NAP Ag

Integrating Agriculture in National Adaptation Plans

FUNCTION AND TYPES OF ADAPTATION INDICATORS

Food and Agriculture Organization of the United Nations

UNDP

Empowered lives.
Resilient nations.

Supported by:

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

based on a decision of the German Bundestag

8th Workshop of the Regional Group for Anglophone Africa
'Tracking progress on adaptation to climate change under the enhanced transparency framework'
8-10 May

Elisa Distefano
Environment and Climate Change Adaptation Consultant,
Environment and Climate Division, FAO

Essential characteristics of indicators

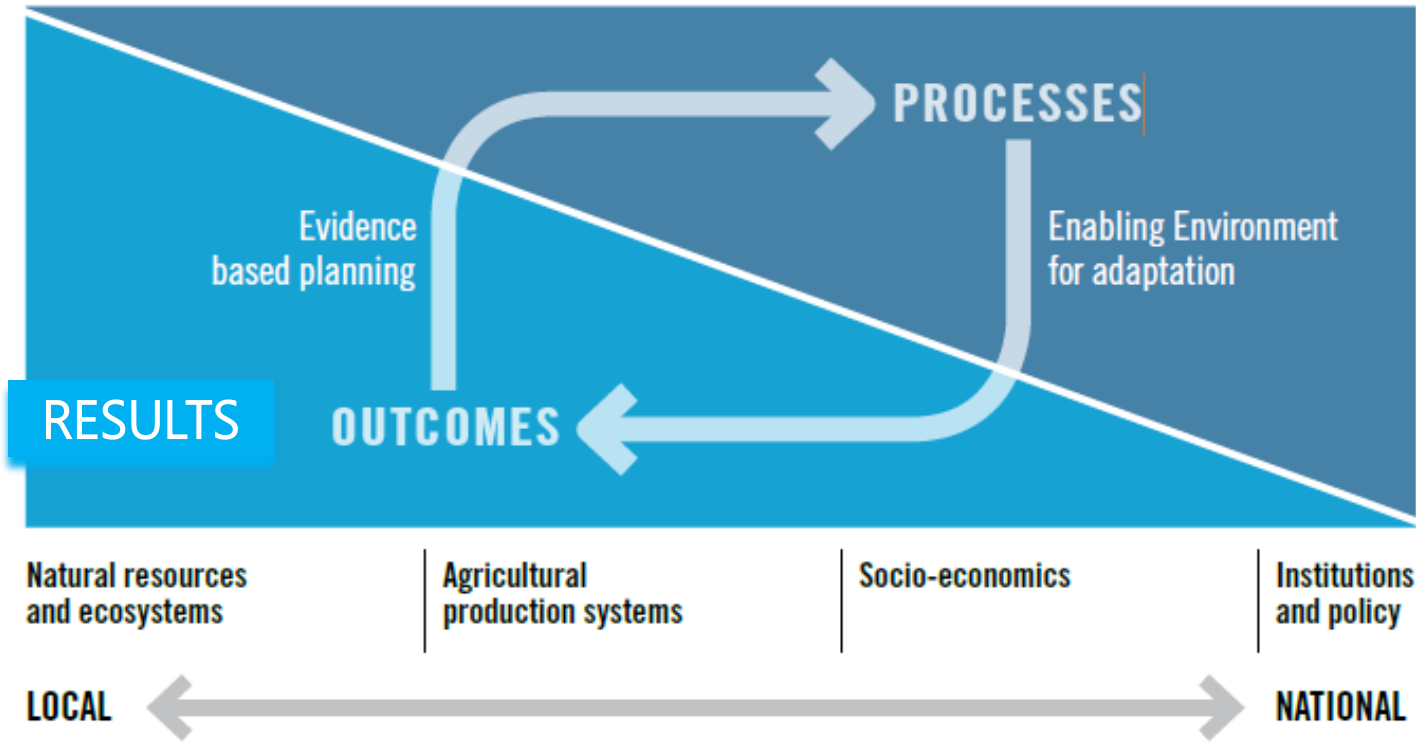
- SPECIFIC. Indicators should be simple, clear and easy to understand and communicable.
- MEASURABLE. Indicators should be based on readily available data, or on data that can be made available at a reasonable cost.
- ACHIEVABLE: Indicators and their measurable units must be achievable and sensitive to change during the life of the project.
- ANALITICALLY SOUND. Its validity should be widely accepted
- RELEVANT. Indicator sets should reflect information that can be used for management or immediate analytical purposes. They should provide a balanced coverage of all key adaptation objectives.
- TRANSPARENT. The indicators should be transparent and easy to interpret, i.e. users should be able to assess the significance of the values associated with the indicators and their changes over time.
- TIME BOUND. Progress can be tracked at a desired frequency for a set period of time.

Type of indicators I

- **Process Indicators** indicators measure progress in implementing adaptation policies, plans, projects or changes in institutional decision-making capacity, which create an enabling environment for adaptation.

ELEMENTS OF M&E FOR ADAPTATION IN AGRICULTURE

- **Outcome/Results Indicators** are used to evaluate whether or not the activity, plan or policy achieved the intended objectives or results.



Type of indicators II

- **Quantitative indicators** – these are the most commonly used. Quantitative indicators provide information on "how much" or "how many"
- **Qualitative indicators** - Qualitative indicators provide information on how people feel about a situation, how things are done, how people behave, etc.

- **Results Indicators** can be measured at different levels:

Output indicators illustrate the change related directly to the activities undertaken within the programme (e.g. percentage of cultivated surface area cultivated with drought resistant varieties.)

Outcome indicators relate to medium-to-longer term change (e.g. percentage of poor people in drought-prone areas with access to safe and reliable water)

Impact indicators measure the long-term effect of programme interventions (e.g. increase in adaptive capacity of farmers in community x, disaggregated by sex of household head)

Indicator type		Definition	Examples from existing systems
Climate risk	Climate hazards	Observed climatic parameters which may adversely affect people and assets	- Monthly precipitation - Change in annual precipitation, - Number of hot days per year (Mekong River Commission)
	Climate impacts	Observed impacts of climate variability and change on socio-ecological systems	- Percentage of total livestock killed by drought in a given year - Number of hectares of productive land lost to soil erosion (Kenya National Climate Change Action Plan)
	Exposure	Presence of people and assets in areas that could be adversely affected by climate hazards	- Number of businesses, hospitals and households within most deprived communities located in areas at risk of flood or coastal erosion (United Kingdom Adaptation Framework)
	Adaptive Capacity	Capacity of exposed institutions, systems, and individuals to adjust or cope with potential risks (and take advantage of opportunities)	- Percentage of municipalities with local regulations considering adaptation and vulnerability assessment results - Percentage of coastline under marine protection
			(Mexico Adaptation Monitoring and Evaluation system)

Indicator type	Definition	Examples from existing systems
Adaptation Process	Implementation of strategies and plans through policy action or allocation of financial and human resources (inputs)	- Percentage of transport infrastructure revised to account for climate change - Number of mechanisms identified which could potentially fund adaptation (France Evaluation of National Adaptation Plan)
Adaptation Outcomes	Results of adaptation policies and plans on climate risks	- Increase in the no. of small farmers and fisher folk who are credit worthy - Water supply coverage of previously waterless communities (Philippines Results-Based Monitoring and Evaluation System)

Rationale for tracking adaptation processes & outcomes

Identification of agriculture-specific adaptation interventions, challenges and gaps, with a view to encouraging good practices and improving the effectiveness and sustainability of adaptation actions.

The information generated as part of the tracking process can help to raise broader political and financial support.

Countries need to submit and periodically update adaptation Communications to UNFCCC

Need to share scientific knowledge related to status of implementation requires a sector-specific frameworks.

Why another framework and methodology?

Although several frameworks and methods to monitor adaptation processes and their outcomes at national level exist, no agriculture-specific tools have been developed yet.

It captures the interlinkages between adaptation processes and outcomes in agricultural sectors and their effects on food security and nutrition

The framework is specifically designed to monitor CCA at the national level.

The framework can be customized to monitor adaptation at the local level

Contents

Main and subcategories of indicators

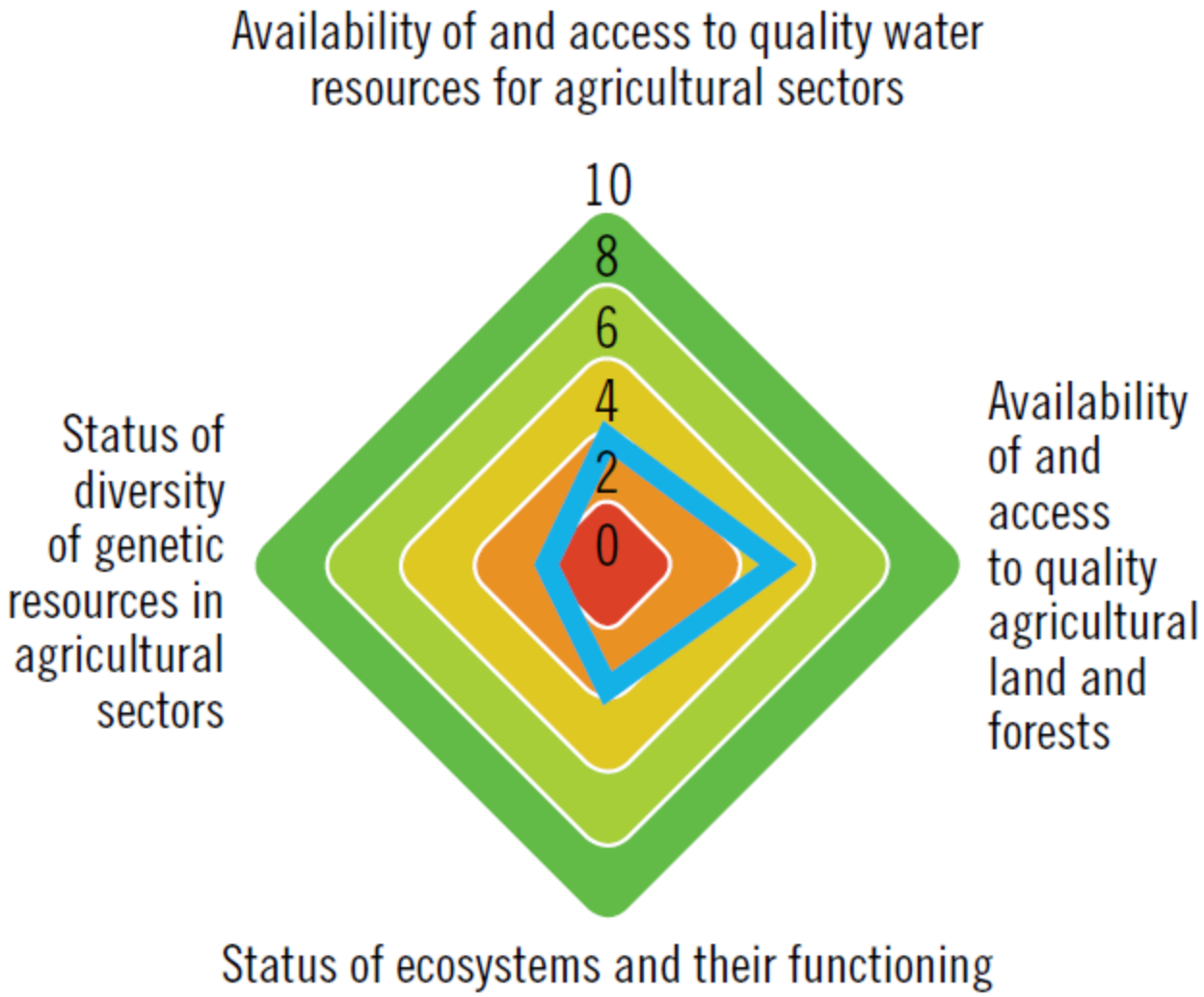
- **112 indicators**, of which **81** related to outcomes/quantitative and **31** to process/qualitative indicators
- Around 50% of them are from FAO, UNISDR, UNFCC
- **31 are SDGs** indicators

Main categories	Subcategories	
Natural resources and ecosystems	1	Availability of, and access to, quality water resources for agriculture
	2	Availability of, and access to, quality agricultural land and forests
	3	Status of ecosystems and their functioning
	4	Status of the diversity of genetic resources in agriculture
Agricultural production systems	1	Agricultural production and productivity
	2	Sustainable management of agricultural production systems
	3	Impact of extreme weather and climate events on agricultural production and livelihoods
	4	Projected impact of climate change on crops, livestock, fisheries, aquaculture and forestry
Socio-economics	1	Food security and nutrition (vulnerability)
	2	Access to basic services
	3	Access to credit, insurance, social protection in rural areas
	4	Agricultural value addition, incomes and livelihood diversification
Institutions and policy making	1	Institutional and technical support services
	2	Institutional capacity and stakeholder awareness
	3	Mainstreaming of climate change adaptation priorities in agricultural policies, and vice versa
	4	Financing for adaptation and risk management

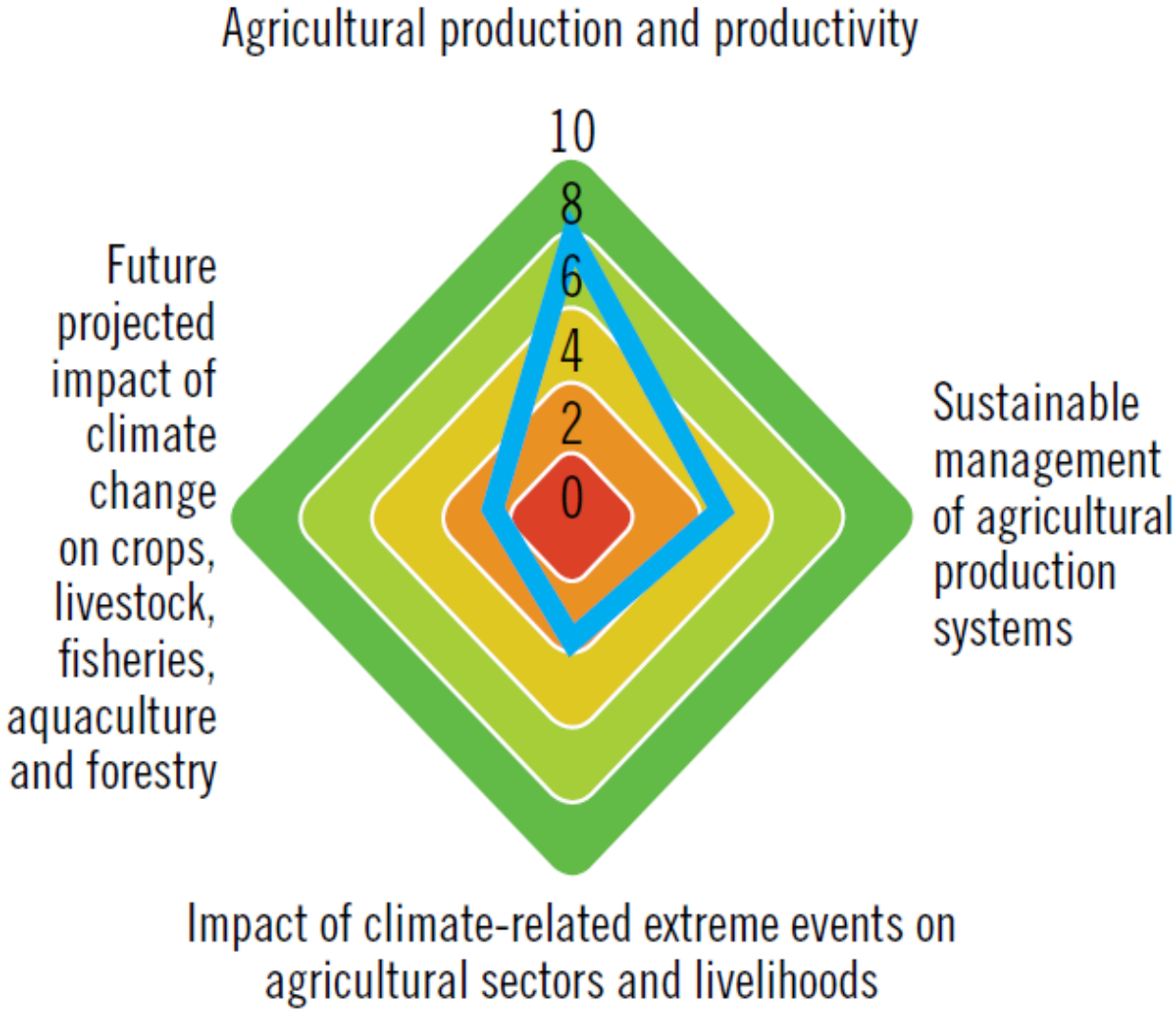
Main features of the methodology at national level

- The selection and choice of indicators depends on the national context, user needs and the relevance and availability of data
- Indicators are given scores from **0 to 10**
- Most process-based indicators are qualitative, and most outcome-based indicators are quantitative
- The one to ten scoring system matches the **five** levels of **adaptation progress**: very low, low, moderate, high and very high.
- The score of a subcategory is calculated as **the average** of the weighted scores of the indicators` values included in the subcategory.
- The score of an overall category of indicators is calculated as **the average** of the scores calculated to each of its subcategories.

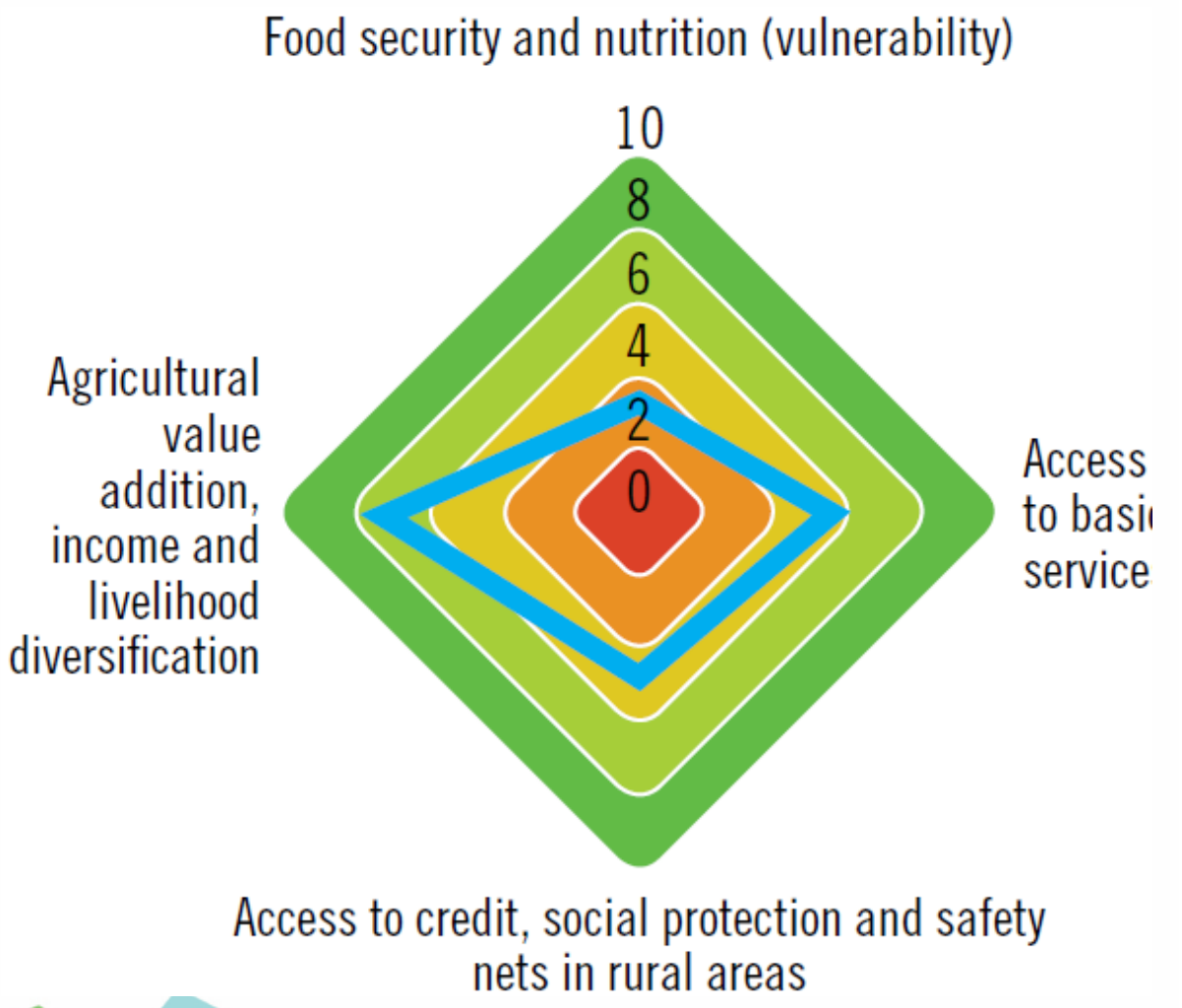
1) Natural resources and ecosystems



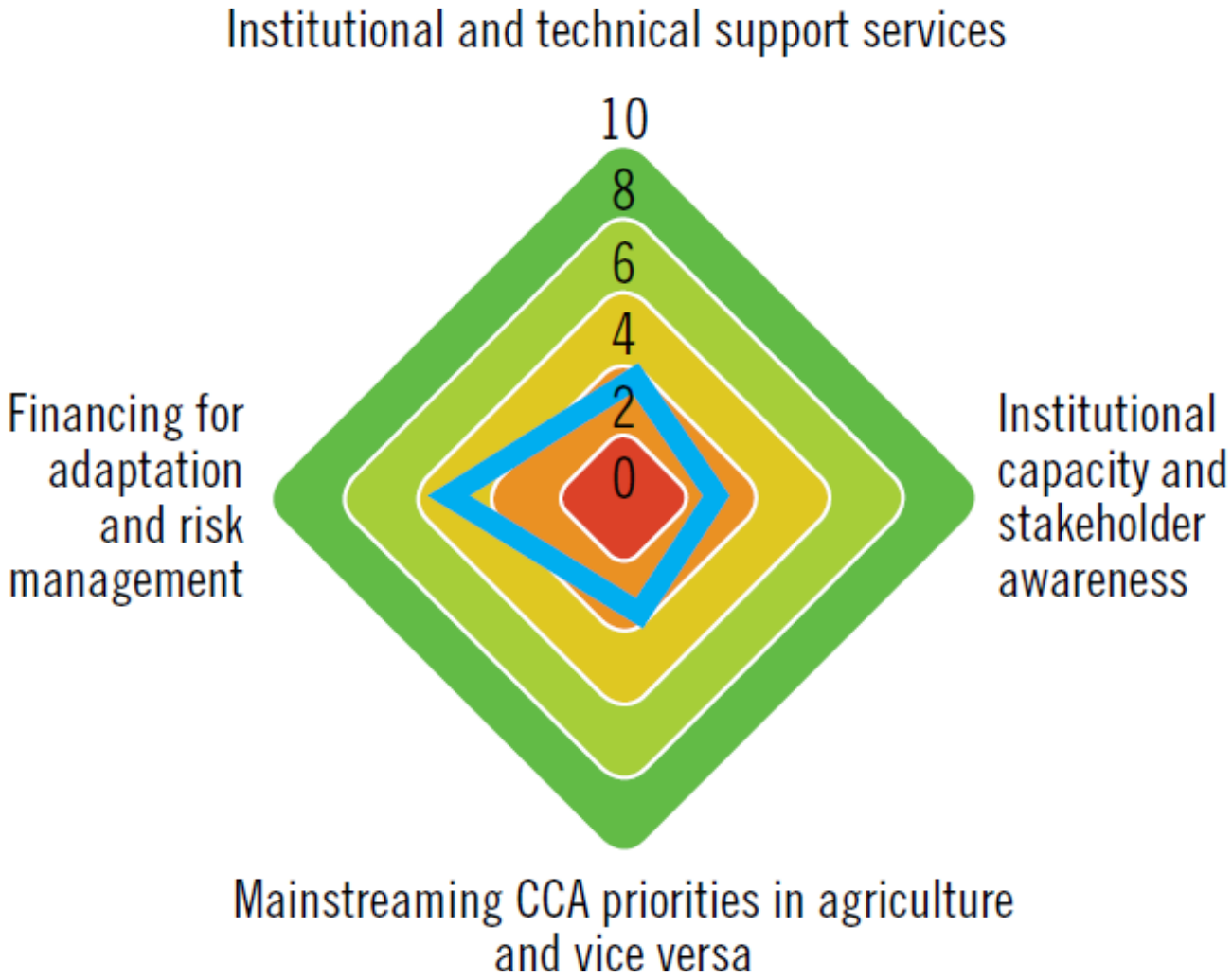
2) Agricultural production systems



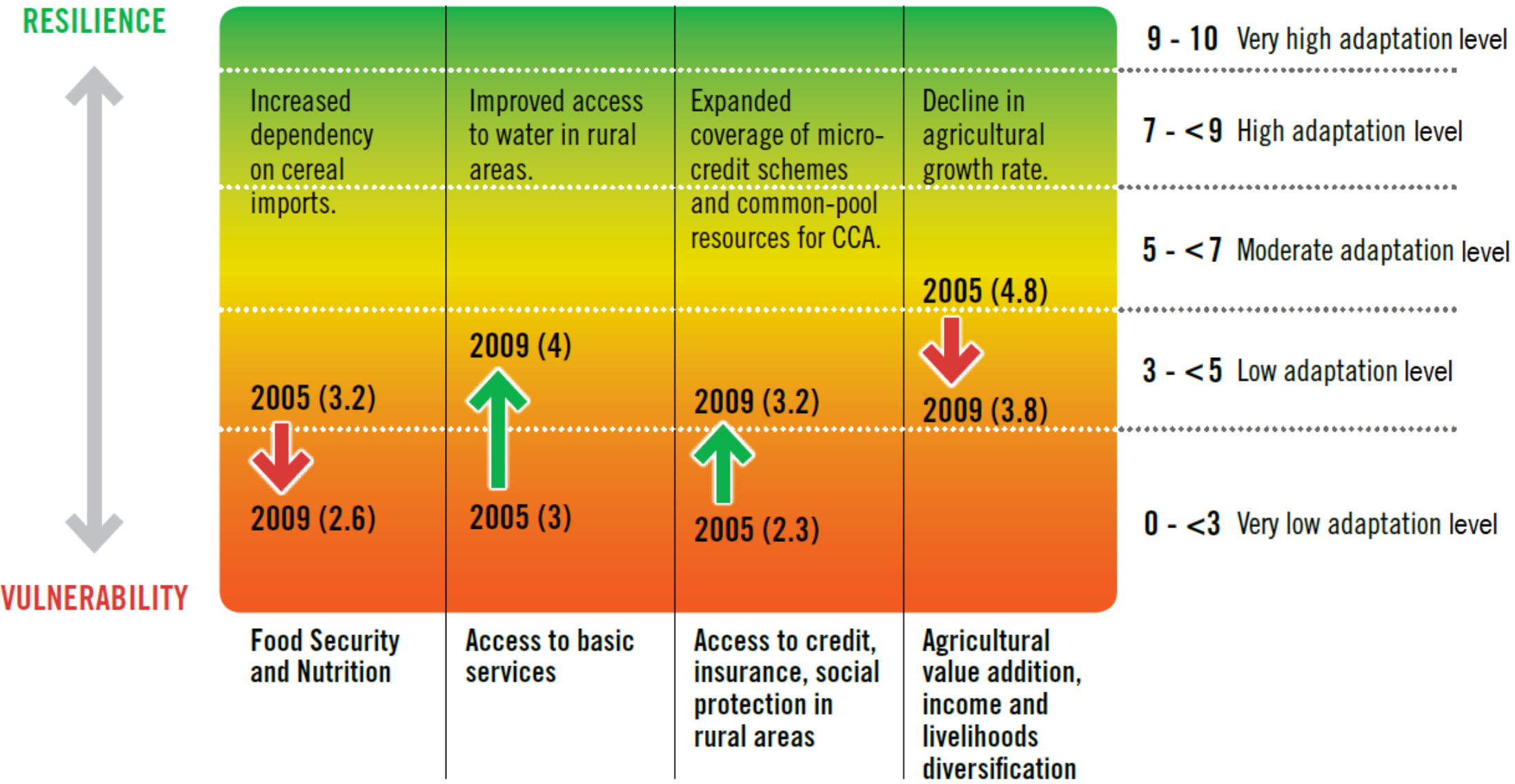
3) Socio-economics



4) Institutions and policies



Comparison selected socio-economic indicators of adaptation in Kenya (2005 2009)



Thank you!