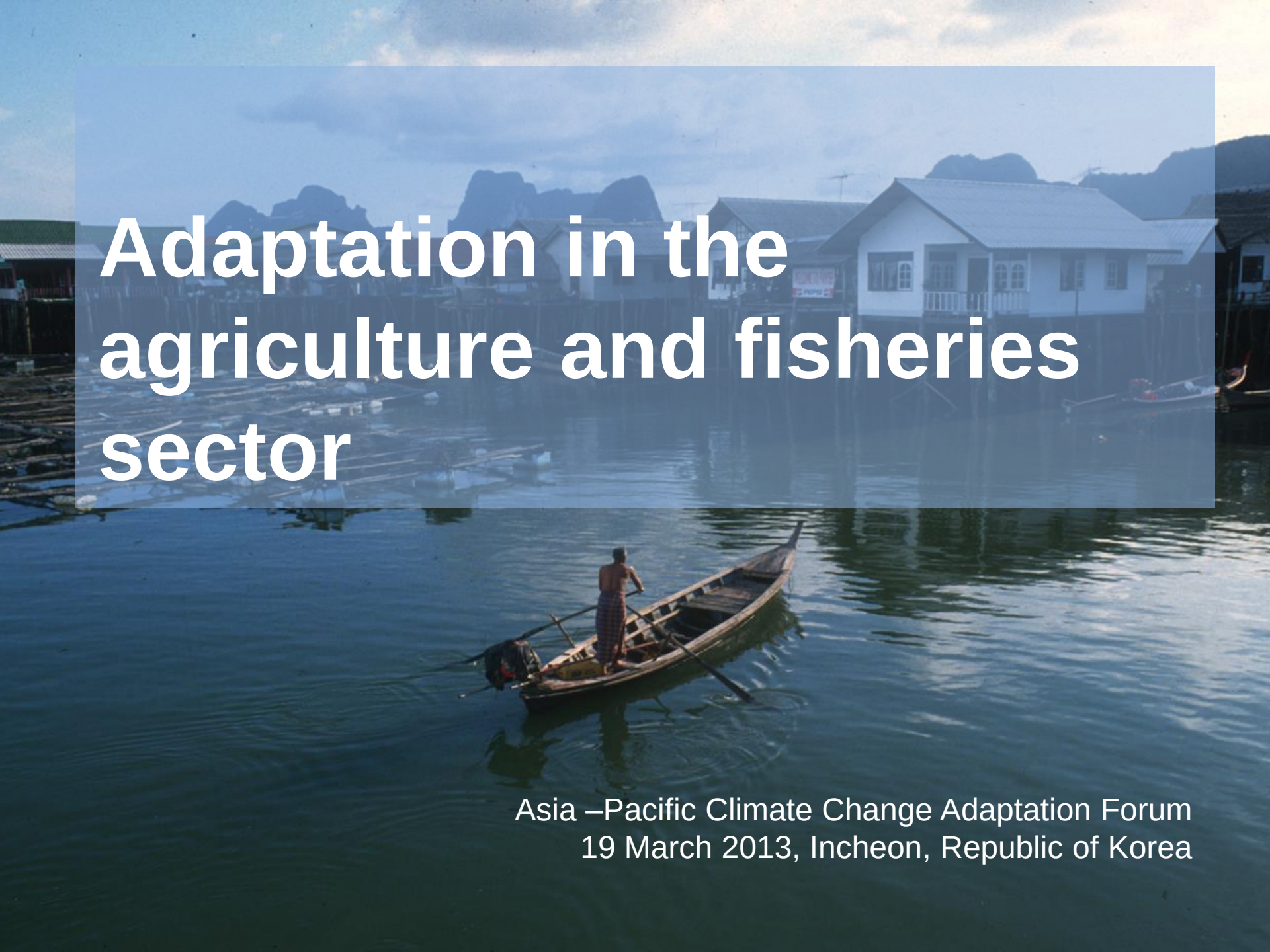


Adaptation in the agriculture and fisheries sector

Asia –Pacific Climate Change Adaptation Forum
19 March 2013, Incheon, Republic of Korea

Session Objectives

1. To share experiences and insights with adaptation needs assessments, policy frameworks and field level programs in the agriculture sector; and

2. To draw upon lessons learned from adaptation initiatives from around the region to identify strategies/opportunities to better mainstream adaptation into agriculture sector policy and programs in Asia and the Pacific.

Session Assumptions

- There are a wide range of activities happening on the ground right now to adapt agriculture and agriculture dependent communities to climate change; particularly at a local level
- There is a growing body of research and number of assessments on climate change impacts available to guide adaptation policy for the sector
- Governments are aware of the risks of climate change to agriculture and they want to systematically enhance adaptation in the sector
- Government agriculture departments have relatively limited power to influence national planning processes – including on climate change

If these assumptions hold…

How do we take the **success stories** and lessons learned from the ground and **integrate, coordinate or turn them into effective national approaches** for climate change adaptation in the agriculture and fisheries sector….

Key question

Adaptation in the agriculture and fisheries sector

Beau Damen

Bioenergy Officer and Climate Change Coordinator
FAO Regional Office for Asia and the Pacific

Context

Population

Urbanization

Infrastructure development

Agricultural expansion

Science and technology

Governance

Poverty

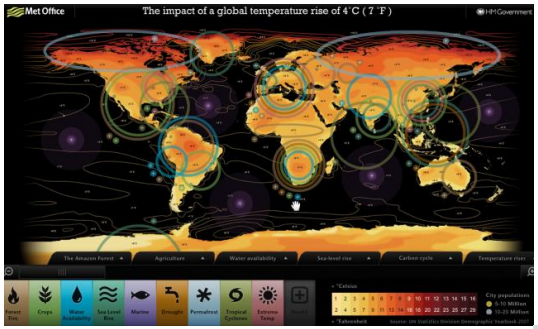
Climate change

Climate change is one of many challenges

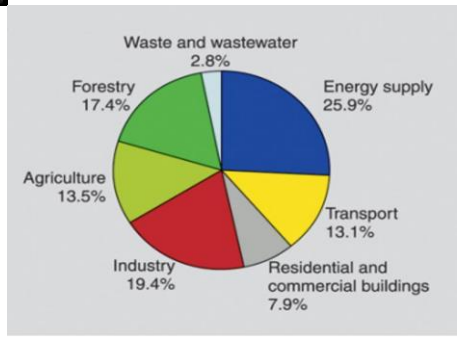
FAO Perspective

We need more food…..

..from more resilient agriculture systems…

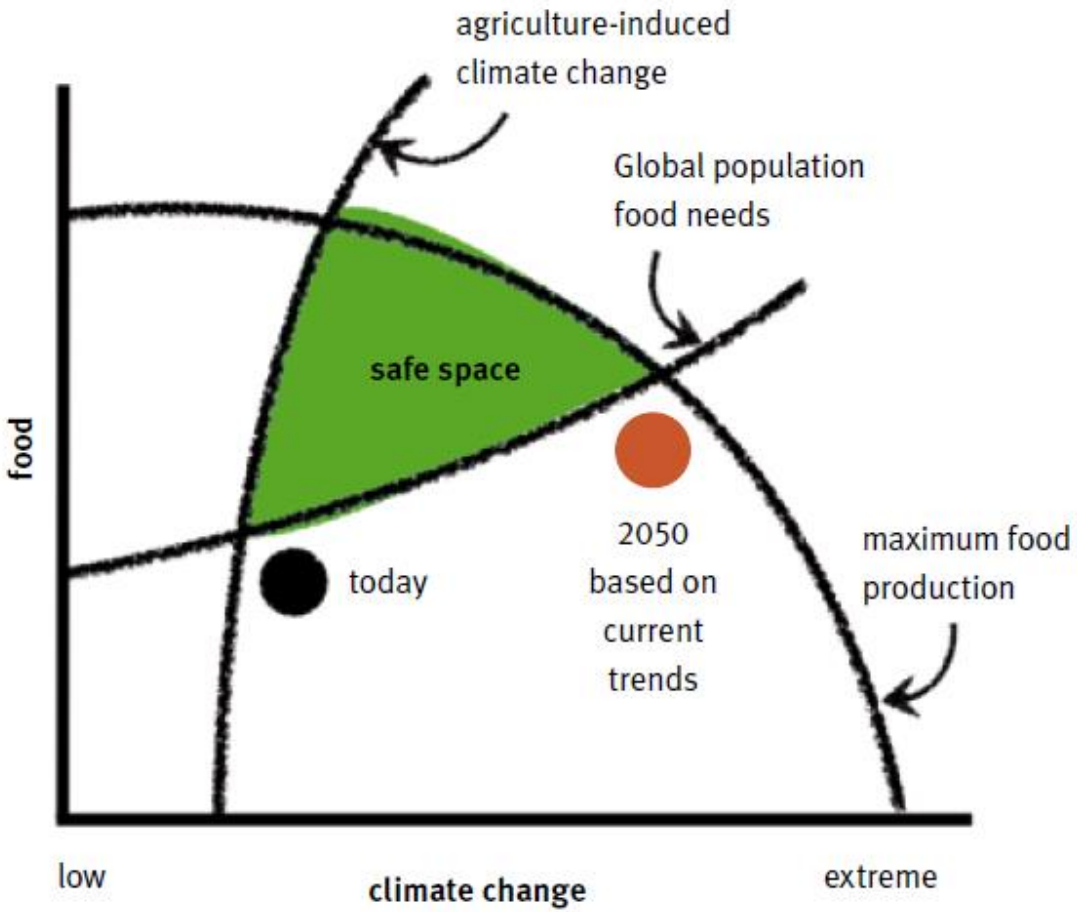


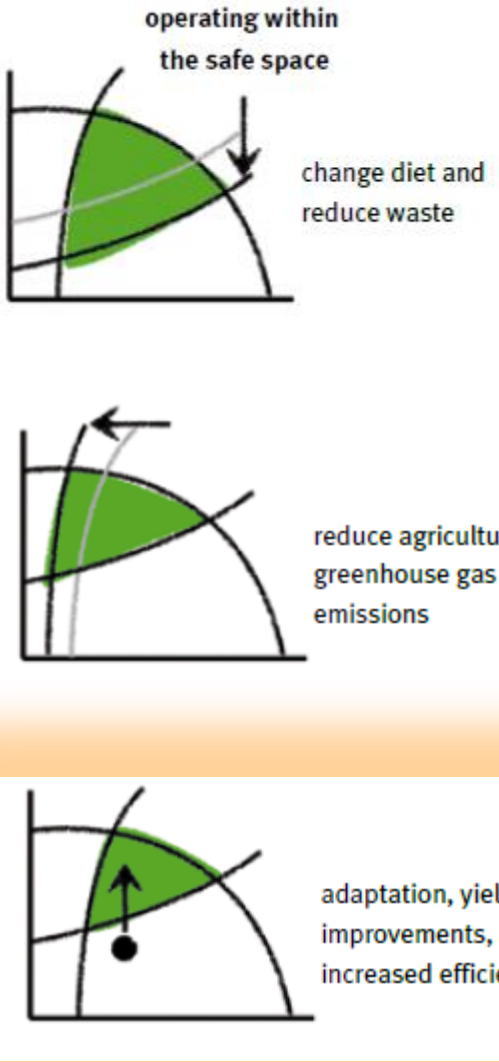
..that emit less greenhouse gas emissions



Key challenges for agriculture

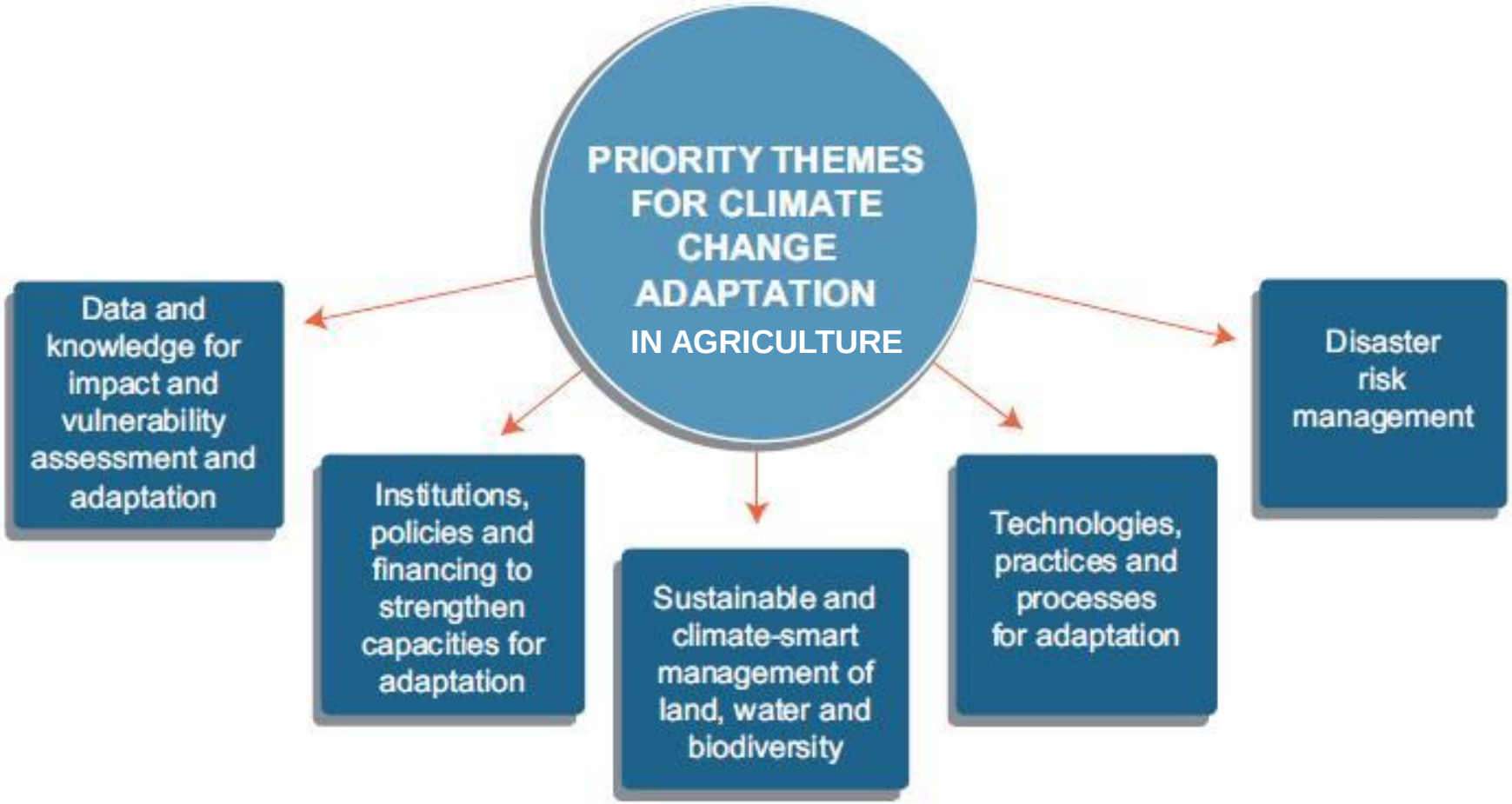
Finding a “safe space” for food and climate systems





Source: Commission on Sustainable Agriculture & Climate Change, 2012

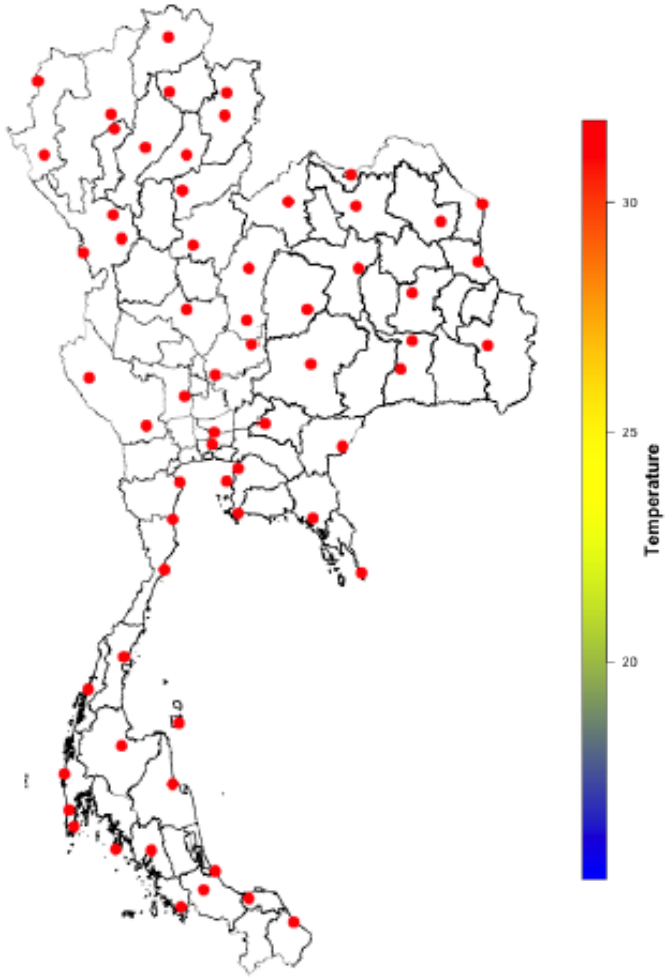
FAO ADAPT

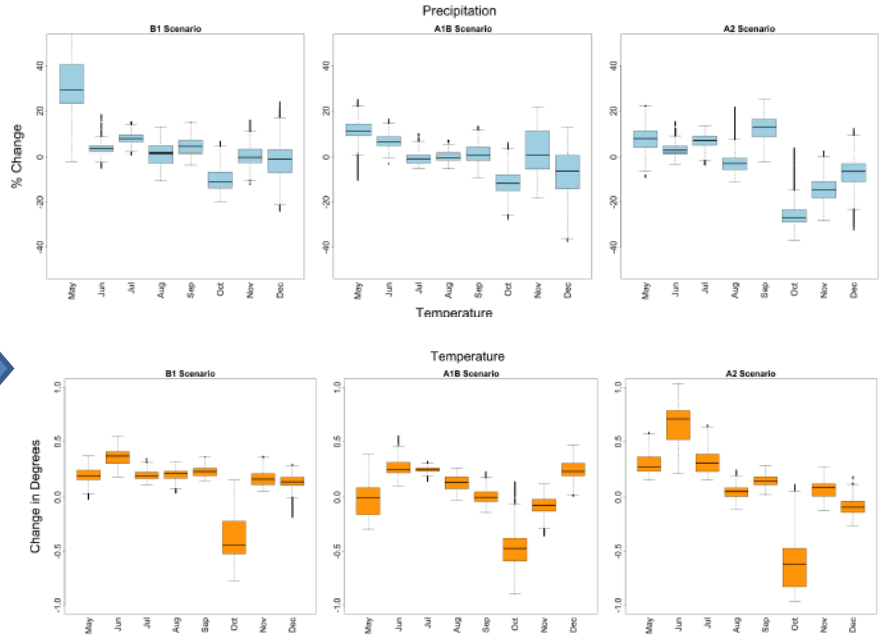

PRIORITY THEMES FOR CLIMATE CHANGE ADAPTATION IN AGRICULTURE
Data and knowledge for impact and vulnerability assessment and adaptation
Institutions, policies and financing to strengthen capacities for adaptation
Sustainable and climate-smart management of land, water and biodiversity
Technologies, practices and processes for adaptation
Disaster risk management

Climate adaptation policy in Thailand

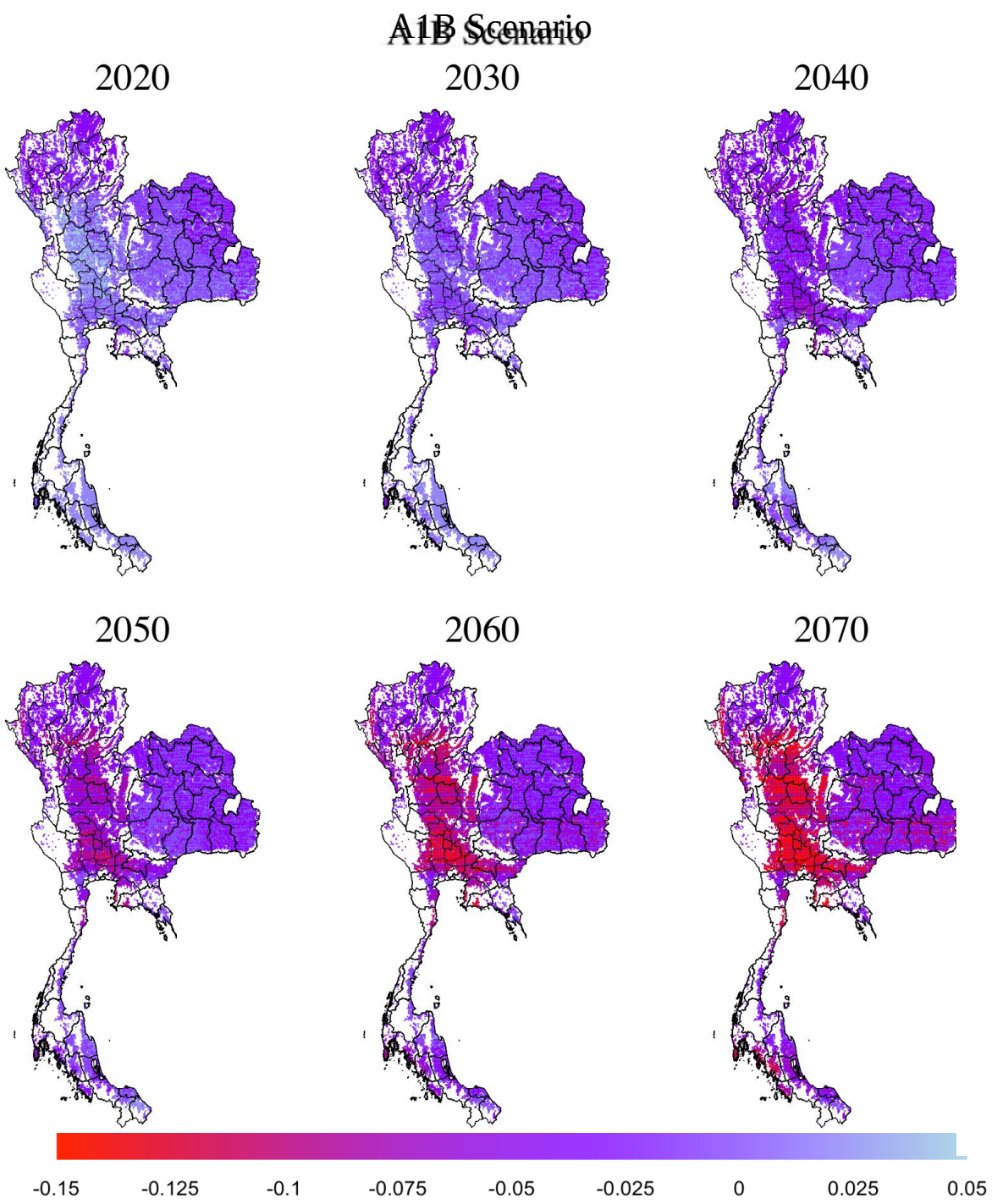
Distribution of weather stations with continuous daily data observations (1981-2010)

Predicted Climate Change in wing Areas Across GCMs during Growing Season (2010-2030)





Rice model



Thailand: Projected rice Yield Changes Based on Down-Scaled GCMs

Community Based Adaptation

Bangladesh example (LACC):

- Development of community based adaptation and disaster risk management plans
- Participatory demonstrations of adaptation options
- Farmer to farmer exchange visits
- Farmer consultations regarding DRM and CCA
- Community field days
- Demonstration of field options (rainwater harvesting, dry seed beds for rice cultivation, alternative fruit tree varieties ,homestead gardening)





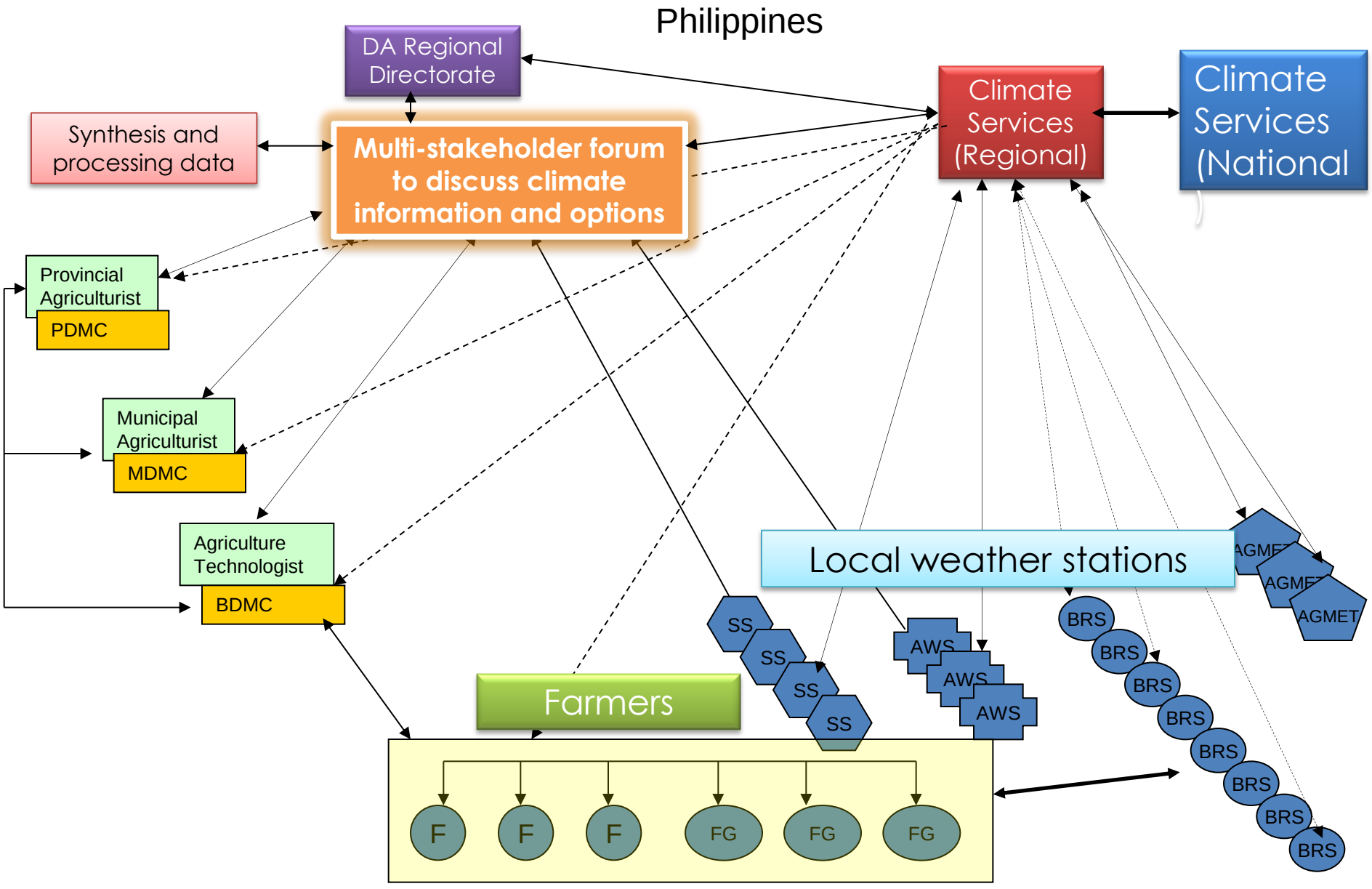
Improved climate and flood forecasting in Bicol region, Philippines

- Region prone to flash flood, typhoon, water stagnation, drought and landslides

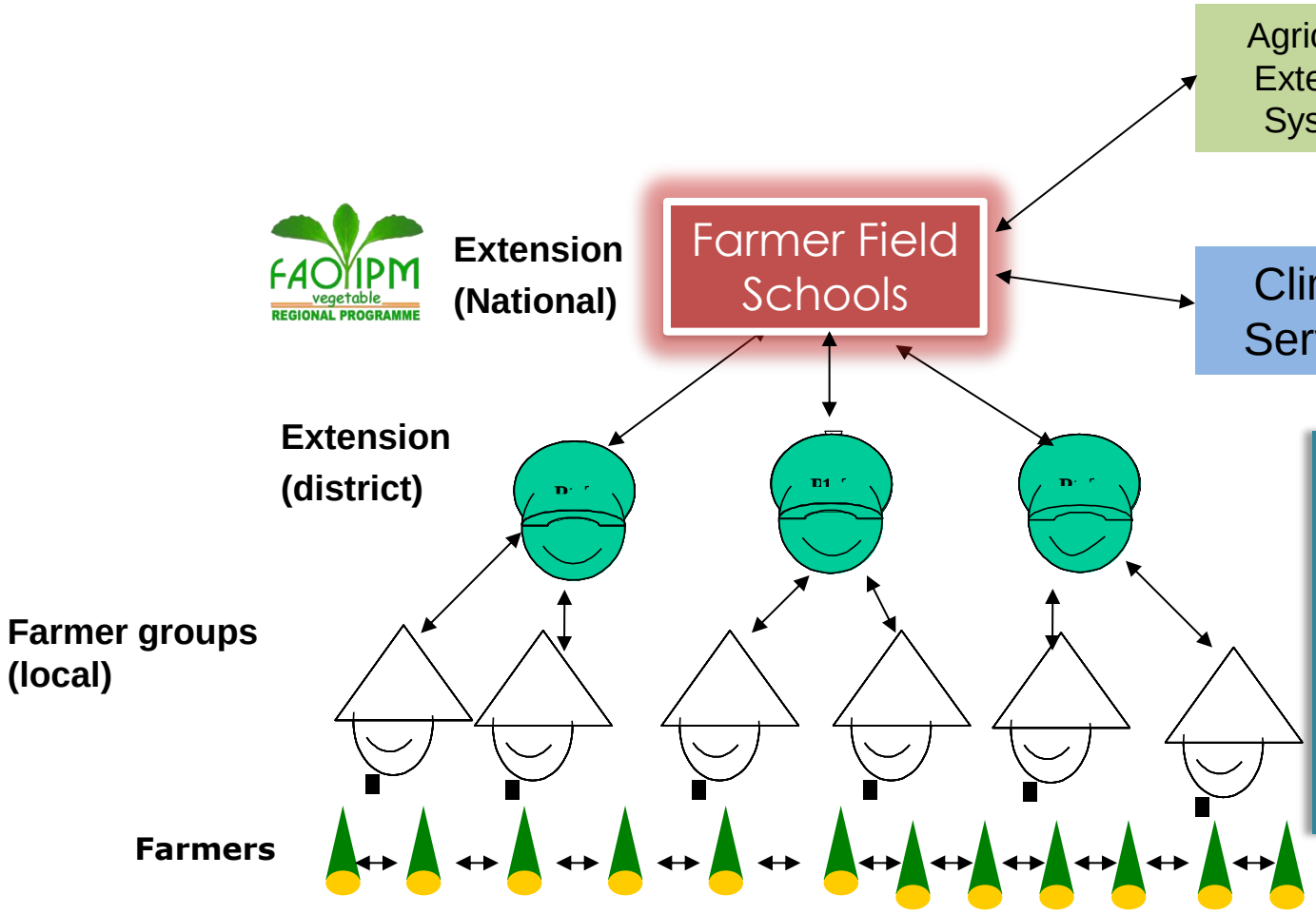
Intervention – Use of climate risk information for risk management and adaptation

- Strengthened monitoring **infrastructure** (AWS)
- Enhanced **capacity** of stakeholders to interpret climate information and prepare impact outlooks
- Establishment of **communication** systems (SMS message exchange)

Integrated Weather and Climate Information Services for food and agriculture at decentralized Levels



Farmer Field Schools (FFS)



Farmers report information on climate risks in their area and need-based management options are discussed in the FFS

Platform to interact with farmers on climate issues

Results: Climate Change FFS in Indonesia

- **Farmer networks** on climate observation and communication established
- Communities determine the planting season (rainy and dry season) acc. to **their observations** and climate data from their climate stations
- Saline and drought tolerant rice varieties identified
- **Farmers practice** water harvesting and better crop-water management to minimize the risk of drought

Lessons: Community-based approaches

- CBA is a proven way to promote adaptation in ag
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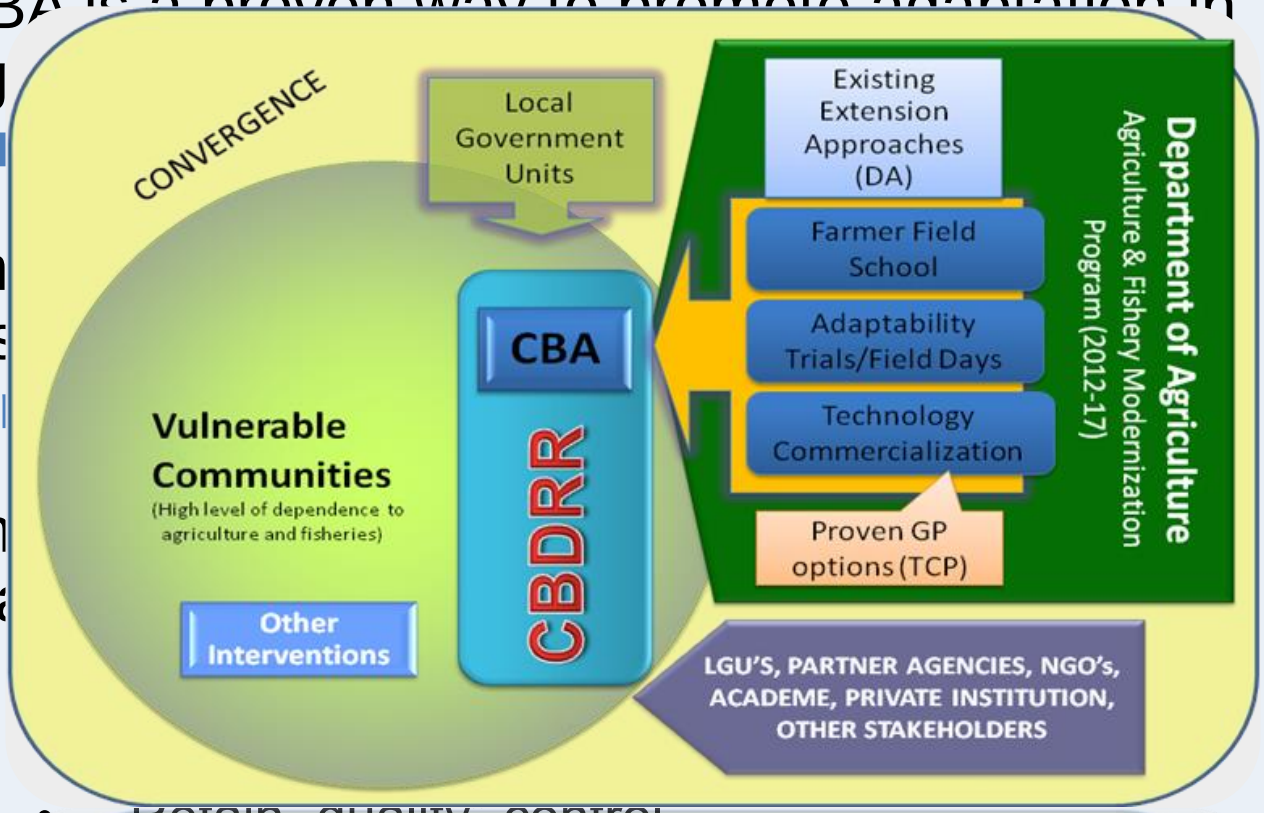
  - Retain "quality" control
- Action research and iterative planning cycles (3-5 years)



Lessons: Community-based approaches

- Single **most needed** technical input is **seasonal weather forecasting translated** into agriculture sector specific crop and water management advice
- Priority responses should be **no-regret options**
    - Sustainable land & water management practices are essential for effective CCA
- **Combine** adaptation (1) and mitigation targets (2)

Climate-Smart Agriculture

"To transform agriculture to enhance the achievement of national food security and development goals in the light of global challenges"

ww.fao.org/climatechange/climatesmart

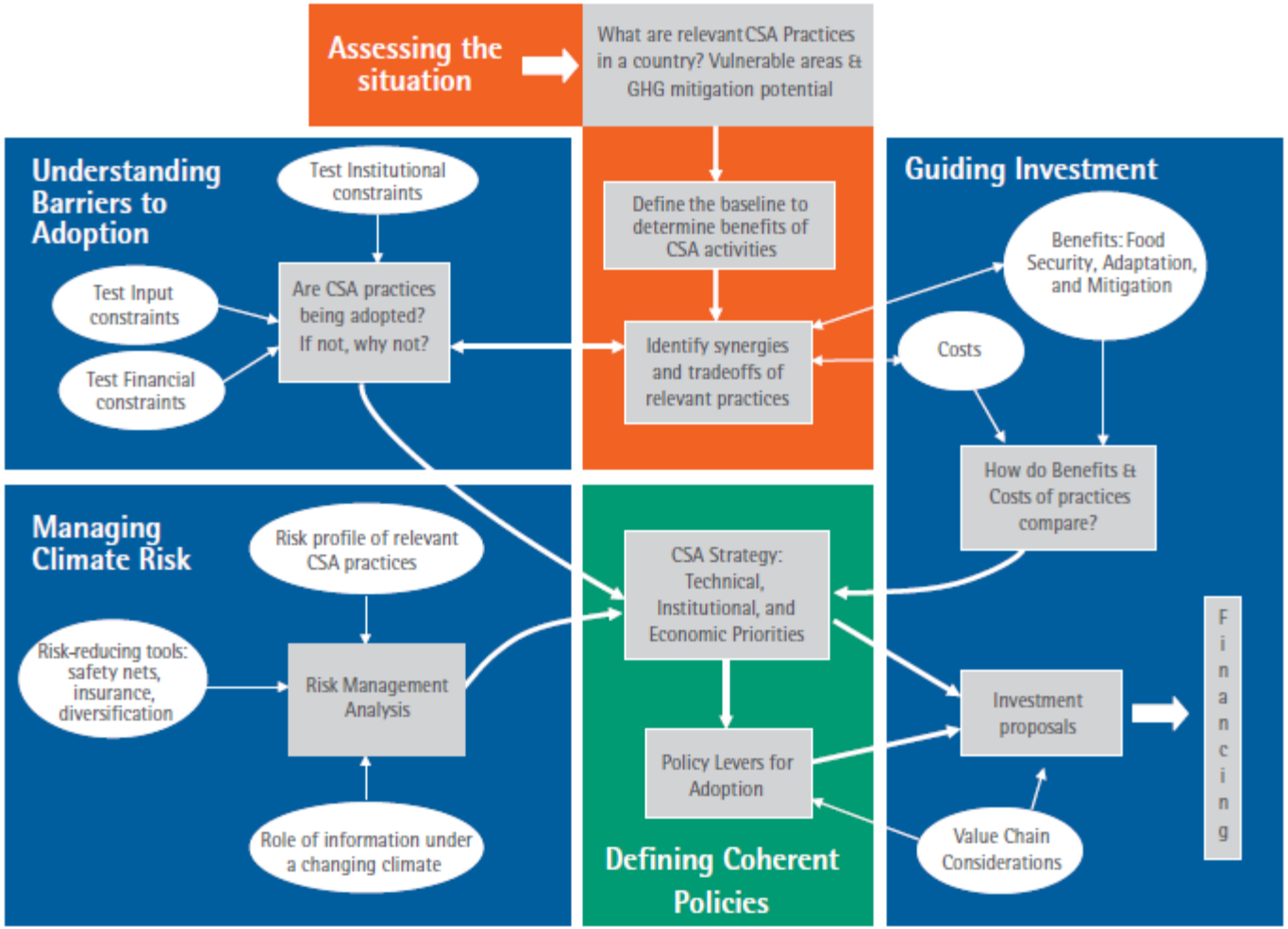
Climate-Smart Agriculture

Capturing ‘low-hanging fruit’:

Adoption of sustainable crop varieties	Farming system adjustment	Crop diversification	Diversifying agriculture systems
			

Promoting synergies with sustainable development

Climate-Smart Agriculture



Integrating practice, policy & finance

Thank you

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Did we meet them?

Thank you

Questions for discussion

1. Should we wait for a climate change assessment to move ahead with adaptation?
2. How should governments and communities use climate change assessments to guide policy and action?
3. What should be the basic elements of a national approach to adaptation and agriculture?
4. How can we better coordinate amongst ourselves to encourage systematic adaptation at the national level?