Agriculture and Climate Change

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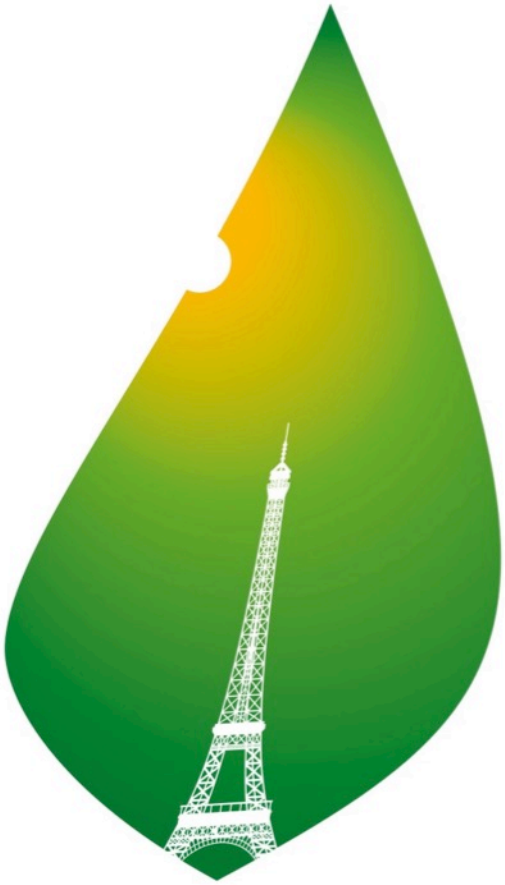
Background

- Global food supply needs to increase by 60 percent from 2006 to 2050
- Agriculture is affected by climate change
  - Increase/decrease of production
  - Increased variability of production
- Agriculture drives climate change
  - Emissions from agriculture, forestry and other land use account for roughly 24% of global GHG emissions

This means that agriculture needs to overcome three interlinked challenges:

- Sustainably increase agricultural productivity to meet global demand
- Adapt to the impacts of climate change
- Contribute to reducing the accumulation of GHGs in the atmosphere



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Background (cont.)

- 'Little progress' to address climate adaptation and mitigation made since COP17 (2011)
- COP23 (2017) paved the road for more consolidated climate action in the agricultural arena
  - This is now reflected in the parties' Nationally Determined Contributions (NDCs)
- Donors have also recognised the need for increased climate financing, which has led to:
  - Increase in ODA allocation for climate change
  - Creation of dedicated funds (e.g. GCF)

These developments open up exciting opportunities for CABI to help make agricultural systems become more resilient to climate change (and contribute to climate change mitigation)

CABI's contributions

- CABI can support countries to fulfil their NDCs
- CABI's core expertise in…
  - Knowledge creation, management and dissemination
  - Strengthening capacities of national stakeholders
  - Research

  …are of high relevance for climate resilience
- CABI's broad network of partners (at global, regional, country-levels) enhances the potential for innovation and implementation of climate responsive action

CABI's vision

CABI envisions a world in which the agricultural sector is able to supply **sufficient**, **safe**, and **nutritious** food, and is embedded in a healthy and climate resilient landscape with clean water and air, healthy soils, and functional ecosystem services.

- **Sufficient food**: because climate change affects global crop yields
- **Safe food**: because climate change can affect pests and diseases and pest management strategies
- **Nutritious food**: because climate change can impact nutrient levels in important staple crops
- **Healthy ecosystems**: because intact ecosystems provide the best defence against climate change

CABI's approach

- For this vision to become a reality, CABI recognises the need for action on three interlinked stakeholder levels:
  - **Farm/landscape level**: Farmers need to implement locally-adapted best management approaches and use climate-friendly technologies
  - **Supporting function level**: Coordinated support from various sources, including extension and research, is needed to enable farmers to make informed decisions
  - **Enabling environment level**: To catalyse adoption of climate adaptation/mitigation actions, appropriate policies/incentives, financial services, funding mechanisms, etc. are important
- CABI also recognises the need to work on multiple geographical scales, i.e. global/regional/country

CABI goals

- To be able to deliver, CABI is working towards three overarching goals at corporate, project/programme, and member-country levels

Goal 1: Corporate

Strengthened coordination and delivery of CABI's work on climate change adaptation and mitigation

Goal 2: Project/programme

Enhanced sustainability and climate resilience of agricultural systems, their dependant livelihoods, and surrounding environments

Goal 3: Member country

Enhanced capacities of member countries in climate change adaptation and mitigation

Goal 1: Strengthened coordination and delivery of CABI's work on climate change adaptation and mitigation

- Further build the organisation's core expertise in climate change
- Develop CABI's expertise in new topics of relevance to agriculture and climate change
- Ensure that climate change is reflected in all major projects/programmes
- Develop organisation-wide climate change strategy
- Invest in order to obtain full accreditation for dedicated climate change funds
- Continue CABI's engagement with key alliances (e.g. Global Alliance for Climate Smart Agriculture; regional CSA alliances)

Example 1: Engagement with Global Alliance for Climate Smart Agriculture (GACSA)

- Contribution to GACSA compendia on ‘Supporting agricultural extension towards ‘Climate-Smart Agriculture’

Available at: http://www.fao.org/3/a-bl361e.pdf

- Developed the concept of ‘Climate Smart Pest Management’ (CSPM)

Available at: http://www.fao.org/gacsa/en/

Goal 2: Enhanced sustainability and climate resilience of agricultural systems, their dependant livelihoods, and surrounding environments

- Promote integrated crop management approaches (with special focus on climate smart pest management)
- Build institutional capacities of extension support systems (e.g. through Plantwise)
- Provide higher education programmes for agricultural professionals and policymakers
- Promote climate-resilient production of agricultural commodities
- Encourage agricultural diversification
- Capitalise on CABI's expertise in development of information resources and ICT tools
- Lead research projects aimed at improving understanding and forecasting of climate change impact on pests and pest management strategies
- Increase commissioning and publication of climate change related books/ebooks

Example 2: Climate Smart Villages in South East Asia

- Collaboration between CABI-SEA and CGIAR-led Climate Smart Village (CSV) approach

- CABI's contributions in Climate Smart Villages in Vietnam, Laos, and Cambodia:
  - Increased awareness to consider pest management as a critical component in CSVs
  - Developed and promoted pest smart practices for increased resilience
  - Better outreach to farmers through integration of plant clinics
  - Development of a pest smart manual

Goal 3: Enhanced capacities of member countries on climate change adaptation and mitigation

- Promote interaction between CABI and UNFCCC focal points
- Facilitate linkages between countries and regional CSA-alliances
- Joint development of project and programmes
  - Support member countries in accessing climate financing
  - Support countries to implement their Nationally Determined Contributions

Example 3: Climate change knowledge project in India

- National partners approached CABI for support to develop project idea for Green Climate Fund
- Project aims at supporting implementation of State Action Plan on Climate Change
- Key problem: Smallholder farmers in Telangana State face a number of barriers to adoption of climate resilient technologies and making use of decision support tools to adapt to climate change
- CABI's contributions is expected to be in the area of:
  - Linking relevant stakeholders (public and private)
  - Identifying existing tools and technologies
  - Facilitating the scale-up of decision support tools for extension workers/farmers
  - Strengthening and broadening dissemination channels to increase uptake of climate resilient innovations

To remember during breakout groups

- What ongoing country/regional-level initiatives on climate adaptation/mitigation offer potential for collaboration?
- How can CABI link with on-going climate change adaptation/mitigation initiatives?
- Aside from the larger, international dedicated climate-related funding sources, are there any national/ regional donors that could be of interest for CABI and its member countries
- With CABI's three goals and proposed intervention areas, do you think that CABI needs to consider other member country priorities?

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Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

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