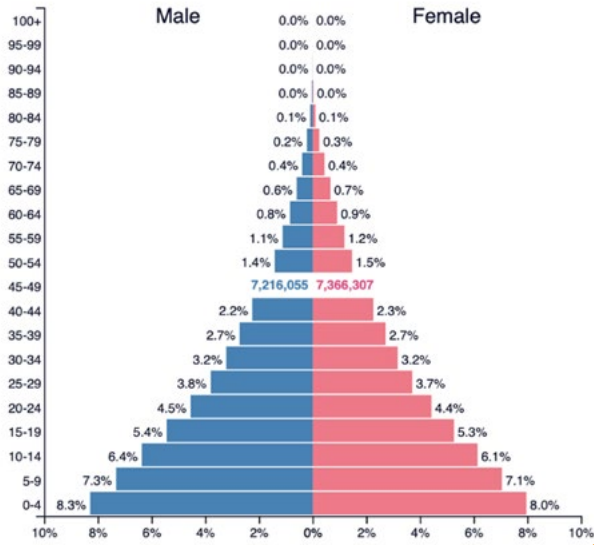
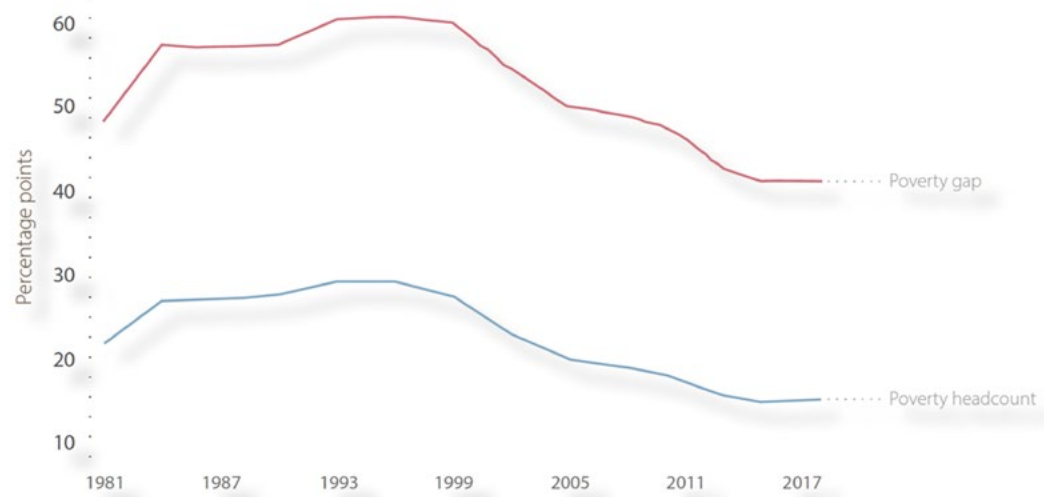


FIGURE 1.4 Headcount and Poverty Gap of West Africa, 1981–2018



Source: PovcalNet (WB 2020b)



Photo: ©Adobe Stock

[RETURN TO CONTENTS](#)



Social INCOME

FIGURE 1.2 Per Capita Income (PPP, Constant 2017 International \$) for West African Countries, 2000 and 2019

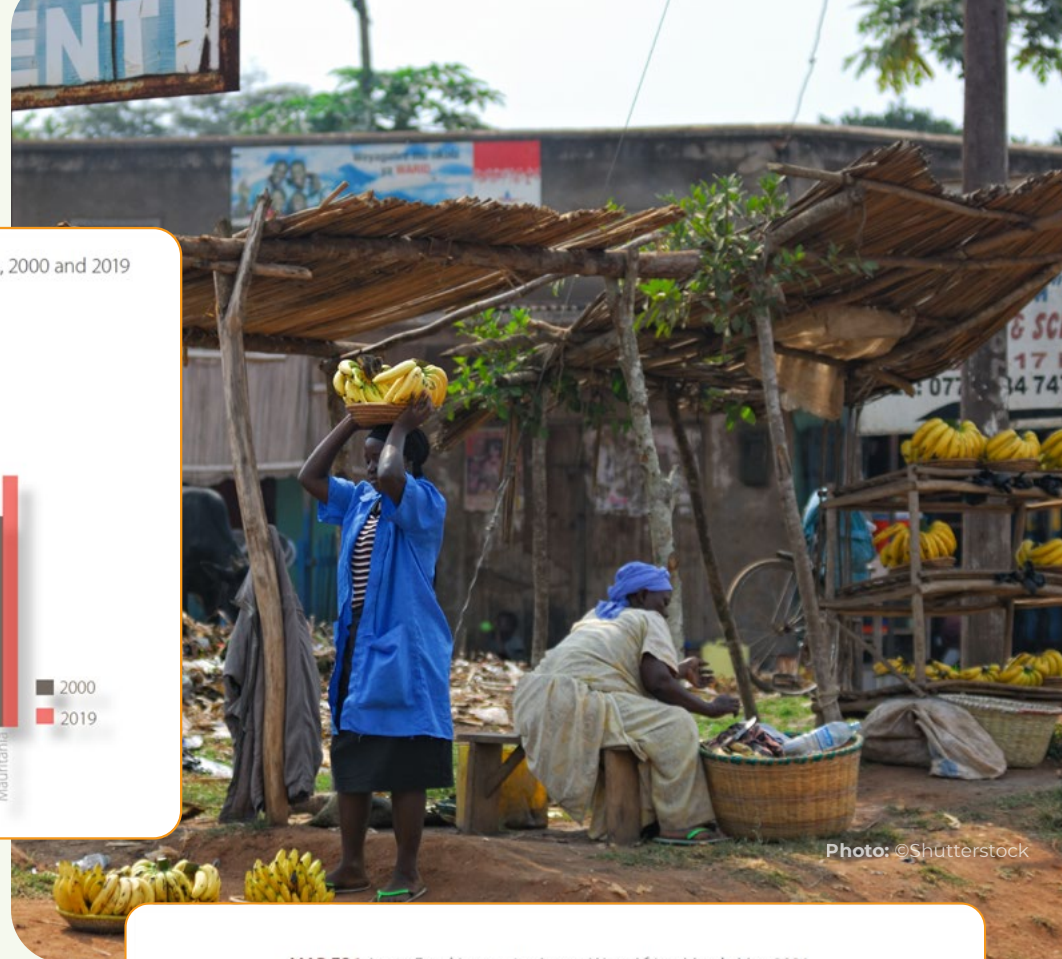
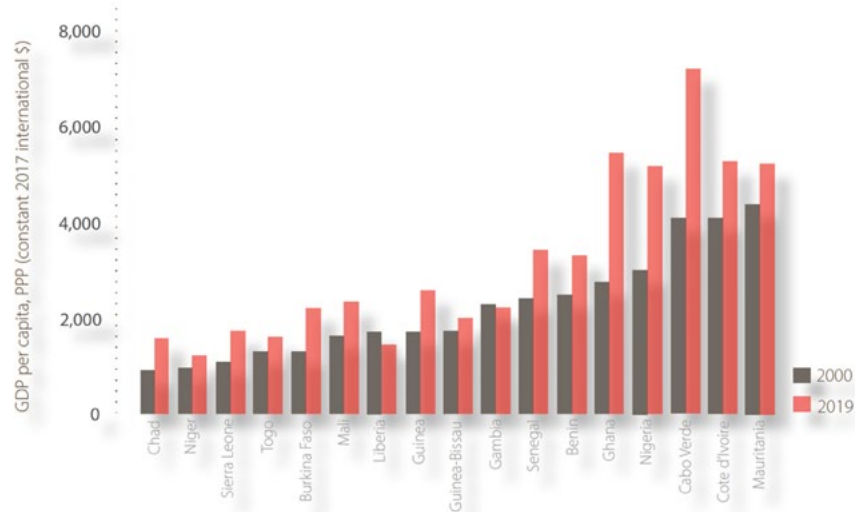


Photo: ©Shutterstock



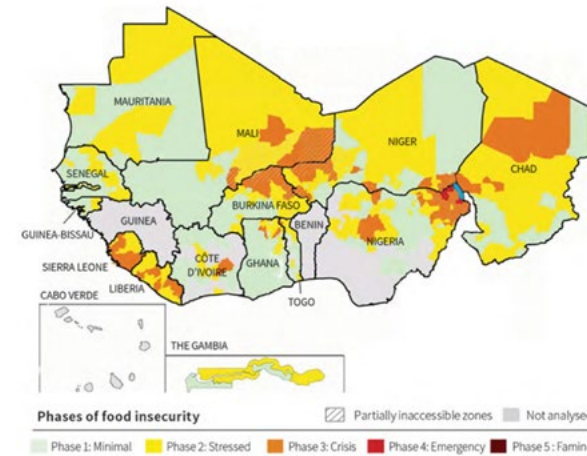
Social FOOD INSECURITY UNDERNOURISHMENT

TABLE 1.6 Undernourishment in Africa and West Africa, 2005–19

	Prevalence (%)					Number (million)				
	2005	2010	2015	2017	2019	2005	2010	2015	2017	2019
Africa	21.0	18.9	18.3	18.6	19.1	192.6	196.1	216.9	231.7	250.3
West Africa	13.8	12.1	14.3	14.6	15.2	36.9	37.0	50.3	54.2	59.4

Source: based on FAO 2020a

MAP ES.1 Acute Food Insecurity Across West Africa, March-May 2021



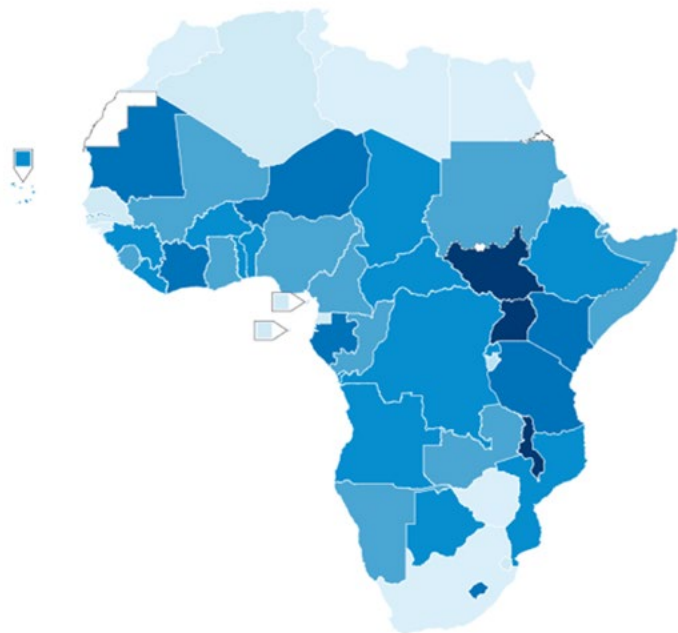
Source: RPCA 2021, based on Cadre harmonise analysis, regional concertation meeting, Ouagadougou, Burkina Faso, March 2021; map: © CILSS



Social URBANIZATION

Map 2.3

Urban population growth in Africa, 1950 - 2015



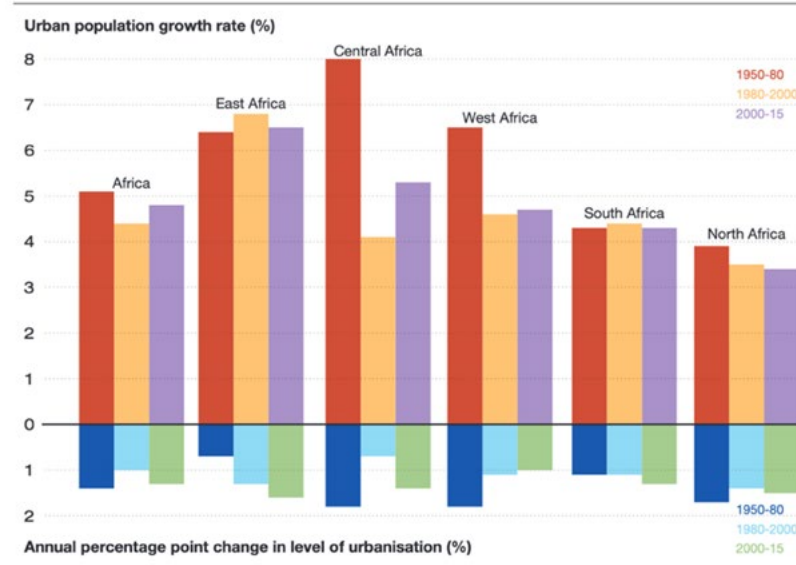
Average urban growth (%)
[Number of countries]

3-4	4-4.8	4.8-6	6-7	7-8	8-9.3
[8]	[5]	[13]	[12]	[8]	[4]

Sources: OECD/SWAC 2018, Africapolis (database); Geopolis 2018

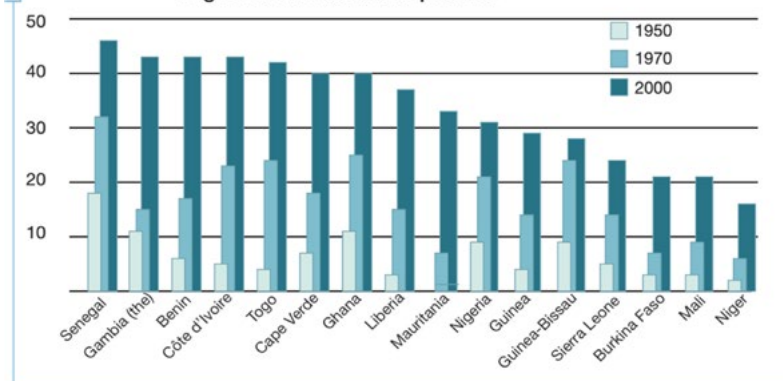
Figure 2.2

Urban population growth and growth in level of urbanisation in Africa by period, 1950-2015



Sources: OECD/SWAC 2018, Africapolis (database); Geopolis 2018

Degree of urbanisation in percent



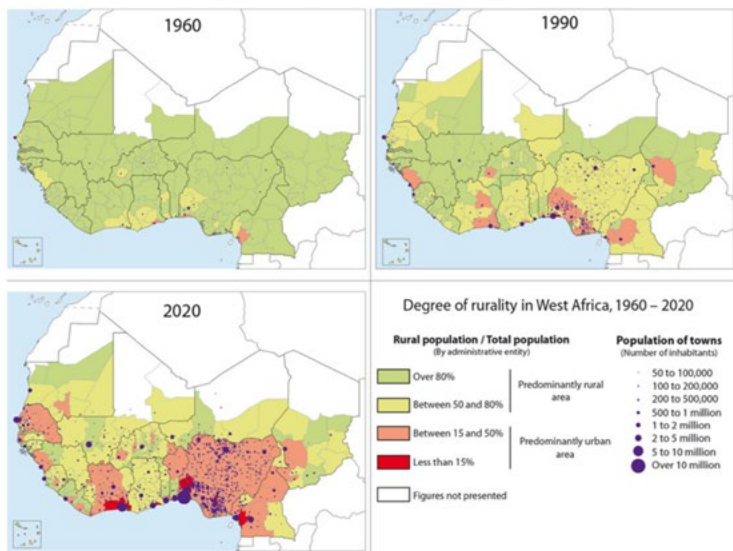
© Sahel and West Africa Club Secretariat (SWAC/OECD). 2011

Source: Africapolis 2009



Social RURALITY

DEGREE OF RURALITY IN WEST AFRICA

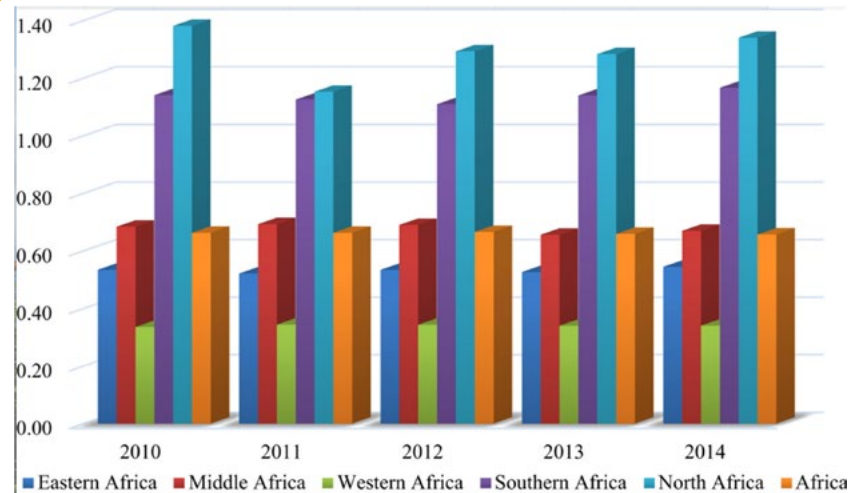


Source: Figures taken from the WALTIPS Study, Club du Sahel/OECD
 Extract: OECD/SWAC (2009), Regional Atlas on West Africa, OECD Publishing, Paris
 © 2007. Sahel and West Africa Club Secretariat (SWAC/OECD)

Source: © Sahel and West Africa Club Secretariat (SWAC/OECD)



Social ENERGY CONSUMPTION



I.K. Maji, C. Sulaiman and A.S. Abdul-Rahim / Energy Reports 5 (2019) 384–392

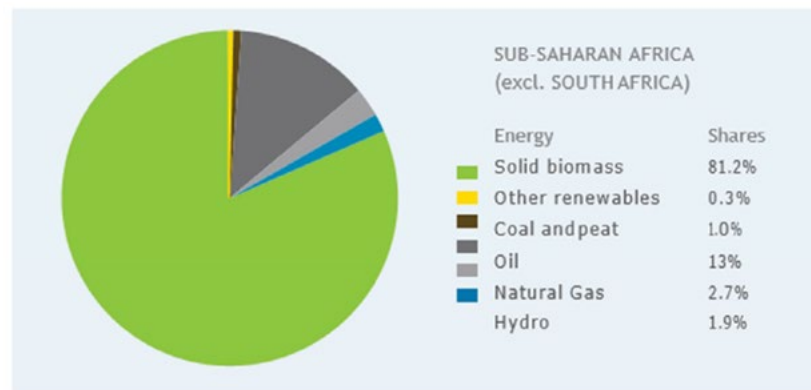


Fig. 1. The composition of energy in Sub-Saharan African Africa (excluding South Africa).
 Source: Stecher et al. (2013).



Social RENEWABLE ENERGY PROJECTS



Social UNEMPLOYMENT

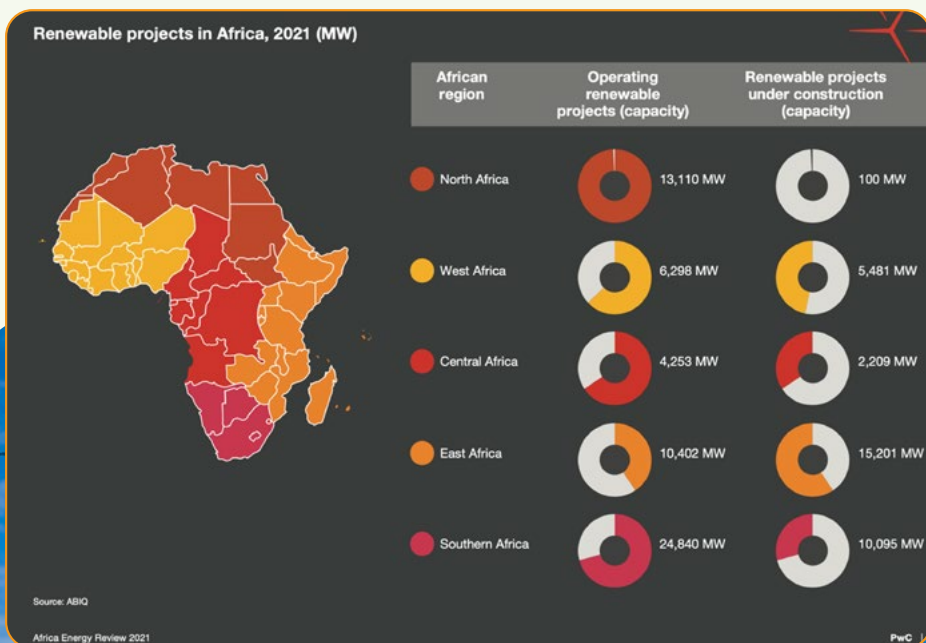


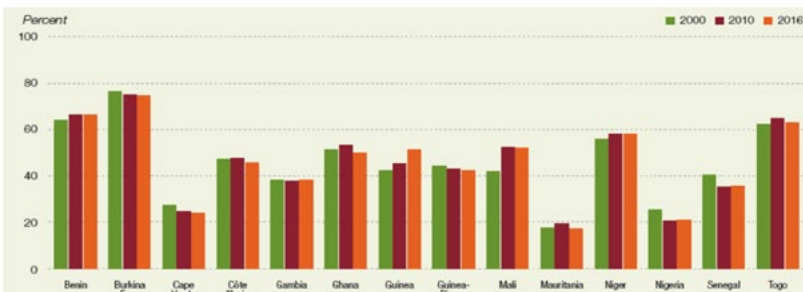
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Ghana	79.1	77.2	75.9	78.0	72.1	70.9
Guinea	67.3	66.4	66.2	65.8	66.2	66.3
Guinea-Bissau	63.3	63.9	63.2	62.6	61.9	61.3
Mali	89.4	87.5	88.2	86.9	85.8	85.3
Mauritania	56.9	53.9	53.3	52.3	50.9	48.9
Niger	93.4	93.1	92.9	93.0	92.8	92.4
Nigeria	51.4	50.3	46.1	44.6	43.4	42.0
Senegal	78.7	74.8	74.5	73.4	73.4	71.5
Togo	89.2	89.3	89.2	89.1	87.6	85.9

Source: ILOSTAT 2016 and AfDB statistics.

Note: Vulnerable jobs are self-employed workers and contributing family workers.

Figure 6: Vulnerable jobs in West Africa, 2000-2016



Source: ILOSTAT 2016 and AfDB statistics.

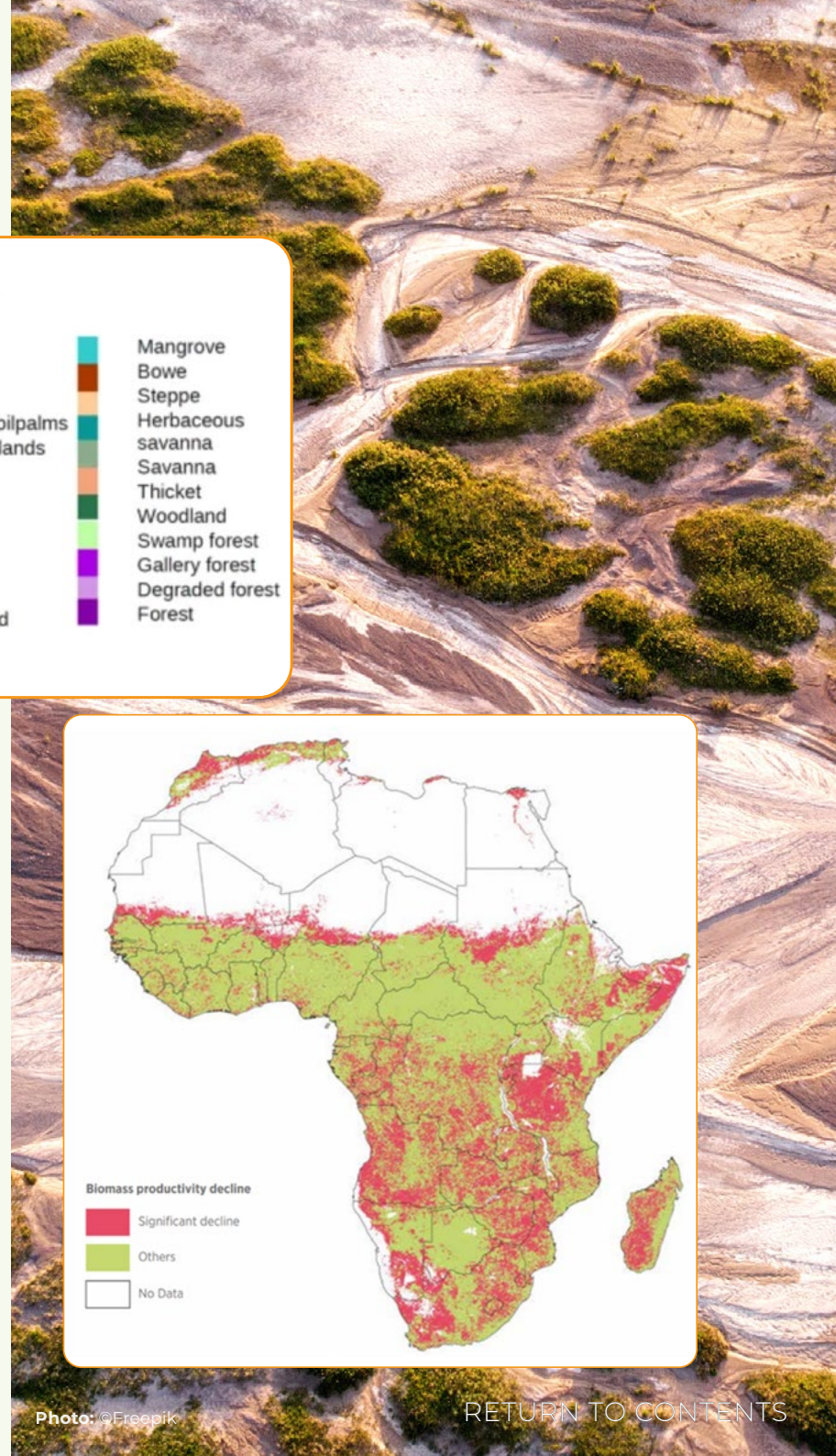
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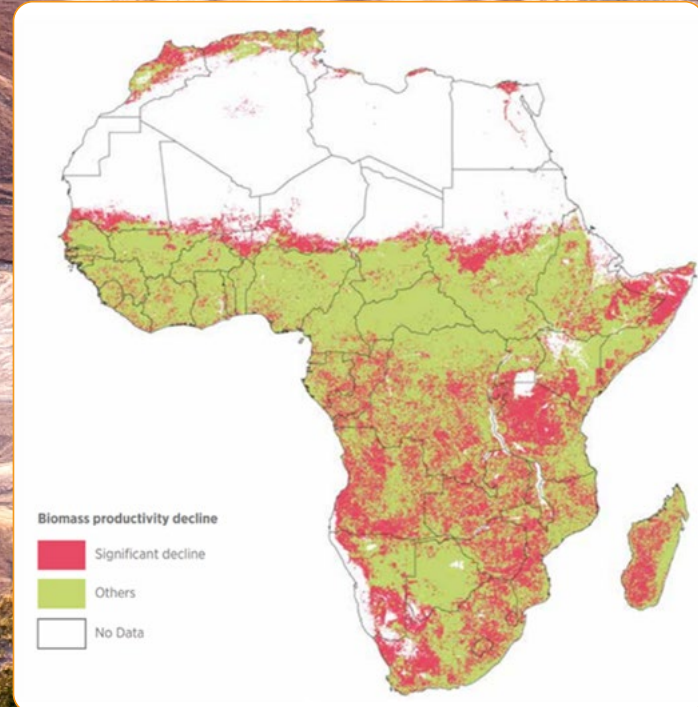
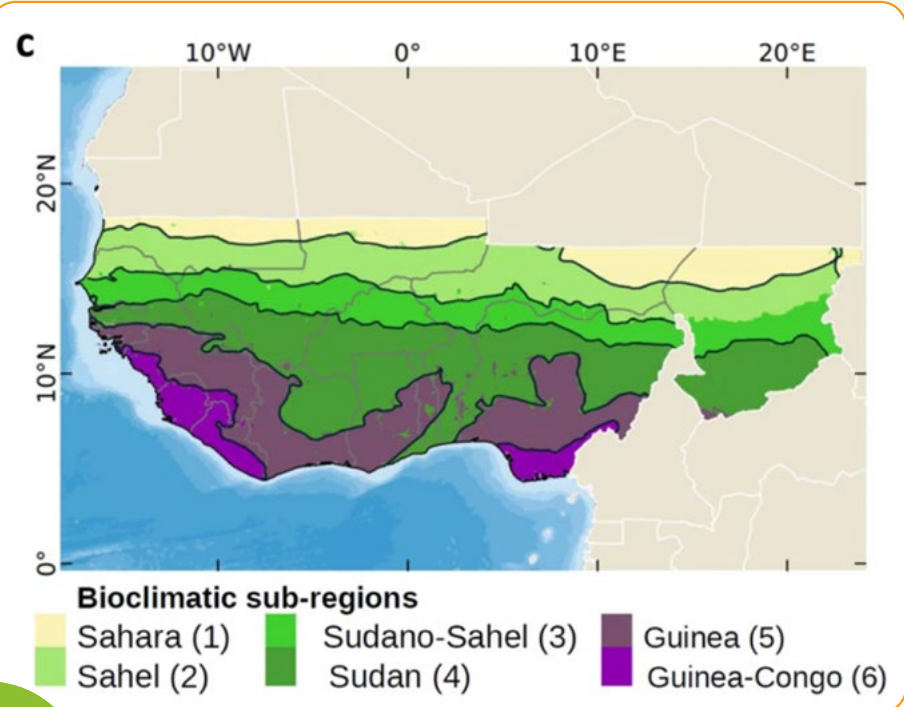
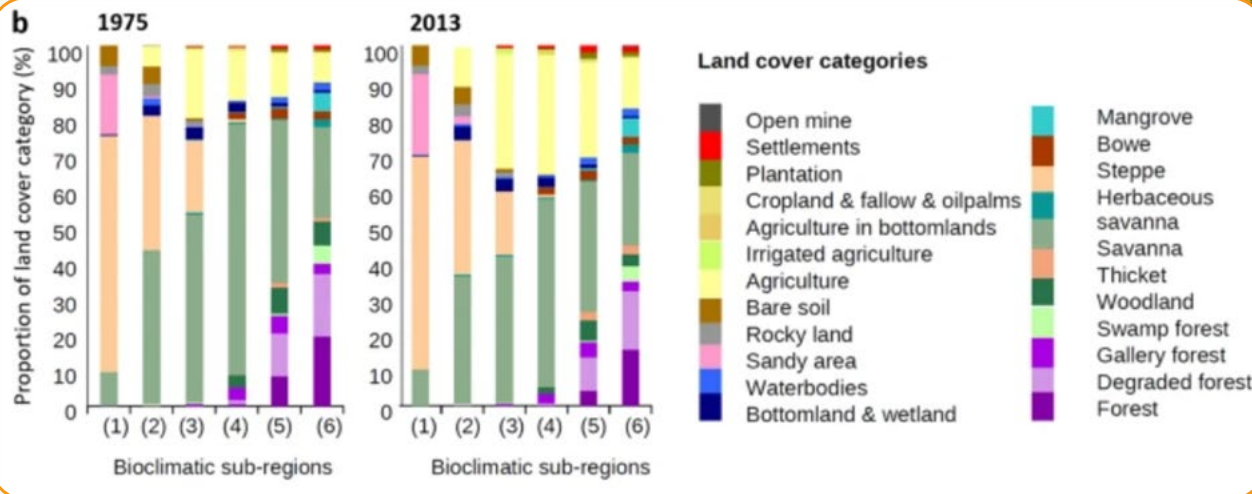
Photo: ©Adobe Stock



Ecological / Environmental LAND COVER AND DEGRADATION

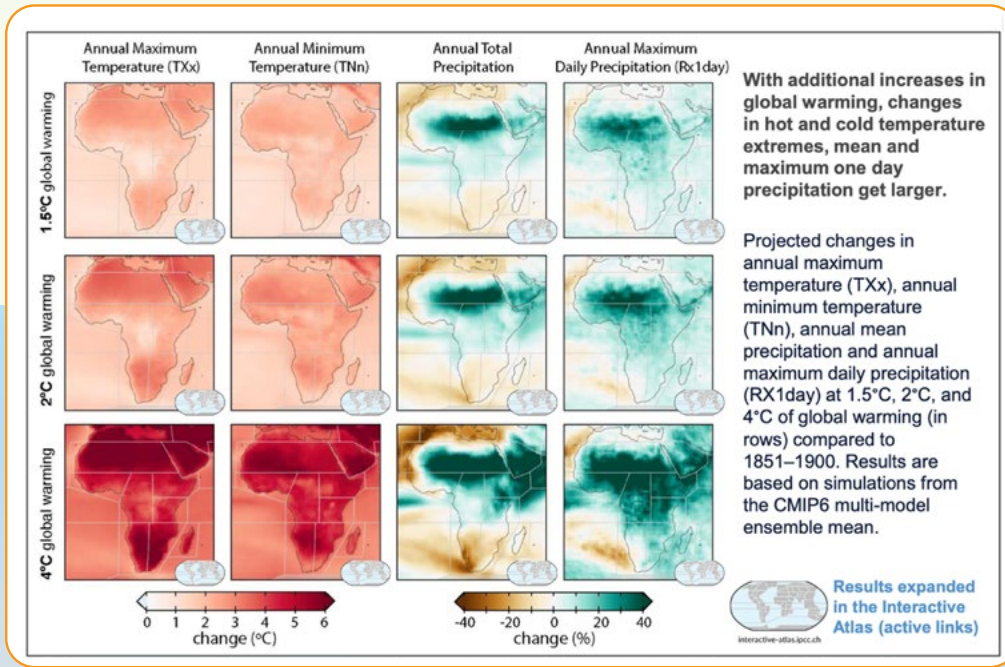


MODULE 02 Understanding Trends and Multi- sectoral and Systems Linkages





Ecological / Environmental CHANGES IN EXTREMES WITH PREDICTED CHANGES TEMPERATURE INCREASES



West Africa (WAF)

- **Observed** increase in river flooding;
- **Observed** increase in drying and agricultural and ecological droughts;
- Projected increase in meteorological droughts at GWL 4°, mostly in seasonal timescales;
- **Projected** increases in mean wind speed; increase in heavy precipitation and pluvial flooding.

Central Africa (CAF)

- **Observed** decreases in mean precipitation;
- **Observed** decrease in standardized precipitation index (i.e deficit of precipitation);
- **Observed** increase in agricultural and ecological droughts;
- **Projected** increases in heavy precipitation and pluvial flooding;
- increases in river flooding.

Sahara including parts of the Sahel (SAH)

- **Projected** increases in heavy precipitation and pluvial flooding.



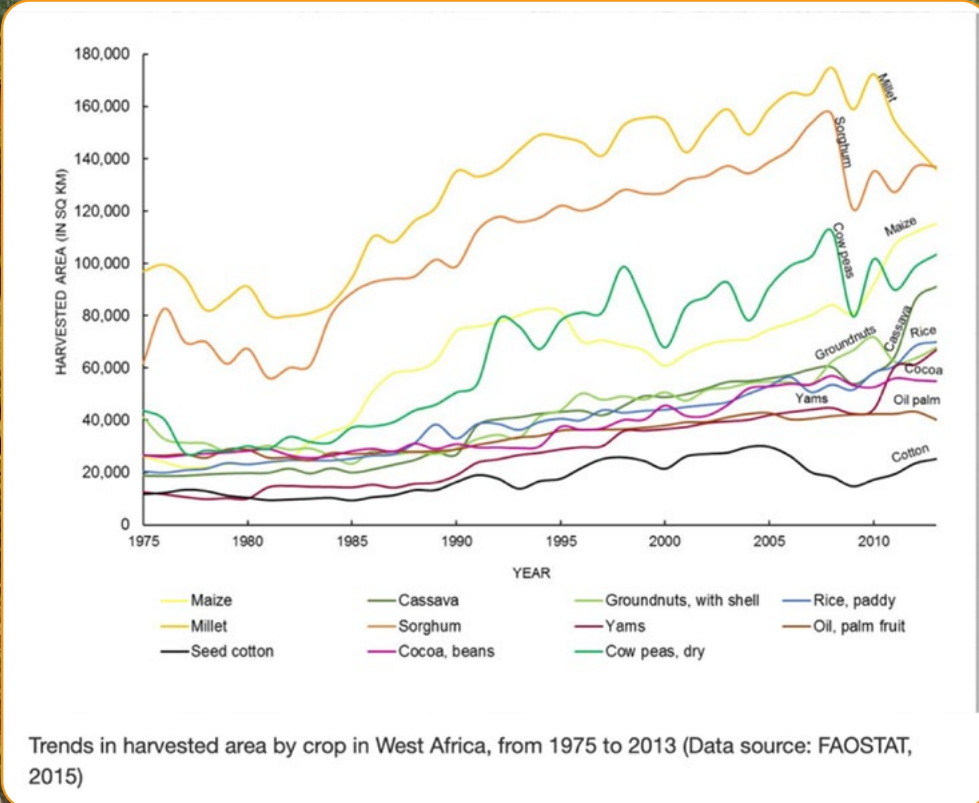
East Southern Africa (ESA)

- **Observed** decreases in mean precipitation;
- **Observed** and **projected** increases in heavy precipitation and pluvial flooding;
- **Observed** and **projected** increases in river flooding;
- **Observed** and **projected** increases in meteorological droughts;



Ecological / Environmental

AGRICULTURAL EXPANSION AND CROP YIELDS



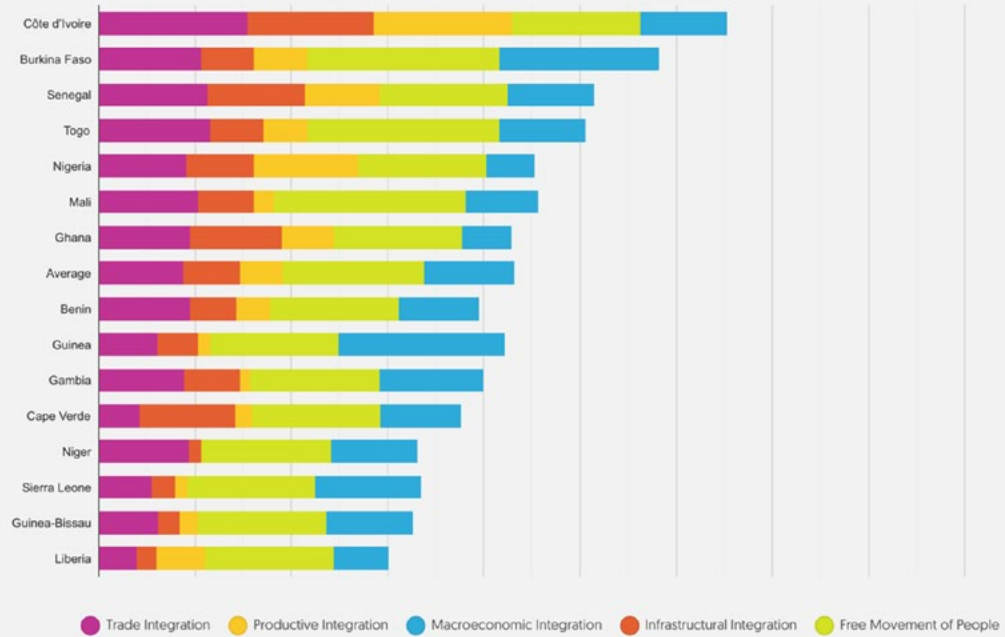
MODULE 02
Understanding Trends and Multi-sectoral and Systems Linkages



Political EFFECTIVENESS OF REGIONAL INTEGRATION

ECOWAS Members' Performance by Dimension

This chart shows how each country in ECOWAS performs on the five dimensions of regional integration. Click the inner segments of the bars to see each country's score.



MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

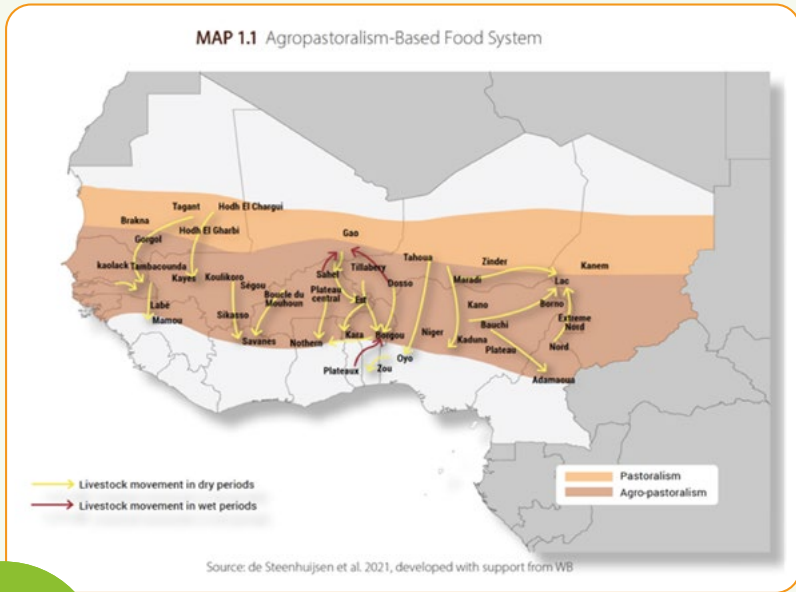
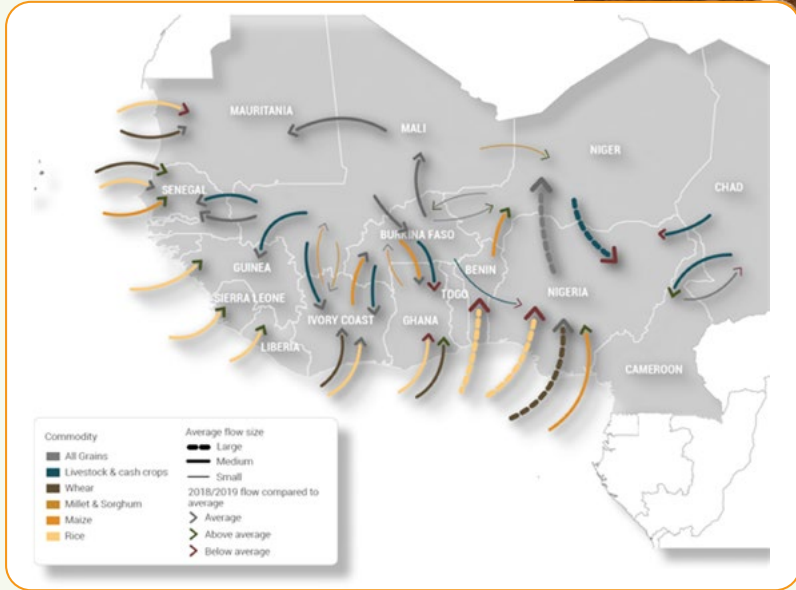




LIVESTOCK AND COMMODITY MOVEMENTS



Photo: ©Apollo Habtamu (ILRI)



LEARNING EXERCISE



Analyzing trends

In this exercise we will consider one mega-trend in the ECOWAS region and will practice using trend questions.

Learning

Using the three key horizon scanning questions you should now be able to **interpret information obtained from trends analysis and horizon scanning activities** and identify where there may be gaps.



INTERPRETATION

SYSTEMS MAPPING AND MULTI-SECTORAL, MULTI-STAKEHOLDER LINKAGES



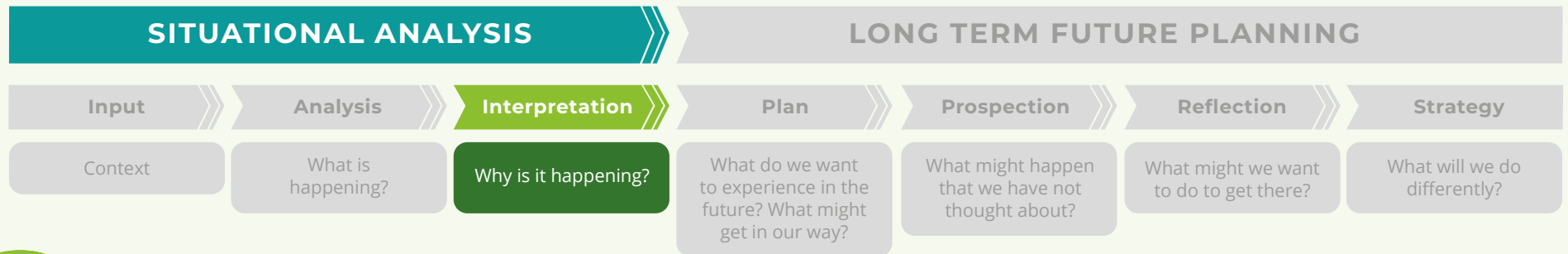
QUESTION?

The interpretation stage follows on from the analysis stage. This is where foresight differs from strategic planning, here we include a 'pause' to understand why something is happening?



FORESIGHT KEY FRAMEWORK STAGES

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





INTERPRETATION



Systems mapping



Cross sectoral and multi-stakeholder approaches

SYSTEM MAPPING

What is it

Systems mapping provides a visual way of exploring the system, its elements, connections and complexity.

Why we use it

Mapping systems can be used as a basis for understanding stakeholders and their relationships, issues, and the influence of trends.

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



REFLECTIONS AND GUIDING QUESTIONS

Why do we do systems mapping in foresight?

Systems mapping allows us to look at the elements, actors, relationships of system and, as importantly.

Serves in getting stakeholders to share their insights, potentially divergent perspectives, and interact and dialogue as the map is developed.

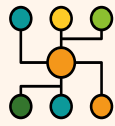
Who does the systems mapping?

As much as possible stakeholder representatives within the system of focus should be involved in mapping.





KEY TERMS



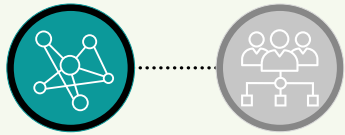
A **system** is an interconnected set of elements that is coherently organized in a way that achieves something (function and purpose).



A **systems view** understands life as networks of relationships.



Systems thinking is a (1) mindset, (2) tool, and (3) process that is reserved for complex problems.



SYSTEMS MAPPING

Key Steps



Consider which system is relevant to the scope



Visualize the system and understand stakeholders



Identify the drivers that are influencing the system



Build multi-stakeholder and cross-sectoral relationships

“

Disruptive change most often comes from outside the system. No matter how narrow the focus of the foresight study, it is important to look at changes that may come from outside the immediate system.

”

SYSTEMS THINKING

Enables us to:



Change our thinking to match the interconnected, dynamic complexity of our communities and their environments and their environments.



Identify and test a wider variety of **possible actions and solution pathways**.



Become more aware of the potential for unintended consequences of our actions.



Communicate with others to create new ways of thinking and seeing – and develop shared understanding.



Harness **social learning** processes to help us develop a shared understanding and take action collectively.

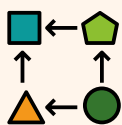



Change our behavior to work with the complex forces in the system (instead of against them) to realize our vision.




Expand the choices available to us and identify those choices where we can **develop significant leverage**.

KEY TERMS


 **Elements** - the different, discrete elements within the system. (farms, organizations, inputs, soil, etc.)


 **Interconnections** - these are the relationships that connect the elements (rules, ideas, funding or service relationships, among others)


 **Function and purpose** - the purpose of the system is around the outcomes the system is meant to achieve (food security outcomes, increased livelihood streams)

SYSTEMS THINKING

Key Steps

 Consider which system is relevant to the scope

 Diagram the system

 Consider the stakeholders that need to be involved



LEARNING EXERCISE

Using the above definition of a system, think of a school, what elements does it consist of and how are they connected? What is the purpose of the system? Using different coloured pens and a large piece of paper, map the elements of a school system and their relationships. Does your map look similar to the example on the right?

Systems mapping is carried out following four key steps:

Key Steps for Systems Mapping

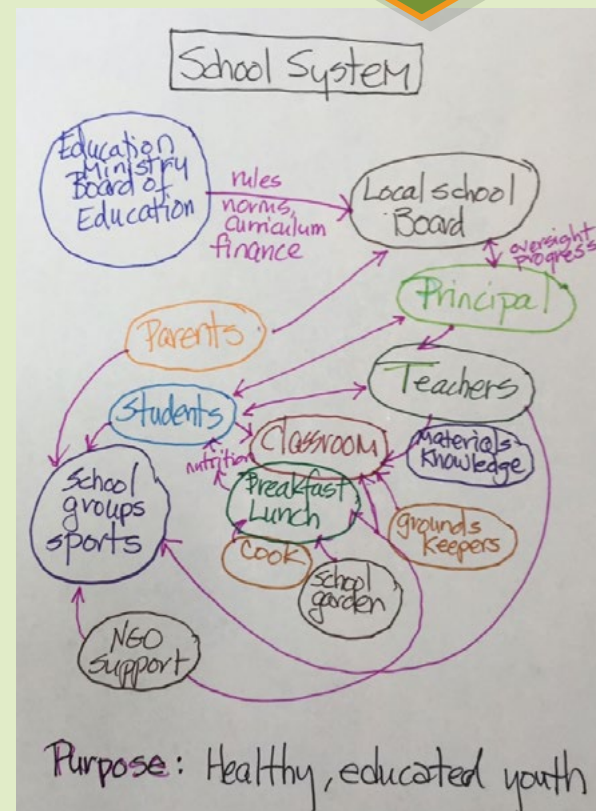
- Consider which system is relevant to the scope;
- Visualise the system and understand the stakeholders;
- Identify the drivers that are influencing the system; and
- Build multi-stakeholder and cross-sectoral relationships.

Key terms related to a systems map include:

Elements - the different, discrete elements within the system (e.g. farms, organisations, inputs, and soil).

Interconnections - these are the relationships that connect the elements (e.g. rules, ideas, funding or service relationships, among others).

Function and purpose - the purpose of the system is around the outcomes the system is meant to achieve (e.g. food security outcomes and increased livelihood streams).

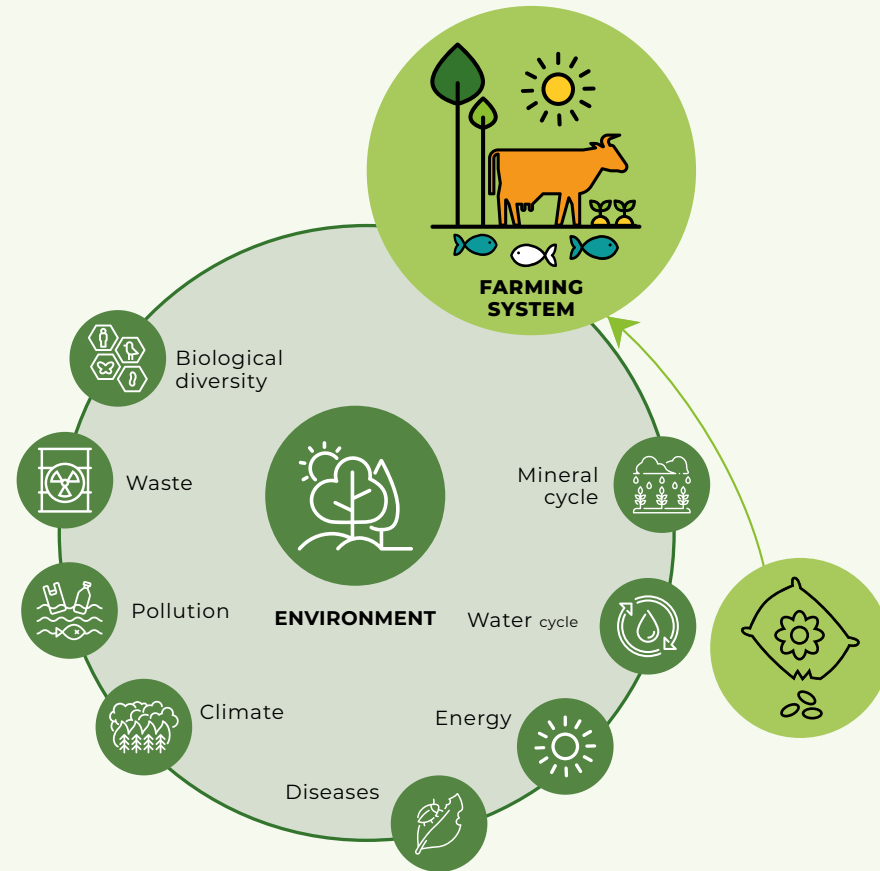


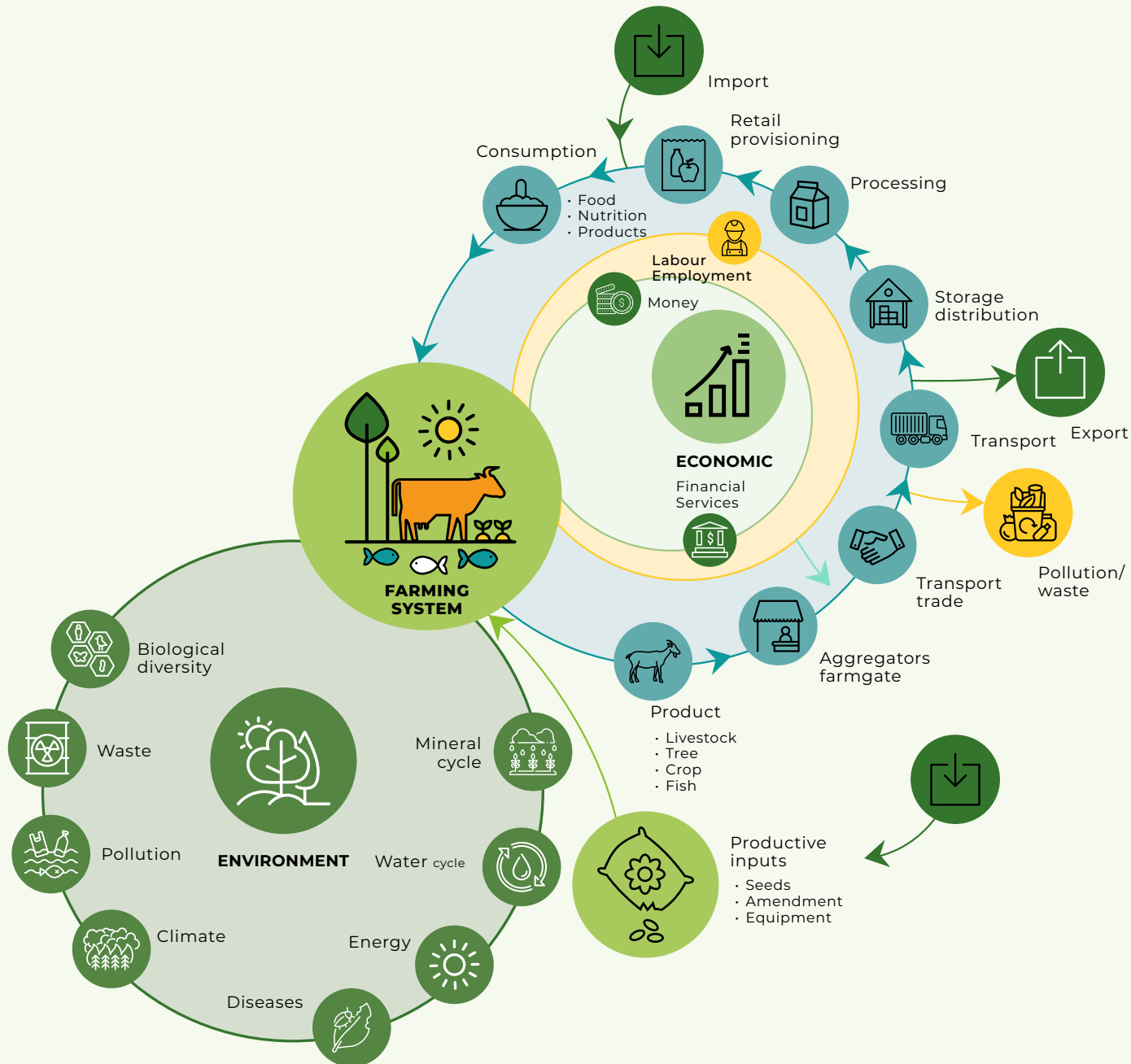


Using the scope method, we unpacked agri-food systems. The core agricultural theme was found to be complex, constituting numerous different elements such as production systems, employment, and food storage. Furthermore, the agri-food systems sit within and amongst other ecological, social, political, and economic systems. These interconnected systems and sectors affect outcomes such as production and food security in the region.



AGRI-FOOD SYSTEMS

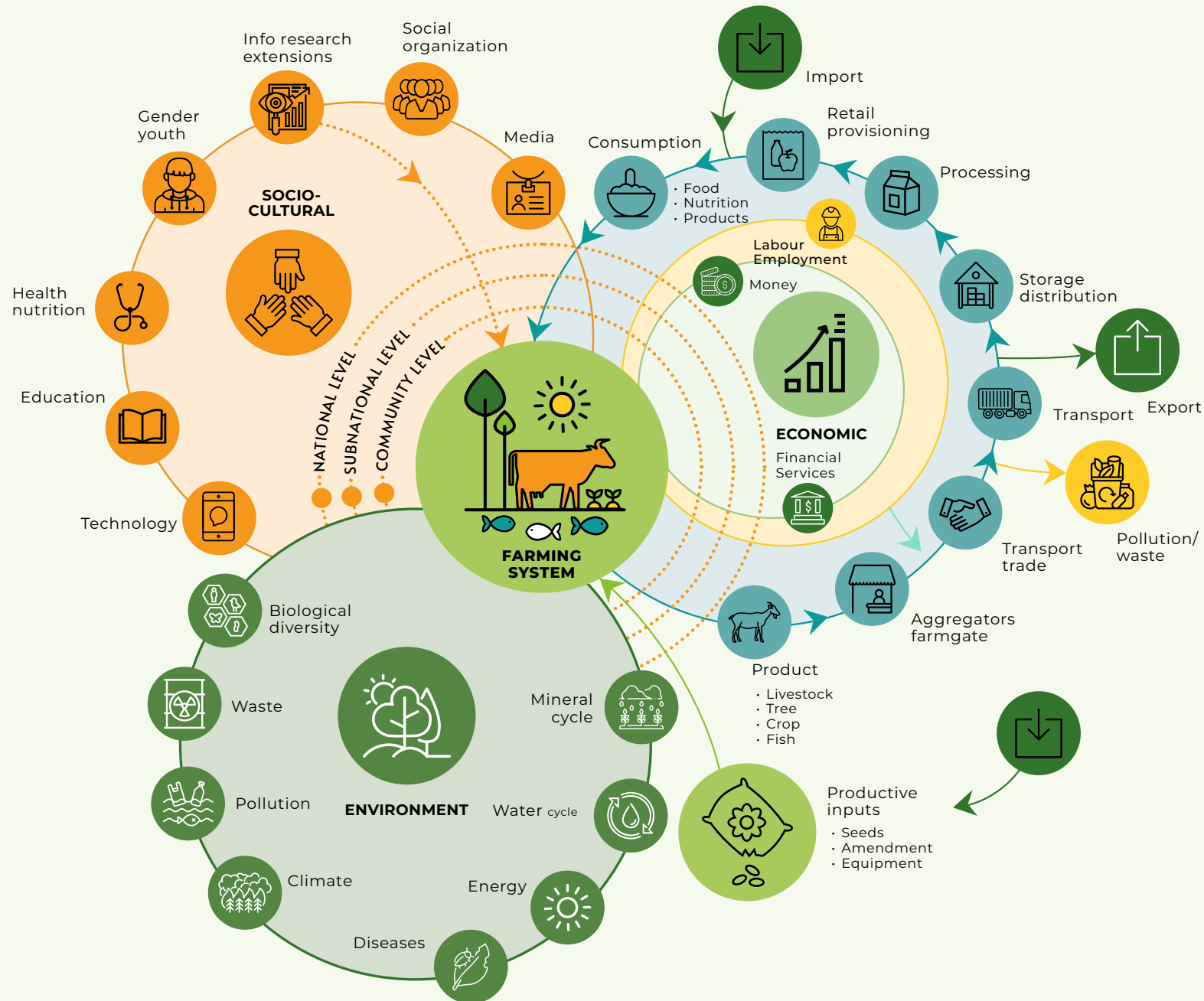




MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

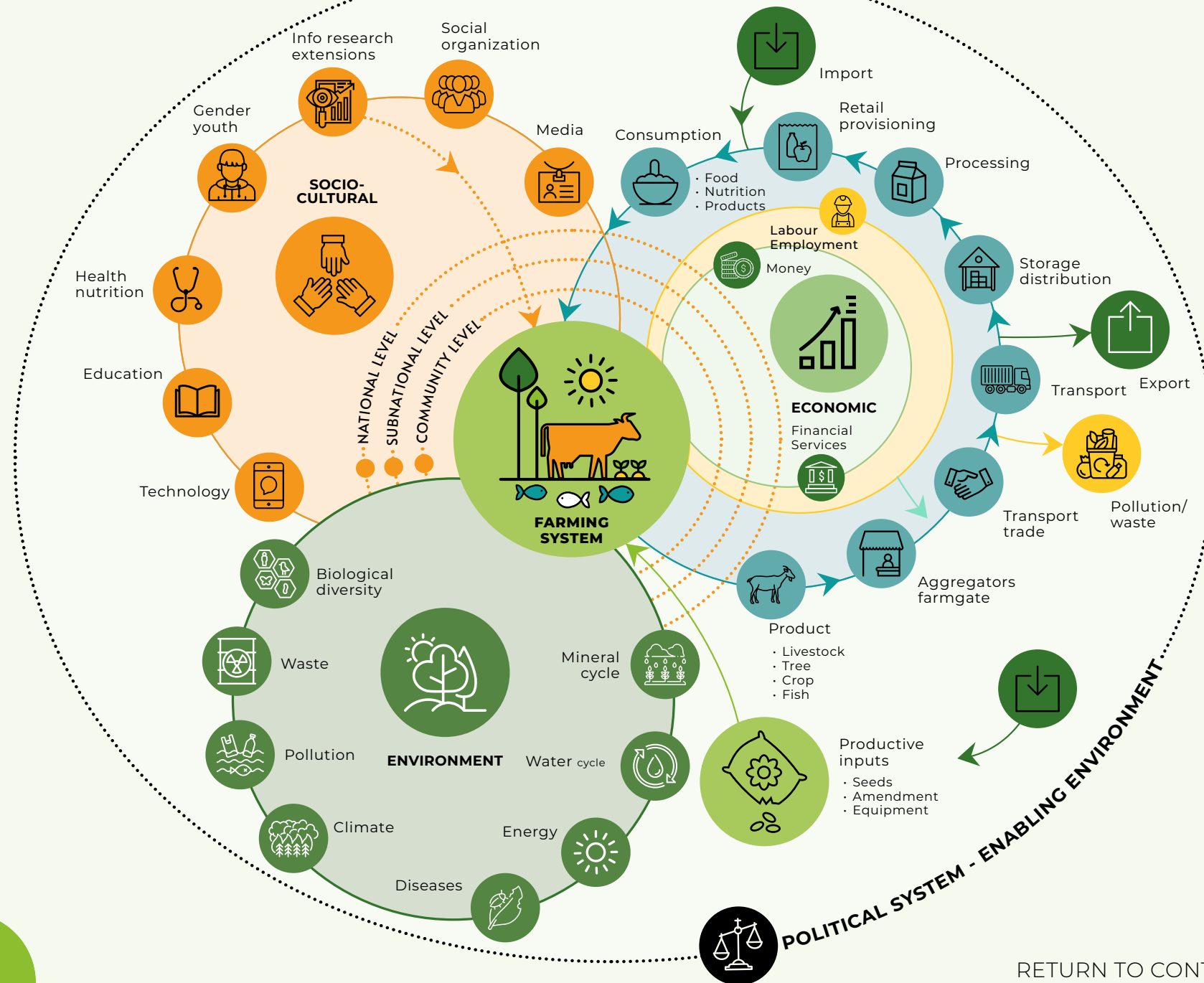
AGRI-FOOD SYSTEMS



MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

AGRI-FOOD SYSTEMS



MODULE 02

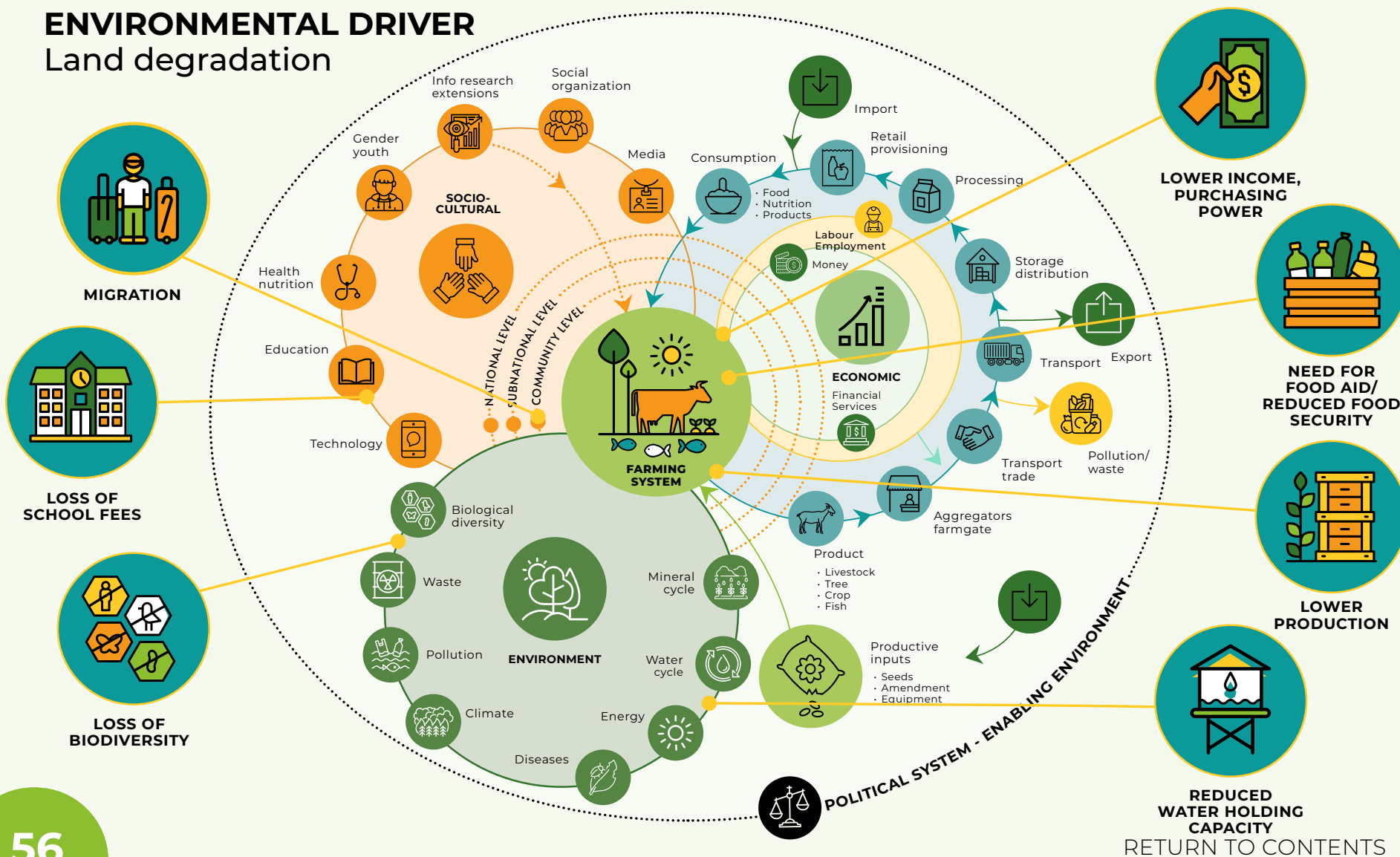
Understanding Trends and Multi-sectoral and Systems Linkages

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Once the systems map and drivers are complete it is important to **consider the drivers carefully and understand their implications**. For example, the driver ‘land degradation’ could result in negative outcomes such as lower income, reduced food security, lower production, reduced water holding capacity, migration, loss of school fees, and loss of biodiversity. See the diagram below for the possible outcomes of land degradation and how to map them.

”

ENVIRONMENTAL DRIVER Land degradation



FARMING SYSTEM

FARM HOUSEHOLDER CHARACTERISTIC LOCATION, FAMILY COMPOSITION (AGE, GENDER), FARM AND FIELD SIZE HERD SIZE, CROP/LIVESTOCK/FISH/TREE SYSTEM, SYSTEM COMPONENTS AND ACTIVITIES



MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages



photo: ©Eka Sariwati (unsplash)

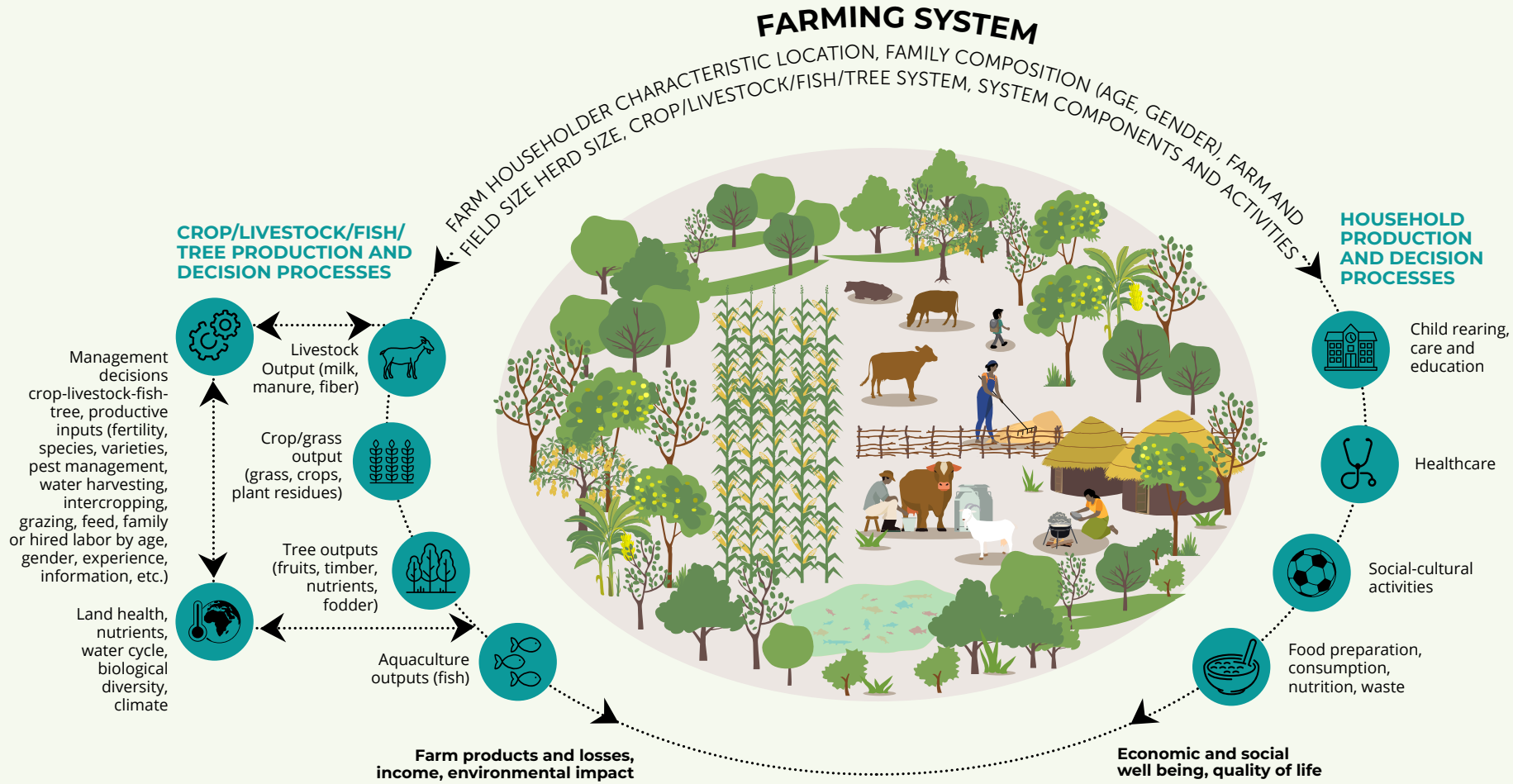
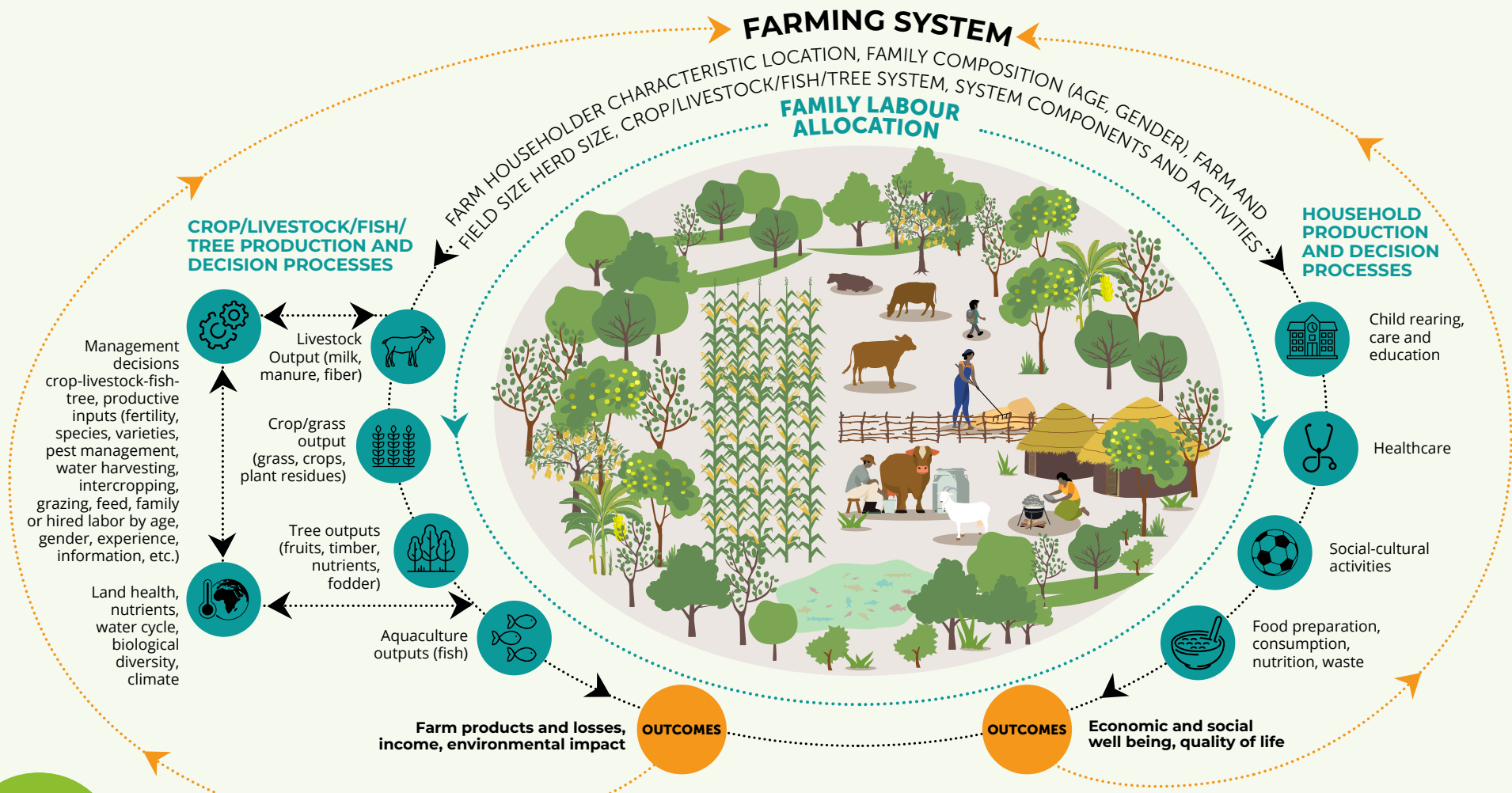




Photo: ©Duang Phorn (Unsplash)

MODULE 02
 Understanding Trends and Multi-
 sectoral and Systems Linkages



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Food System – A food system is a **complex web of activities** involving the production, processing, transport, and consumption – **connecting people to their food**. Issues concerning the food system include the **governance and economics of food production, its sustainability**, the degree to which we waste food, how **food production affects the natural environment** and the impact of food on individual and population **health**.

FAO; Schipanski et al., 2016



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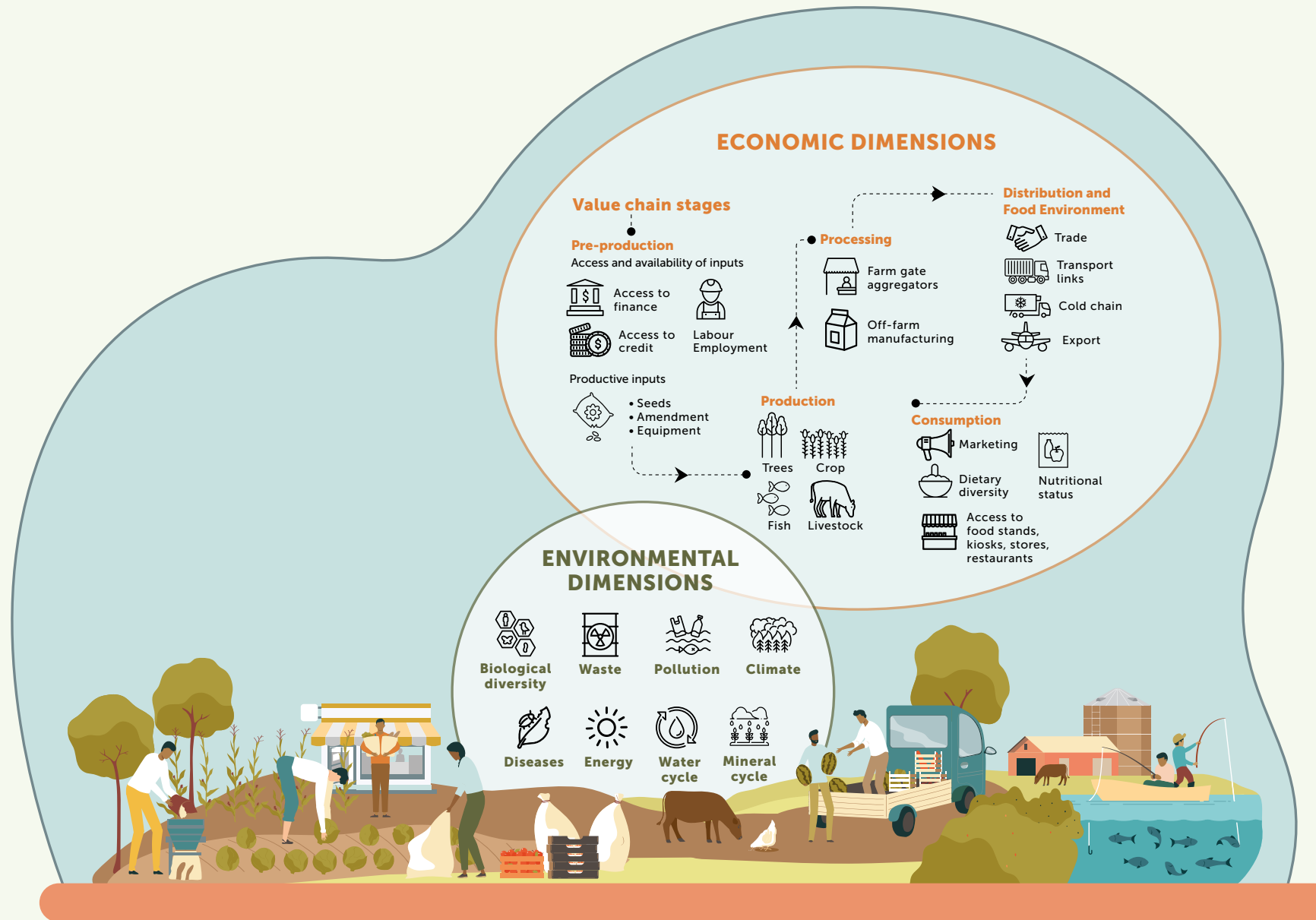
DIMENSIONS AND DRIVERS OF A FOOD SYSTEM



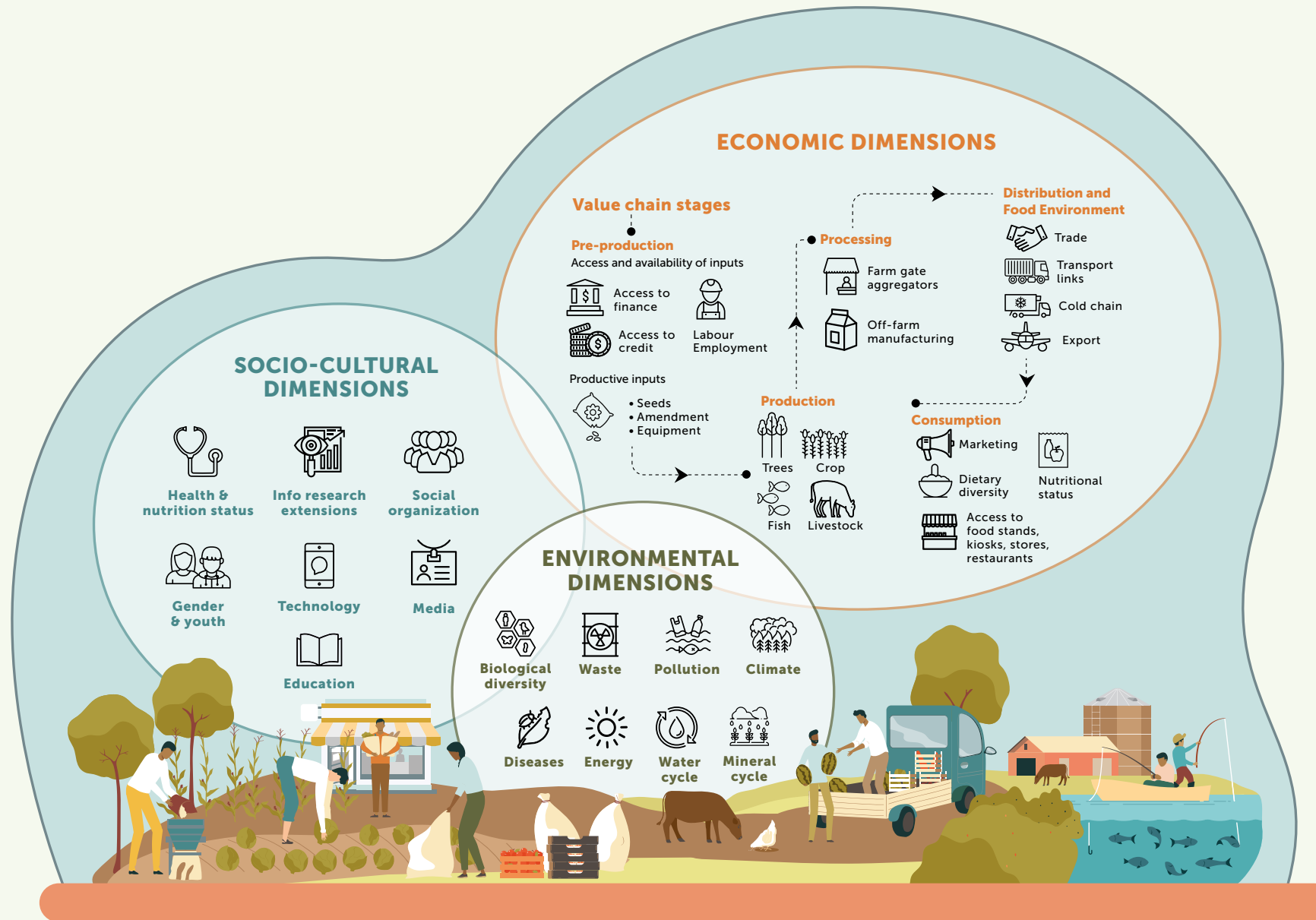
MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

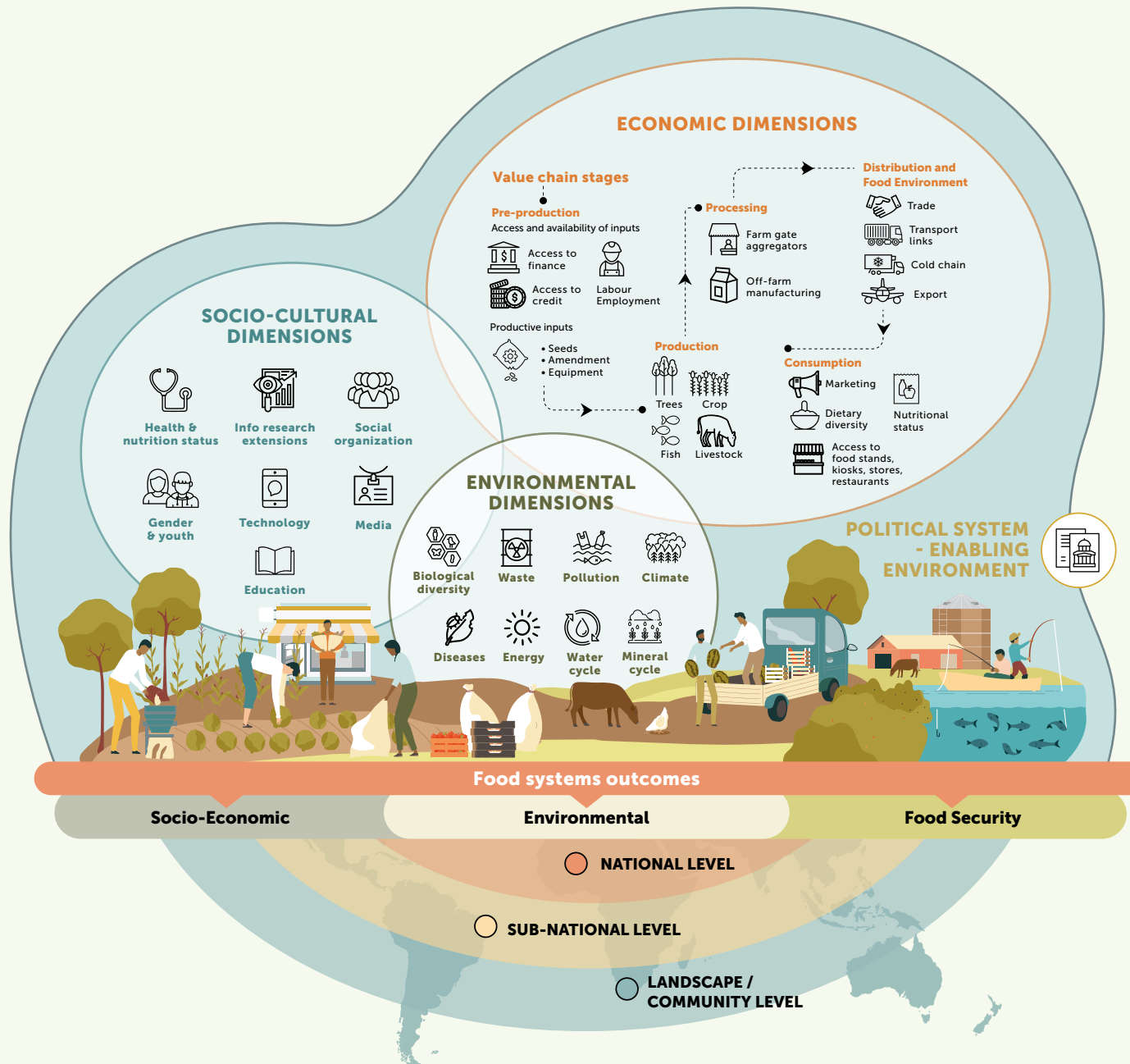
DIMENSIONS AND DRIVERS OF A FOOD SYSTEM



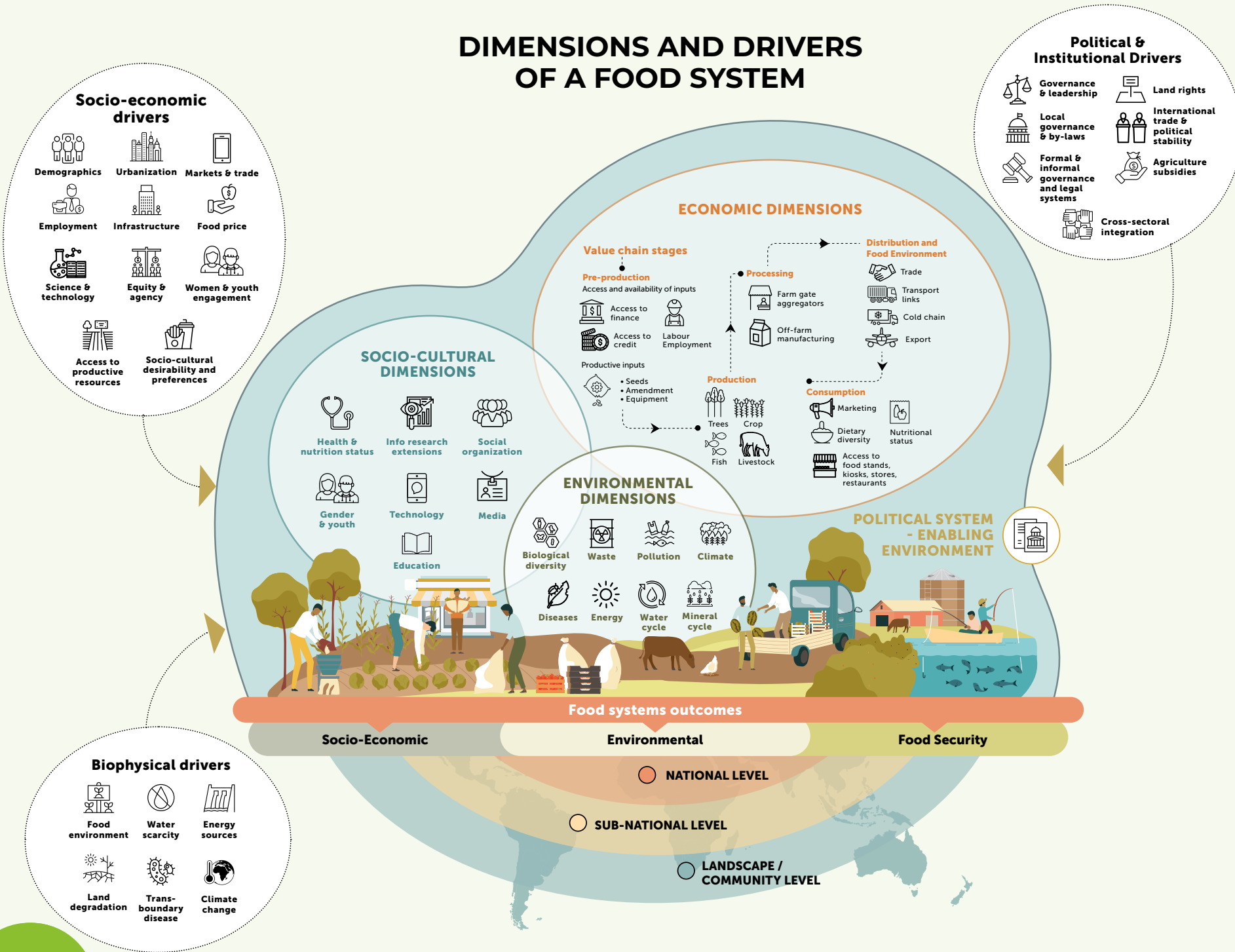
DIMENSIONS AND DRIVERS OF A FOOD SYSTEM



DIMENSIONS AND DRIVERS OF A FOOD SYSTEM



DIMENSIONS AND DRIVERS OF A FOOD SYSTEM





IMPACTS OF CLIMATE CHANGE ON THE FOOD SYSTEM

CONSUMPTION



SUPPLY CHAIN



Other key stressors include:

- Food loss & waste
- Health risks
- Production & price volatility

Other key stressors include:

- Transport
- Cold chains
- Water, energy availability



MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages



Photo: ©Shutterstock



REFLECTIONS

It is important that the stakeholders within the system and those that influence the system are involved in the mapping.

The conversations around the maps are as important as the maps themselves.



LEARNING EXERCISE



Starting to build a system map for pest and disease:

- Environmental dimensions
- Socio-cultural dimensions
- Economic dimensions
- Geo-political

[RETURN TO CONTENTS](#)



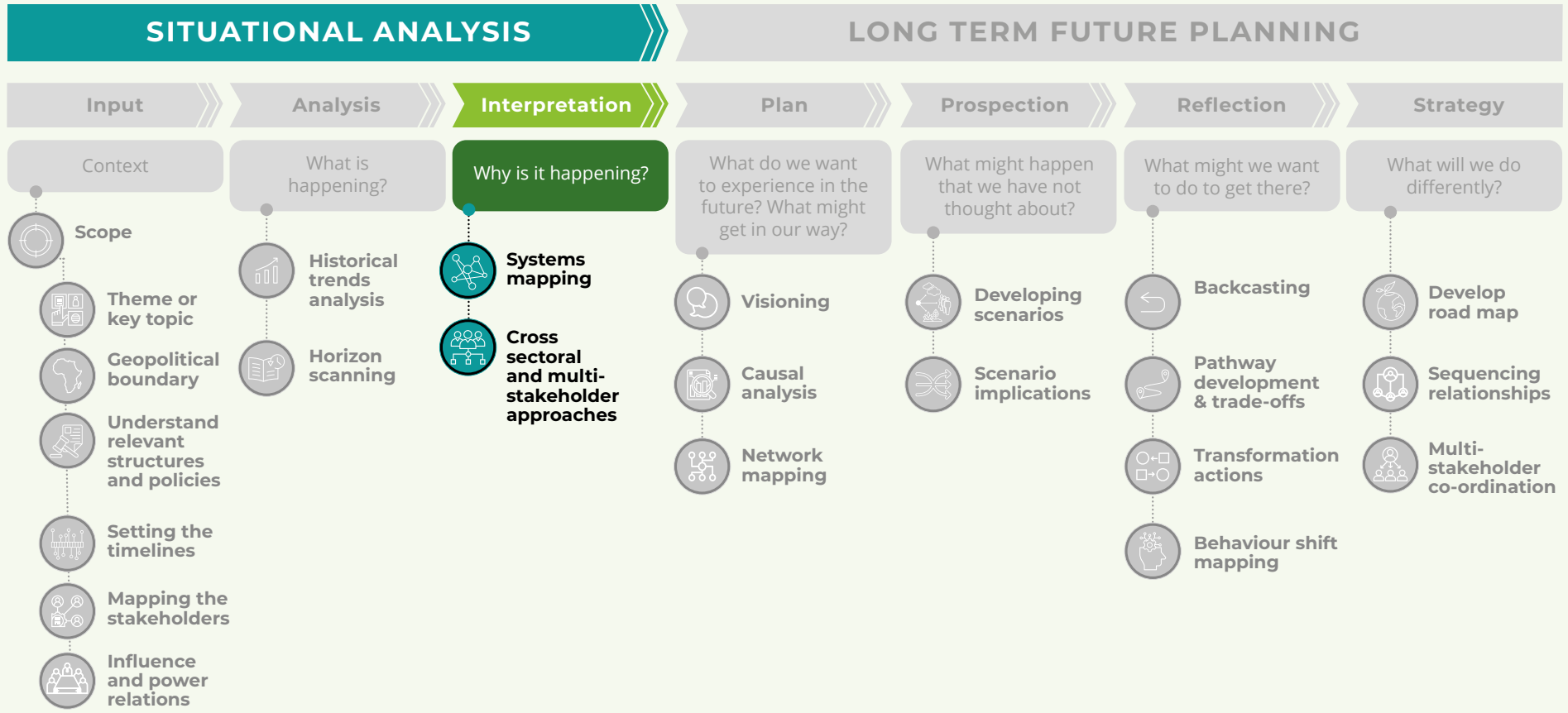
FORESIGHT KEY FRAMEWORK STAGES



DATA, EVIDENCE, KNOWLEDGE AND CREATIVITY



STAKEHOLDER ENGAGEMENT AND PARTICIPATION





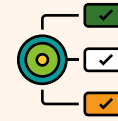
In defining the scope, you identified and listed stakeholders relevant to your theme. You drew a basic stakeholder map showing the relationships between key stakeholders. Use this work as a base for carrying out the steps that follow.

KEY TERMS



Multi-Stakeholder Collaboration

consists of a mix of representatives or stakeholders from public, civil and private domains of society.



Cross Sectoral Coordination

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).

CONNECTED SECTORS WORKING ON CLIMATE CHANGE



Example from
BOTSWANA

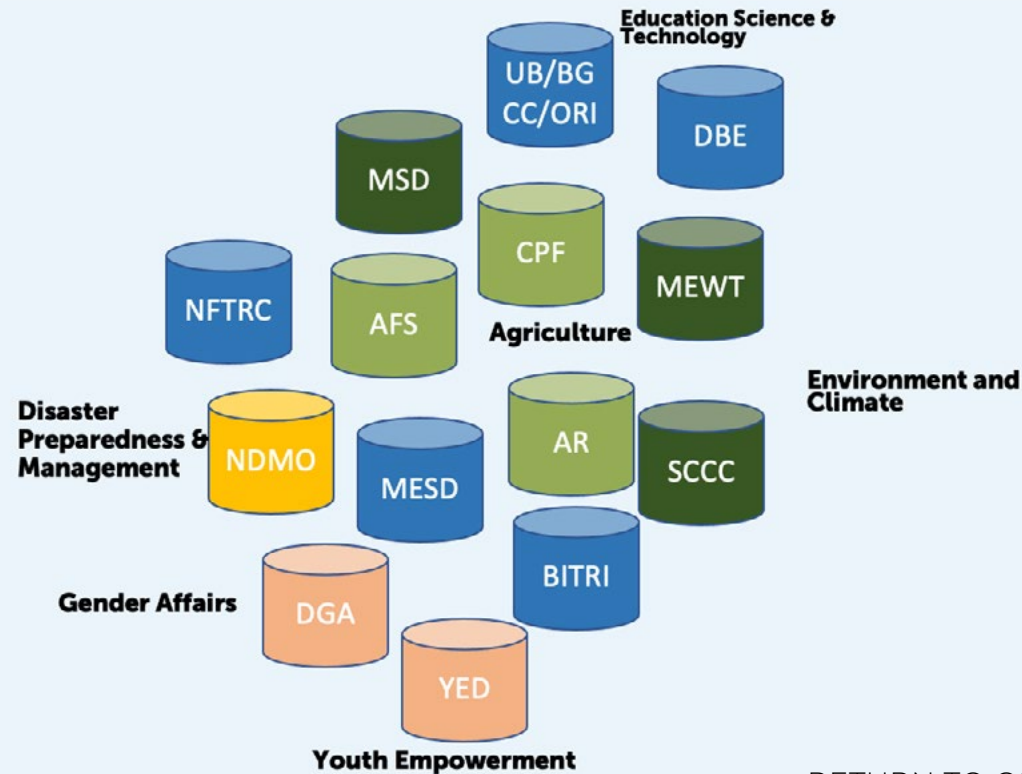
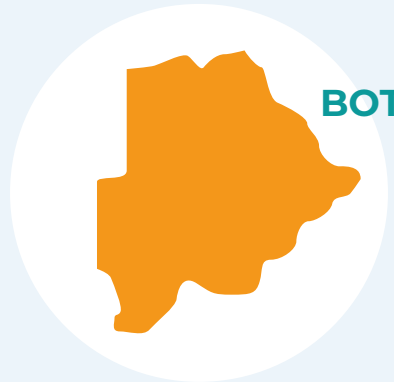




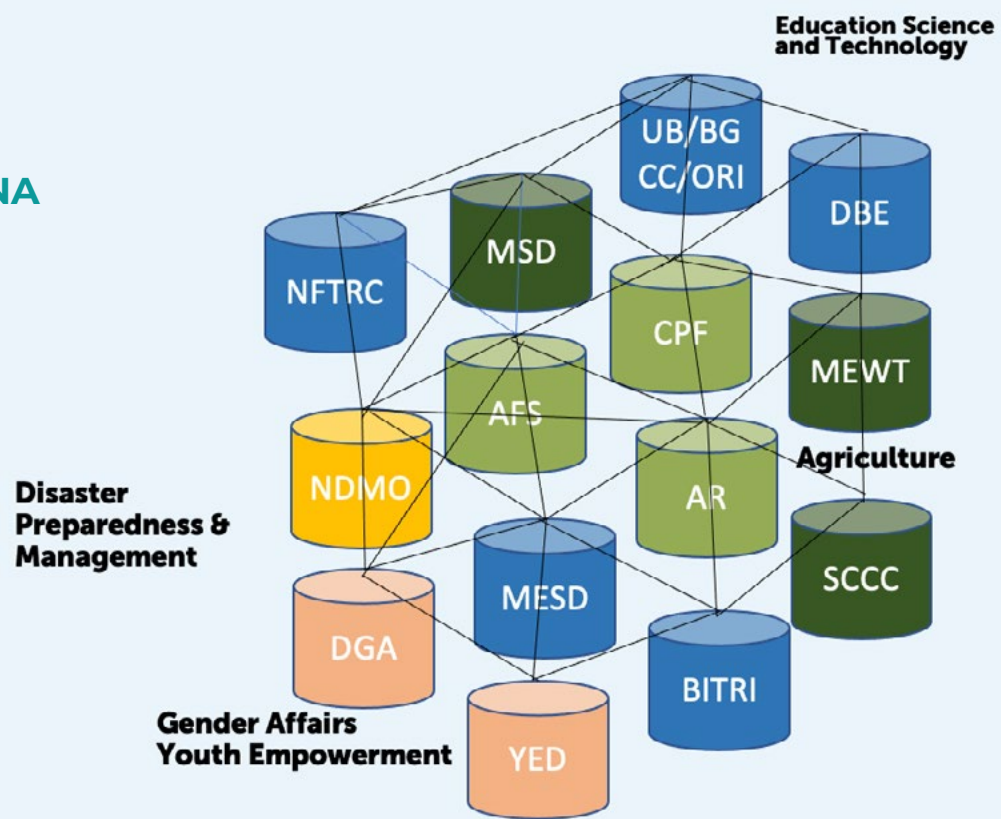
Photo: ©Freepik



CONNECTED SECTORS WORKING ON CLIMATE CHANGE



BOTSWANA





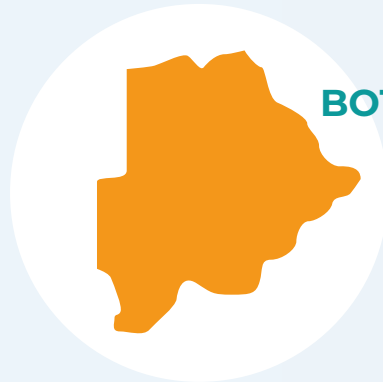
MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages

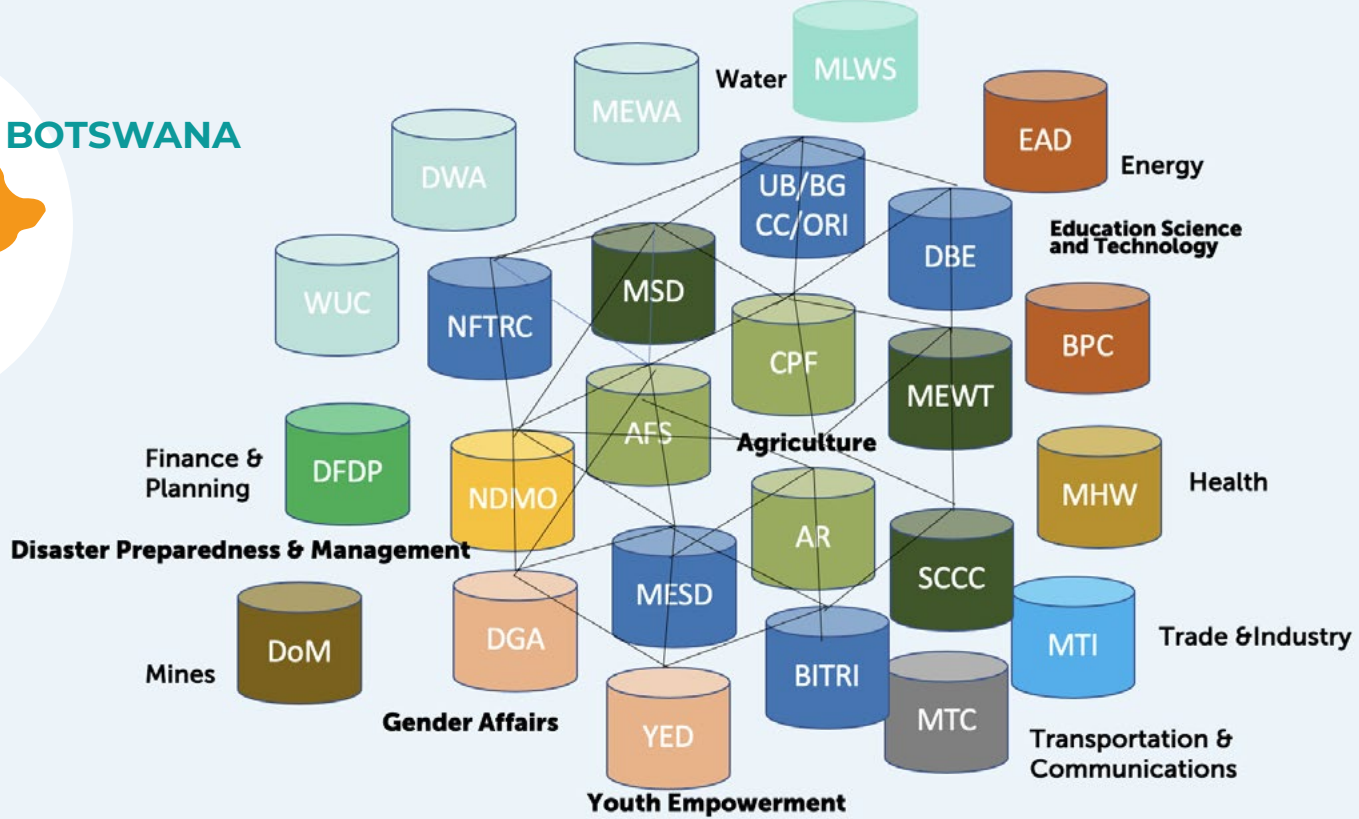


Photo: ©Adobe Stock

CONNECTED SECTORS WORKING ON CLIMATE CHANGE



BOTSWANA



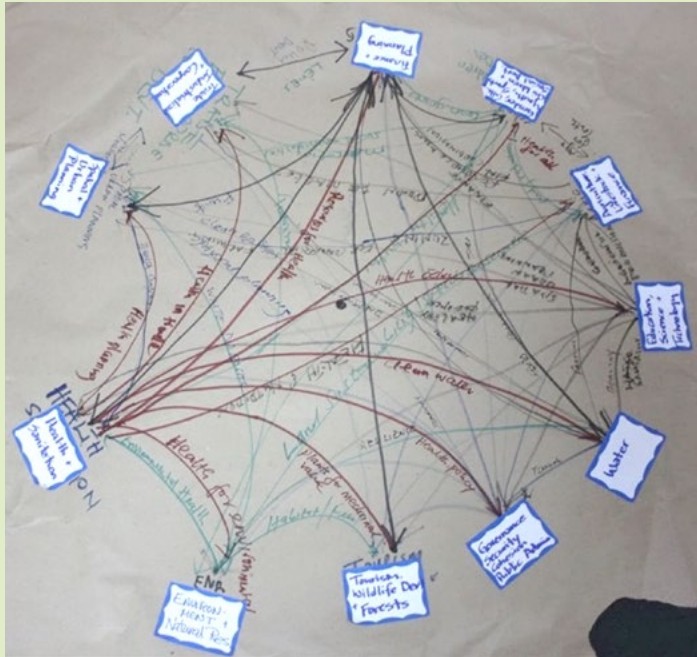


LEARNING EXERCISE



Getting sectors to map their relationships

What are we getting and what are we giving?



In an ideal situation you would include stakeholders from all sectors, and they would have a systems view. They would focus on their respective area but understand, respect, and interact with the other stakeholders. The outcome of this would be the ability to talk freely about what stakeholders give and what they get from each other i.e. the different sectors, ministries, and departments, within the given theme.

In summary, **building relationships throughout the foresight exercise is important for enhancing cross-sectoral coordination and stakeholder collaboration** for strategy development and implementation. The end products are transformative strategies for development which are much more inclusive.



QUESTIONS & ANSWERS

How can we use systems mapping to better understand climate risk?

The IPCC framework shows the interaction between socio-cultural and environmental processes. This highlights the need for a multi-stakeholder and cross-sectoral approach. Specialists can gather data for in depth assessments within their areas of expertise and bring the evidence to the table for discussion with people from different backgrounds and with different perspectives. They can use systems mapping to identify areas that have not been thought of.

Systems mapping can also be useful in understanding:

- How different stakeholders perceive how the system functions;
- Where knowledge about the system is underdeveloped;
- What evidence is available; and
- What will happen if we intervene in one aspect of the system i.e. what repercussions will the actions have on other areas of the system.



You should now understand the **importance of multi-stakeholder and cross-sectoral relationship building and engagement in foresight planning**. You know that a systems' understanding among stakeholders is the first step to creating meaningful change in the system and for developing robust strategies through the foresight process.





MODULE 02

Understanding Trends and Multi-sectoral and Systems Linkages



Build relationships throughout the foresight activity to enhance cross sectoral coordination and stakeholder collaboration for strategy development and implementation

“

A systems understanding among the stakeholders is the first step to creating meaningful change in the system – and developing a robust strategy through the foresight process.

”



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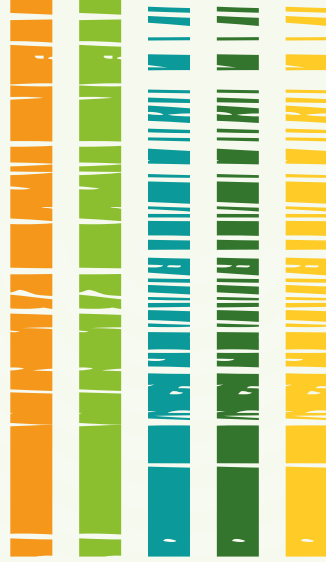
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