

# CLIMATE SMART AGRICULTURAL EXTENSION AND ADVISORY SERVICES



“What are the priority climate-change related capacities and needs of national and sub national extension actors amidst calamities



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# CC-how serious is it?

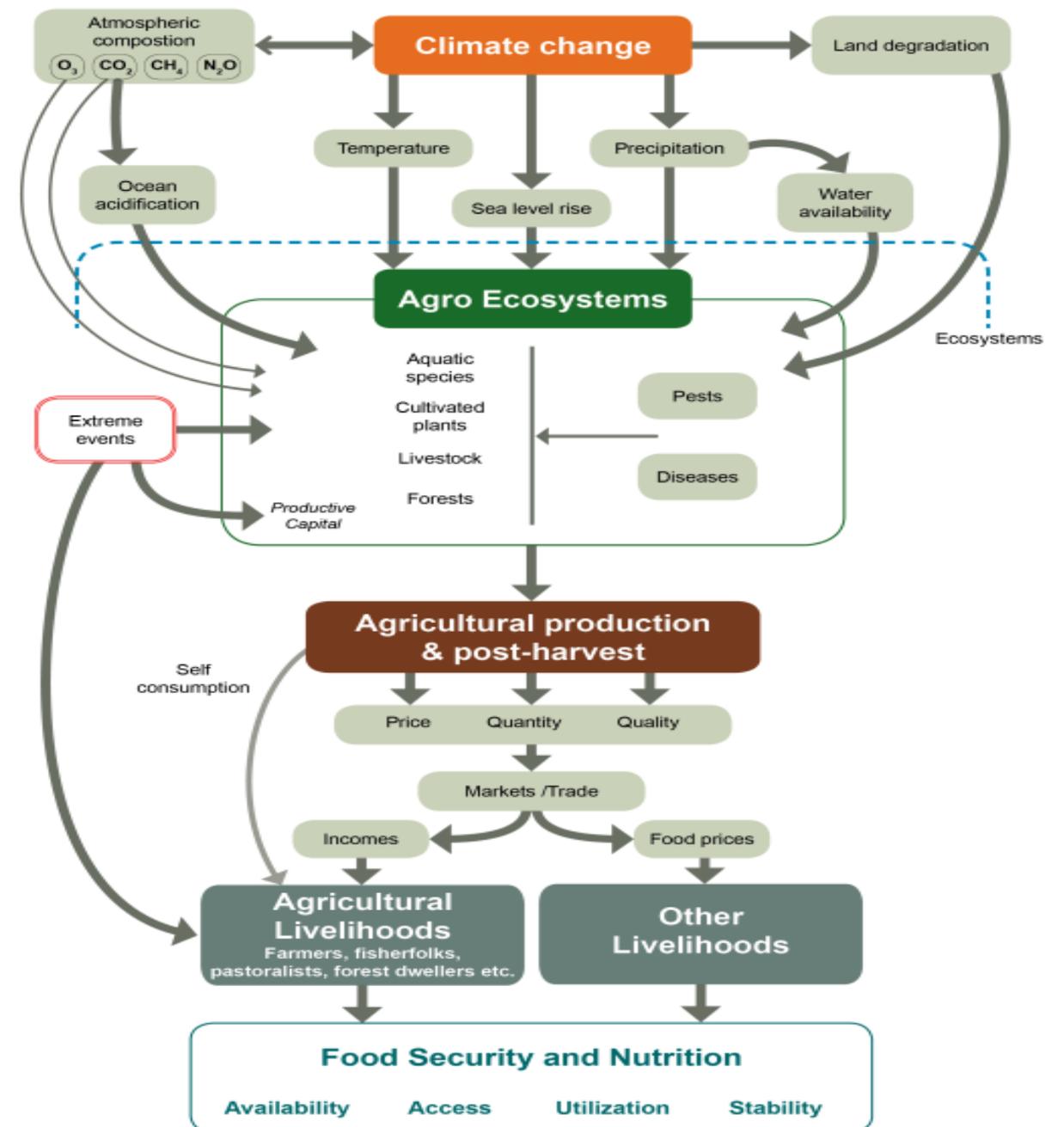
## Cascading effects of CC impacts on FNS

### Results into:

- Physical, biological and biophysical impacts bear on ecosystems and agroecosystems
- Impacts on agricultural production.

### Implications:

- Quantity, quality and price effects,
- Income of farm households
- Purchasing power of non-farm households.
- All four dimensions of FNS are impacted



# Climate Change and AEAS provision

- The linkages between agriculture and climate are pronounced & complex.
- Adequate food production will become more difficult under a business-as-usual scenario, due to adverse impacts on agriculture, requiring spiraling adaptation and related costs.
- Agricultural systems are most sensitive to extreme climatic events such as droughts, floods and hailstorms, and to seasonal variability and changing rainfall patterns.
- Inadequate institutional support is frequently cited as a hindrance to adaptation.

# Climate Change and AEAS provision

- AEAS will increasingly face challenges of addressing vulnerability.
  - Determining what types of adaptive changes farmers need to make
  - When to make them, and ensuring that relevant technologies and modes of dissemination keep up with the need for ever changing climate change adjustments (Simpson and Burpee, 2014).
- The effectiveness of AEAS will be influenced by capacity to identify:
  - Vulnerable regions,
  - Vulnerable groups,
  - Farmers having multiple stressors,
  - Areas which will be doubly exposed,

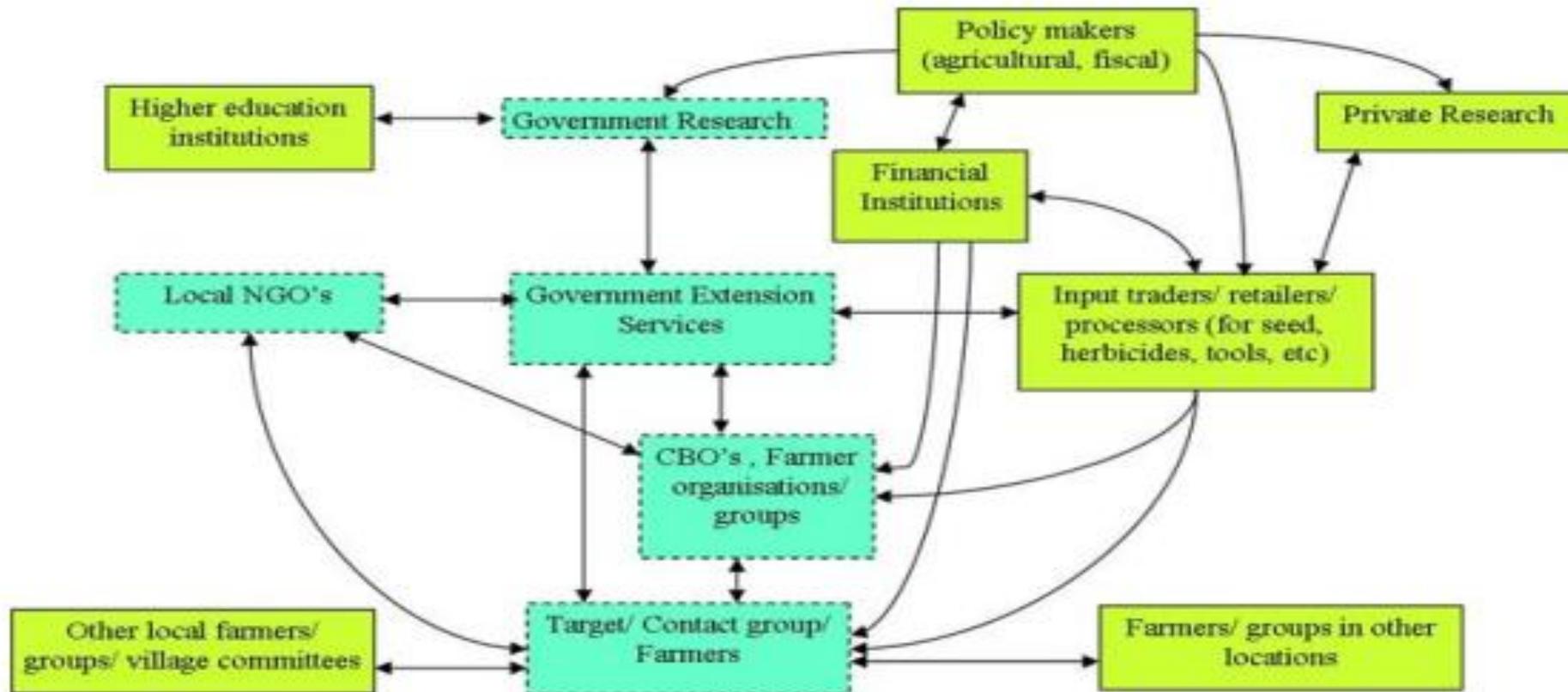
# AEAS challenges and gaps

- To many of the AEAS, CC means seasonal aberrations!!
- **Gaps and challenges**
  - Non-preparedness of AEAS organizations in terms of CC
  - Documenting CC scenarios at grassroot level
  - Extent of adaptation to CC
  - Mapping vulnerable regions
  - Access to real-time data
  - Effective synthesis and interpretation

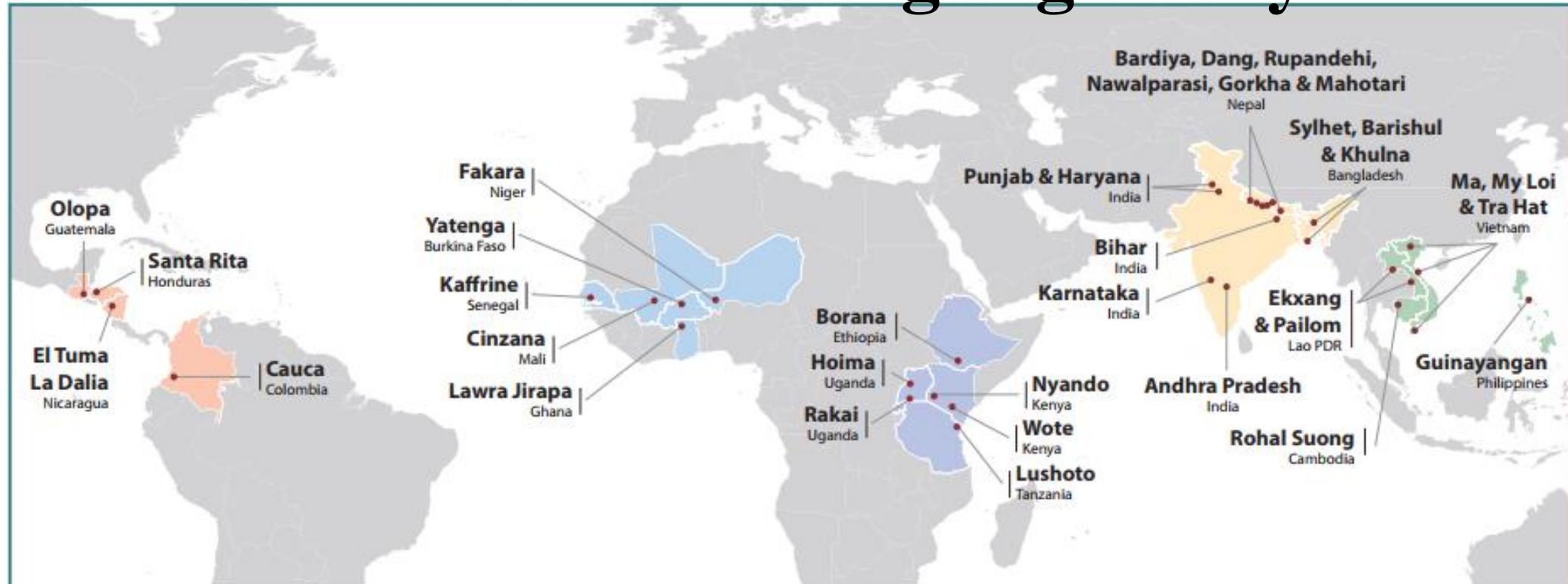
# Climate Smart Agriculture-the magic bullet?

- **Sustainably increasing food security by:**
  - increasing agricultural productivity and incomes
  - Building resilience and adapting to climate change
  - Developing opportunities to reduce GHGs
- **We can achieve this through change in behavior, strategies and agricultural practices of farming households by:**
  - Improving their access to climate-resilient technologies and practices
  - Knowledge and information for increasing productivity, inputs and market information
  - Information and assistance with income diversification
  - Organizing farmers for collective action.

# IP approach to CSA



# Climate Smart Villages-globally



**Latin America** Colombia, Guatemala, Honduras, Nicaragua

**West Africa** Burkina Faso, Ghana, Mali, Niger, Senegal

**East Africa** Ethiopia, Kenya, Tanzania, Uganda

**Southeast Asia** Cambodia, Lao PDR, Philippines, Vietnam

**South Asia** Bangladesh, India, Nepal

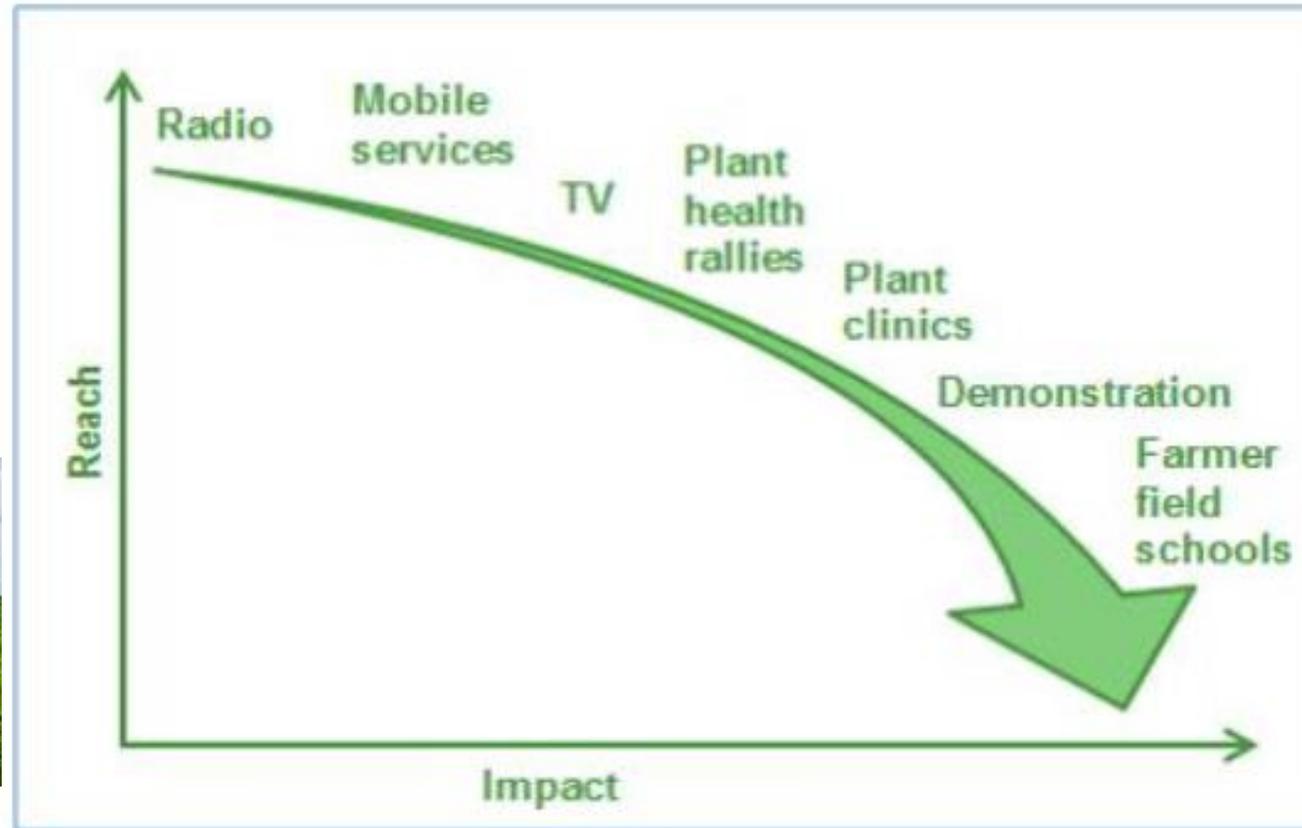
• Climate-Smart Village site

The geographic designation employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of CCAFS concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

# Complementary Extension approaches to CSA

## ICTS-enabled AEAS

- Radios, mobile phones, TVs are useful in both reach and relevance
- Video combines both visual and audio (Davis & Asamoah, 2011), though under utilized in Africa.



Source: CABI

## Advantages-FFS

- Challenges farmers learn and organize themselves and their communities
- It is participatory and demand-led
- Farmers develop skills that allow them to continually analyse their own situation and adapt to changing circumstances (Madukwe, 2006)



## Plant health clinics

- Frontline contact point of the National extension system
- Allows direct info exchange between AEAS and farmers **on any crop problem**

# What needs to be done

- Need to harness co-operation and regional integration in fostering partnerships and building capacity in CSA
- Need to involve farmers in technology development to increase adoption of CSA technologies
- AEAS providers to change perception of farmers-CSA not expensive
- Working around cultural beliefs especially females-Water User Associations rights
- AEAS to work on inclusive approach to CSA; one that both empowers women and generally reflects the differing gender roles and deliberately involves the youths
- An innovation systems approach should be taken that encompasses not only the introduction of new technologies but also organisational and behavioral changes

# Capacity needs of AEAS

- **Change focus:** A shift **from** transfer of skills, technology and knowledge **to** catalyzing and facilitating innovation process.
  - A need for site-specific assessments to identify suitable agricultural technologies and practices needed for CSA.
- **AEAS to devise more technological solutions in adapting to CC**
  - Using historical experiences ( & ITK)
  - Identifying lessons from other regions (at national and international levels) that are already affected by adverse climatic conditions
- **Need for skills in using participatory methods and approaches such as**
  - Participatory technology development,
  - Enabling rural innovation
  - Innovation platforms to develop and disseminate technologies and encourage innovation through multiple stakeholder engagement

# Capacity needs and adjustments of AEAS

- **Developing linkages between agricultural researchers and AEAS providers:**
  - For researchers to tap local knowledge
  - Have a clear understanding of farmers' needs and problems,
  - Obtain feedback on how technological interventions are working.
- CC adaptation requires changes in NRM at the landscape level-AEAS providers need to adjust to working at larger scales
- Need fast track institutional and sectoral extension services provided on a PPP arrangement for agric, forestry, fisheries and env't.

# Capacity needs and adjustments of AEAS

- **Skilling AEAS in soft skills-not just giving packages and blanket recommendations**
  - Capacity in ‘soft skills’-e.g. communications, facilitation, co-learning, sensitivity to gender and diversity issues, managing power and conflict dynamics, etc.) and in specialized areas such as marketing-plus inclusion in extension curricular
- **Monitoring, advocacy and policy support**
  - AEAS-active involvement in monitoring the effects of CC on agriculture and the program of CSA efforts in close collaboration with Farmers and scientists
- **The need for extension reform challenges of developing pluralistic CS rural advisory systems**
  - To handle the many actors in CSA efficiently, there is need for effective RA systems encompassing education, research, agribusiness support; need for regulatory and policy structures that govern how the systems operate and an enabling environment



**Thanks for the audience**

