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MODULE 6: THEORY OF CHANGE FOR ADAPTATION IN THE AGRICULTURE SECTOR



Objectives

- What is a theory of change and why do we need one?
- Get a common understanding of the long-term adaptation goal for the agriculture sectors – what are we measuring with M&E
- A theory of change for adaptation M&E and agriculture
- Review of existing TOC for adaptation in the agriculture sector from key policies, where available
- Identify the focus of what to monitor and evaluate on adaptation in the agriculture sector, e.g. impacts and vulnerabilities; processes; outcomes; budget

Overview

- Step 1: Definitions, example of TOC in policies and programmes
- Step 2: Define the purpose and objective of the adaptation M&E framework for the agricultural sectors
- Step 3: Identify the focus of what to monitor and evaluate on adaptation in the agriculture sector, e.g. impacts and vulnerabilities; processes; outcomes; budget

Designing an M&E framework and plan for adaptation in the agriculture sectors

Step 1.	Understanding the policy context
Step 2.	Developing a shared understanding of the adaptation goal and pathways for integrating adaptation in the agriculture sector
Step 3.	Defining the purpose and focus of the M&E framework
Step 4.	Developing an M&E Framework for adaptation in the agriculture sector
Step 5.	Identifying indicators to track adaptation in the agriculture sector
Step 6.	Identifying the sources and type of data and information required for each indicator
Step 7.	Operationalising M&E for decision-making on adaptation in the agriculture sector

ADAPTATION GOALS AND ADAPTATION TOC IN POLICIES AND PROGRAMMES

Theory of Change – what and why?

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February 2014

Guidance note 3:
Theory of Change approach to climate
change adaptation programming



- Narrative linking project activities with desired consequences – mechanisms, processes, etc.
- Closely linked to log-frame
- Links outputs, outcomes, impacts
- Makes assumptions explicit
- Framework for indicator selection
- Compare theories of change developed at beginning of intervention (predictive) and end of intervention (explanatory)

Definitions

1. A theory of change is a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context

3. The causal sequence to achieve desired results (FAO)

2. A TOC explains how a group of early and intermediate accomplishments sets the stage for producing long-range results. It articulates the assumptions about the process through which change will occur.

Adaptation goals for agriculture

- Kenya NAP, agriculture action area: *"Enhance the resilience of the agricultural value chain"*
- Philippines NCCAP food security intermediate outcome: *"Ensured food availability, stability, access, and safety amidst increasing climate change and disaster risks"*
- Nepal ADS vision statement: *"A self-reliant, sustainable, competitive, and inclusive agriculture sector that drives economic growth, and contributes to improved livelihoods and food and nutrition security leading to food sovereignty"* – not specifically focused on adaptation

What does adaptation success look like –and how can we measure it

What is successful adaptation?

■ Actions that secure human well-being in the face of climate change

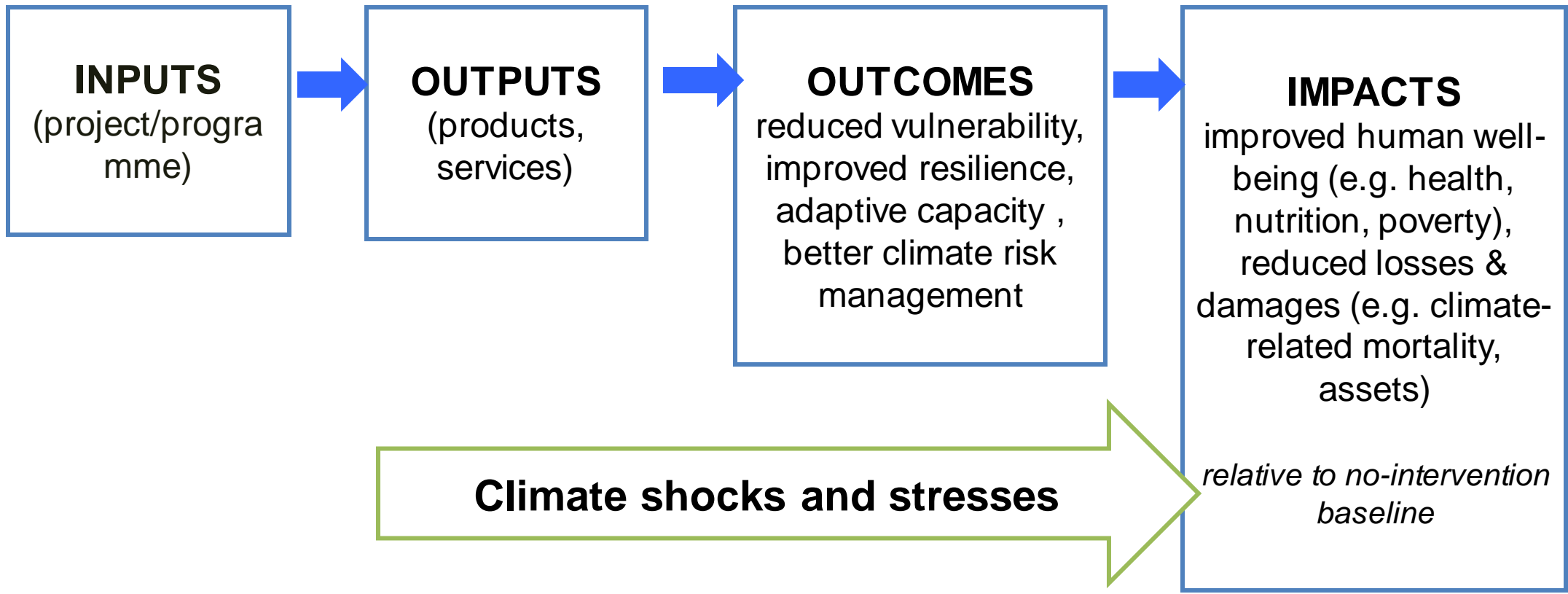
- *Enable development goals to be met despite climate change*
- *Reduce losses/damages triggered by climate hazards despite CC*
- *Secure improvements in health, economic well-being, etc.*

■ How do we achieve this?

- Reduce exposure to climate hazards
- Reduce vulnerability, increase resilience, enhance adaptive capacity

A theory of change for adaptation M&E

(project & programme level)

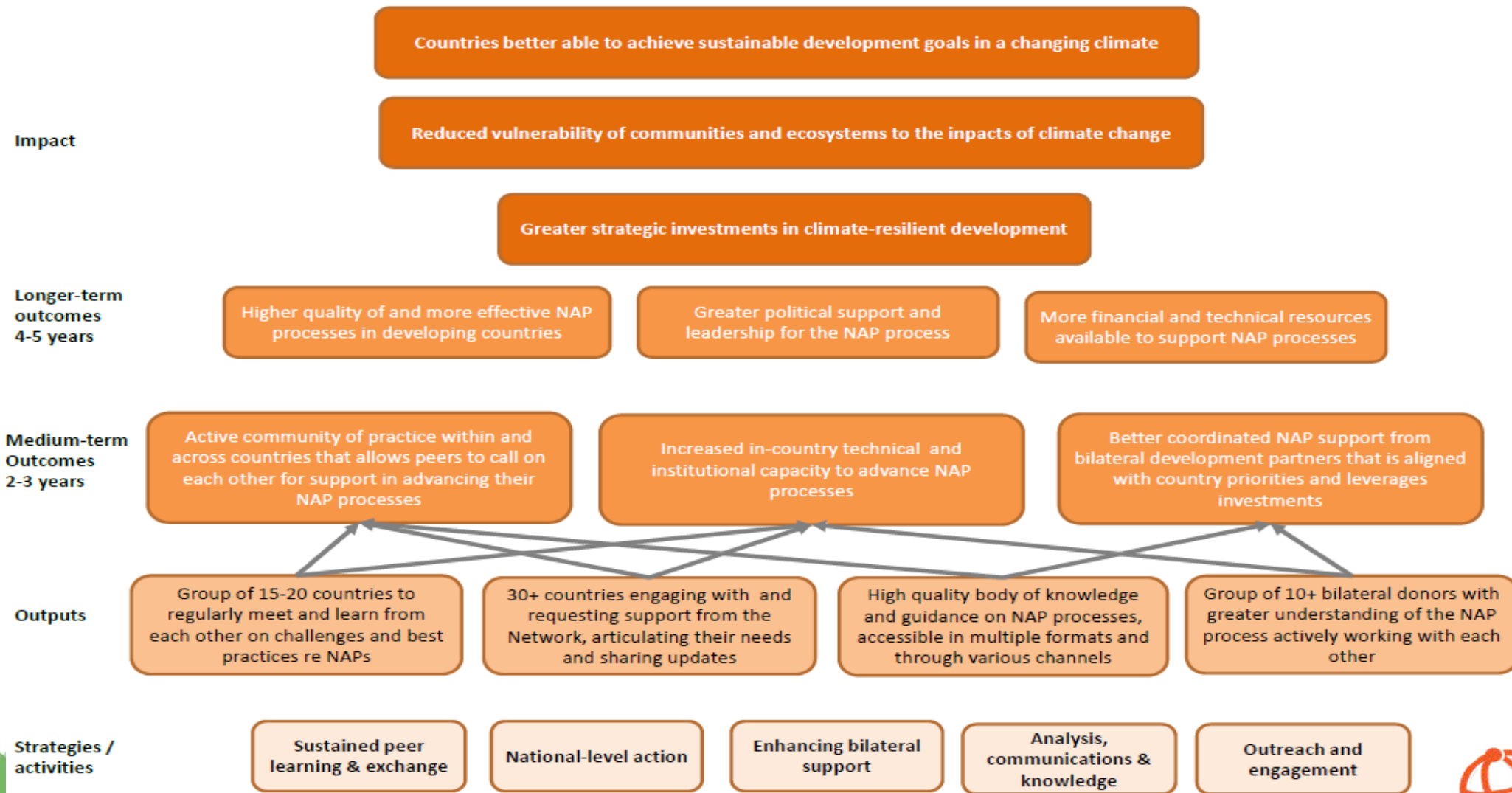


Source: Brooks, Nick; M&E training, Norfolk, UK: Based on theory of change developed for DFID BRACED programme, used for design of programme-level log-frame and programme & project level M&E systems

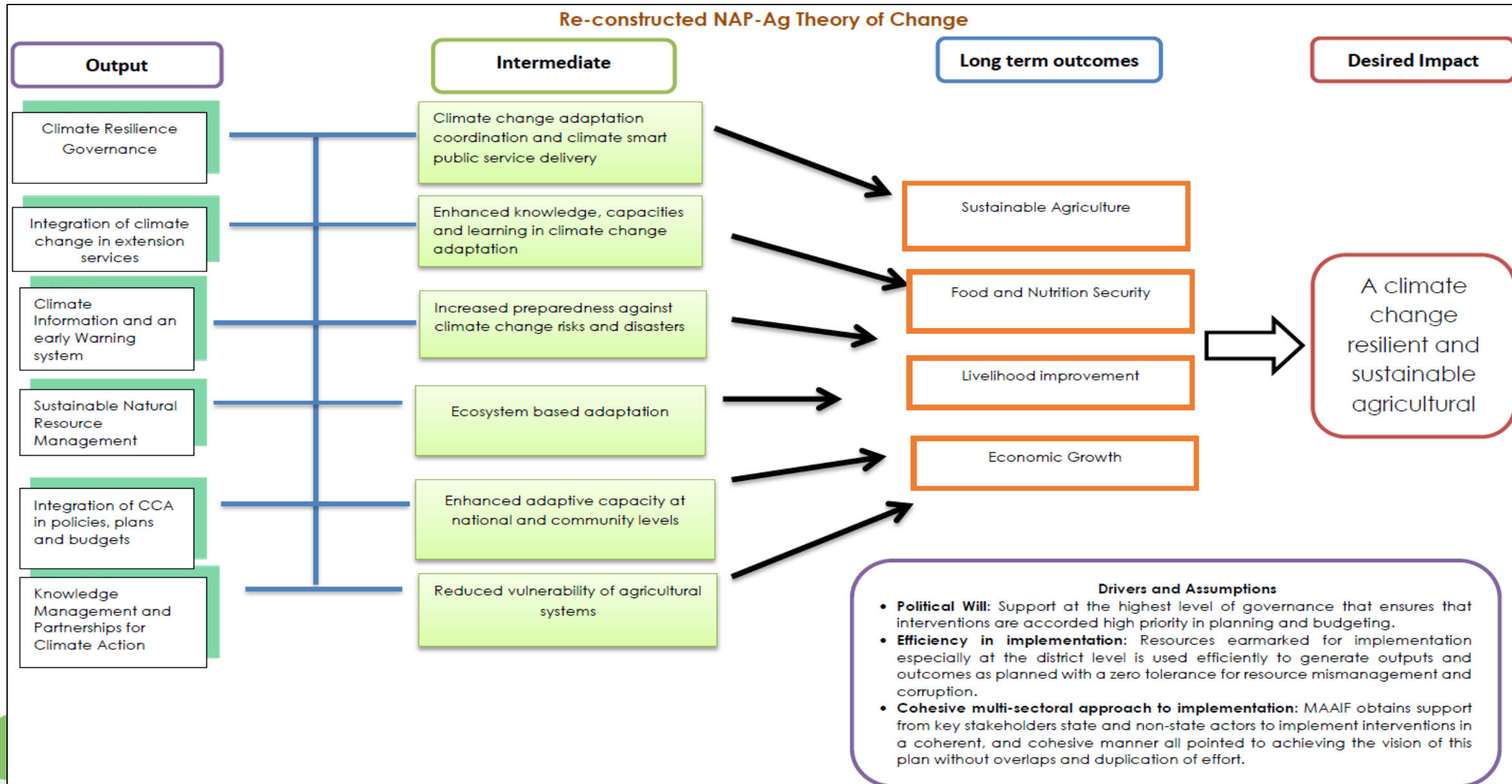
For supporting documents, see: <https://www.gov.uk/international-development-funding/building-resilience-and-adaptation-to-climate-extremes-and-disasters-programme#project-documents>

TOCs NAP Global Network

Theory of Change



Uganda TOC for the agriculture sector NAP



Legend:

↓ decreasing trend

↑ increasing trend

■ significant impacts

■ adaptation measures

✓ prioritized elements

Identified indicators

↪ indicators to assess changes in vulnerability

↪ indicators to track adaptation measures

↪ indicators to measure the impact of adaptation interventions

ⓕ gender relevant indicators



Climate change impact and vulnerability chain for the agricultural sector in the region MTH

Adaptive capacity

- Global monitoring of state of crops through an Agricultural Information System
- Capacity to mobilize surface water (dams and other hydrological infrastructure)
- Traditional techniques for rainwater harvesting and water conservation (e.g. Metfias, Khetaras, ...)
- Financial mechanisms and subsidies of the agricultural sector
- Agriculture climate multi-risk insurances

- Climate stimuli:
- ↓ Precipitation
 - ↑ Temperature
 - ↑ Extreme events

Agriculture Region MTH

Pressure

- Sensitivity
- arid and semi-arid climate
 - fragmentation of agricultural holding
 - standard of living of farmers in mountainous regions

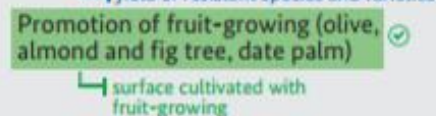
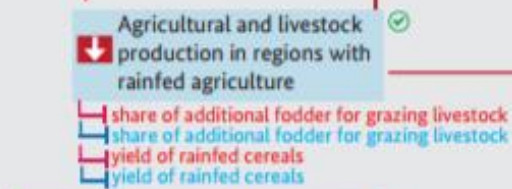
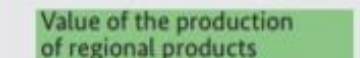
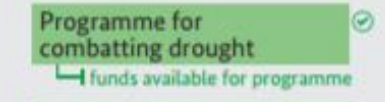
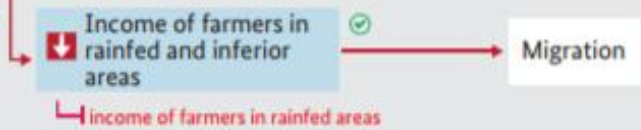
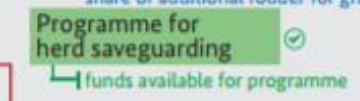
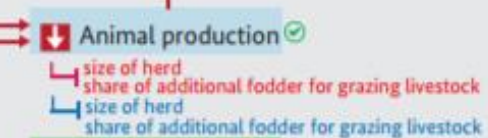
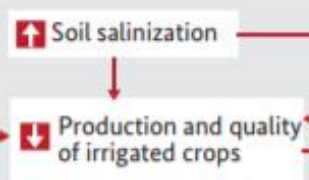
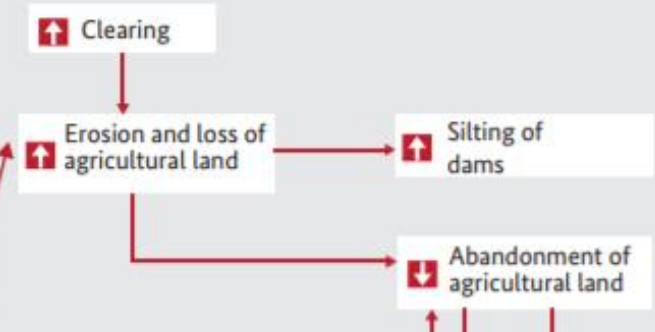


Figure by Youssef Jaouhari.

National Climate Change M&E Framework

■ Adaptação

I Indicador de Impacto- Índice de Vulnerabilidade

I.1.Redução do Risco Climático (4 Indicadores)

I.2.Recursos Hídricos (12 Indicadores)

I.3.Agricultura,Pescas e Segurança Alimentar (19 indicadores)

I.4.Protecção Social (5 indicadores)

I.5.Saúde (6 indicadores)

I.6.Biodiversidade (4 indicadores)

I.7.Floresta (3 indicadores)

I.8.Infraestruturas (9 indicadores)

Mitigação

I Indicator de Impacto - Níveis de Emissao de CO2 per capita

2.1.Energia (16 indicadores)

2.2.Processos Industriais e Uso do Solo (3 indicadores)

2.3.Agricultura,Floresta e Uso do Solo (10 indicadores)

2.4.Resíduos (3 indicadores)

Criar a capacidade institucional e humana bem como explorar oportunidades de acesso a recursos tecnológicos e financeiros para implementar a ENAMMC

Integração das MC no processo de Planificação

Nível de Coordenação e resposta as Mudanças Climáticas

Capacitação Institucional e Gestão de Conhecimento para as Mudanças Climáticas

Nível de Planificação ao nível Local tendo em conta aspetos climáticos

Nível de inclusão de aspectos de Mudanças Climáticas no processo de Orçamentação em Moçambique

Key elements of a TOC- Checklist

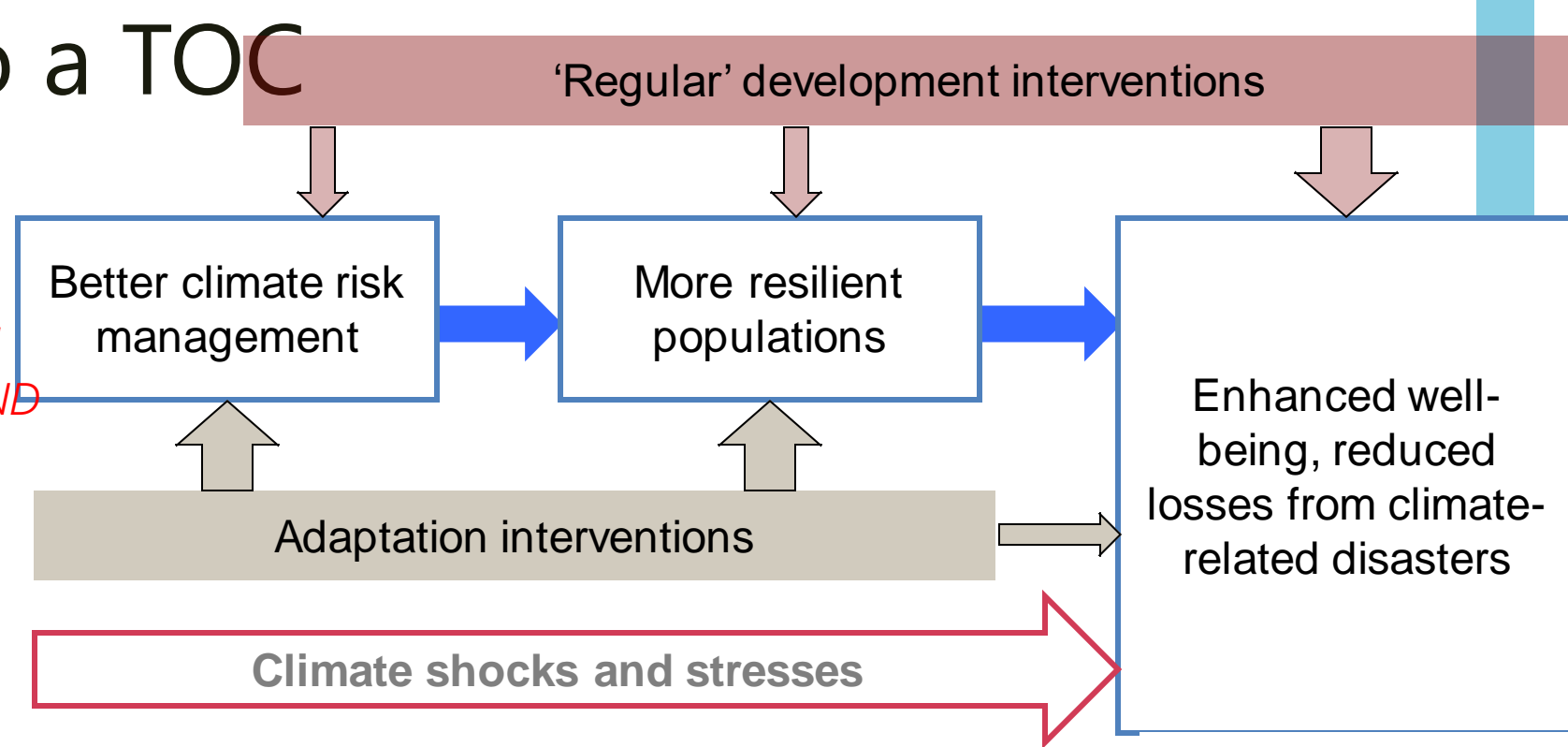
- *What is the **adaptation goal** you wish to achieve in the agriculture sectors? What are the outcomes and outputs? What is the role of the agriculture sector in reaching national adaptation goals?*
- *What are the **different pathways towards the final adaptation goal** (they may already be articulated in e.g. the Agriculture Development Strategy, National Climate Change Strategy, NAP or other development or sectoral policies)? Determine the level of the 'goal – national or sectoral'*
- *How can the **current policies, plans and programme portfolio** within the agriculture sector help **achieve the goal**? Where are the bottle-necks to achieving the goal?*
- *What are the **barriers** to achieve the adaptation goal?*
- *What **assumptions** are you making?*
- *Have you considered how pathways differ for different groups including those of different genders?*
- *Have you identified outputs, outcomes and impacts where relevant, and located these on the pathway?*

Map indicators to a TOC

May improve (or undermine) CRM & resilience

Indicators measure how these delivered by 'regular' dev.. AND adaptation interventions

May deliver ancillary development benefits (win-win)



Focus indicators on different crucial points of the TOC

1. Process indicators: Are institutional **climate risk management** processes improving?
2. Outcomes: Is **vulnerability** being reduced / **resilience** & **adaptive capacity** increased?
3. Impacts
 - Are **losses & damages** from climate shocks & stresses ~stable or declining*?
 - Is human **well-being** ~stable or improving* (health, nutrition, etc.)
4. Climate shocks, events and stresses- Are climate shocks increasing or decreasing

Source: Brook, Nick, Garama 3c, UK

PURPOSE, OBJECTIVE AND FOCUS OF THE M&E FRAMEWORK

What has already been monitored in terms of adaptation in the agricultural sectors

(content to be developed and presented by consultant)



Exercise 1: Purpose of the M&E Framework

- What purpose could an M&E framework for adaptation in the agriculture sector have? What are we trying to measure?
 - *To learn how effective adaptation actions in the agriculture sector are being, and adjust course of future interventions? Including the measurement of differential impacts on women and men, socio-economic class, age, ability/disability*
 - *To monitor and evaluate the implementation of agriculture plans and strategies?*
 - *To report on adaptation spending in the agriculture sector?*
 - *For adaptive management of existing agricultural practices and sectoral priorities?*
- Who are the target users of the M&E results, both within and outside the Ministry of Agriculture?
 - *Ministry of Agriculture sectoral experts and decision-makers, planning units and/or M&E units; national development planners or Ministry of Planning; national climate change coordination body; farmers associations, women's groups, indigenous people groups?*
 - *Ministry of environment, local level authorities implementing agricultural activities, global stakeholders such as UNFCCC?*

Potential focus of the M&E framework

- M&E of climate change **hazards, impacts and associated vulnerabilities** in the agriculture sectors
- M&E of adaptation **processes** in the agriculture sectors: how policies, plans or interventions to address climate change adaptation have advanced in the agriculture sectors, and how the capacity to deliver these has enhanced
- M&E of adaptation **outcomes** in the agriculture sectors: changes brought about by the implementation of adaptation policies and interventions in the agriculture sectors, for example in terms of reduced losses and vulnerability to climate change or enhanced adaptive capacity at community, sub-national or national level

Exercise 2: Focus of the M&E Framework

- *Are you looking to **monitor how the climate is changing** and what the impacts are on the agricultural sector, as well as on different actors?*
- *Are you aiming to **monitor the advancement of a specific policy, plan or intervention** and how this contributes to adaptation on the ground? E.g. a NAP, an Agriculture Development Strategy or Climate Smart Agriculture Strategy?*
- *Are you looking to **monitor and evaluate** the outputs/outcomes and/or impact of a **portfolio of adaptation programmes in the agriculture sector**, evaluating what works, what doesn't? Is this done to inform future investment decisions?*
- *Are you looking to **monitor and evaluate increased capacity** of key (agricultural) stakeholders in delivering policies, plans and programmes related to adaptation?*
- *Do you wish to **monitor and evaluate adaptive capacity** in the agriculture sector in terms of e.g. changes in agricultural practices that make them and dependent people less vulnerable to climate change?*
- *Are you looking to **monitor where and how adaptation funding is used**, and by whom?*

Focus of adaptation M&E for the agriculture sector in NAP-Ag countries

- **Kenya:** an M&E System has been developed to monitor the implementation of the Kenya Climate Smart Agriculture Implementation Framework.
- **Uganda:** a Performance Monitoring and Evaluation Framework was developed for the National Adaptation Plan of the Agriculture Sector. The draft Framework seeks to measure both adaptation processes and outcomes in the agriculture sector.
- **Uruguay:** As part of the conceptualization of the National Adaptation Plan to Climate Variability and Change for the Agriculture Sector (PNA-Agro and the Action Plan for 2025), a matrix of 32 indicators was elaborated. The identification of the indicators was performed by searching for synergies with the PNA-Agro and other existing indicators in the NDC and the SDGs, in order to track progress in the implementation of the four adaptation dimensions, namely Production system (9 indicators), Ecosystems and natural resources (9 indicators), Livelihoods (9 indicators), Institutional Capacities (5 indicators).



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THANK YOU

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CAPACITY BUILDING INITIATIVE FOR TRANSPARENCY

FAO CBIT – AFOLU PROJECT

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