

# Climate Smart Agriculture: Using Best Practices for adaptation and Mitigation in Asia

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DIALOGUE

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Agriculture contributes **10-12 %**  
of global GHG emissions

**Not Agriculture BUT !!!**  
Food Production & Food security  
were mentioned in the Paris Agreement

Agriculture & land use appeared to  
be key strategies for mitigation &  
adaptation in majority of INDC's

INDCs Commitment  
**80%** agricultural **Mitigation**  
**90%** agricultural **Adaptations**

Adaptation , Mitigation & Sustainable Food Security  
**Does a triple win solution exists???**

**TWO DEGREES CELSIUS COULD DECIDE OUR FATE**

# Climate Smart Agriculture



**FOOD  
SECURITY**

**ADAPTATION**

**MITIGATION**

# Climate Smart Agriculture: **Need for action !**

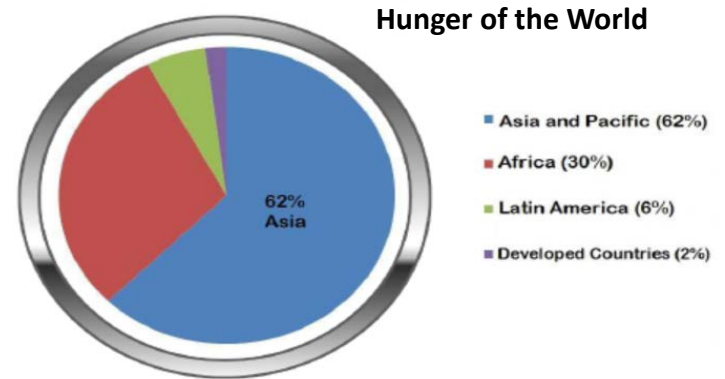
## **Food security calls for Transition to Agriculture Production Systems**

**Systems which are**

**More productive**

**Use inputs more efficiently**

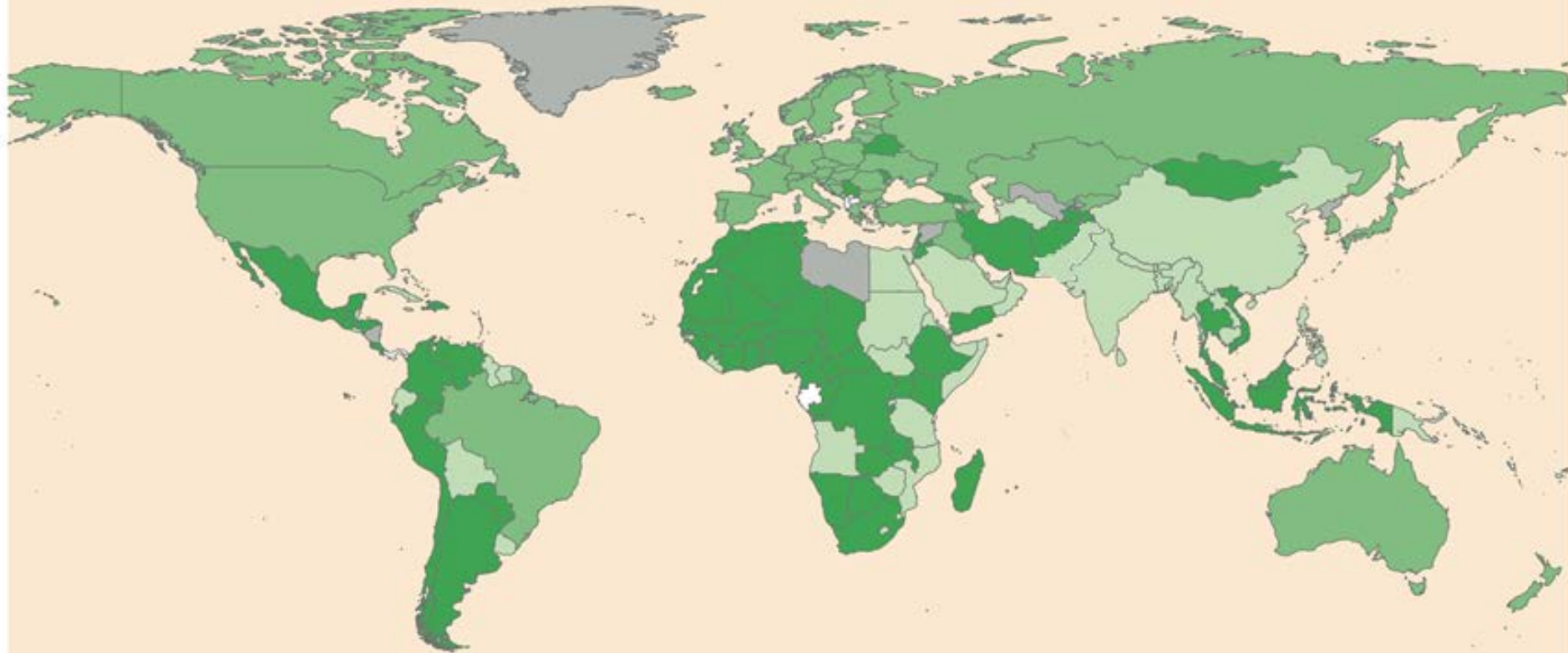
**Have less variability and greater stability in their outputs  
resilient to risks, shocks and long-term climate variability**



**9**  
**1**

Each day 800 million people go hungry

## Mitigation Targets & Adaptation Priorities in Agriculture



- Mitigation target and adaptation priorities include agriculture
- Mitigation target includes agriculture
- Adaptation priorities include agriculture
- INDC does not cover agriculture
- No INDC

(Source CCAFS)

# Adaptations in Agriculture

**Country driven, forward looking,  
bottom up approaches**

**No Regret Options**

**More crop per drop technologies**

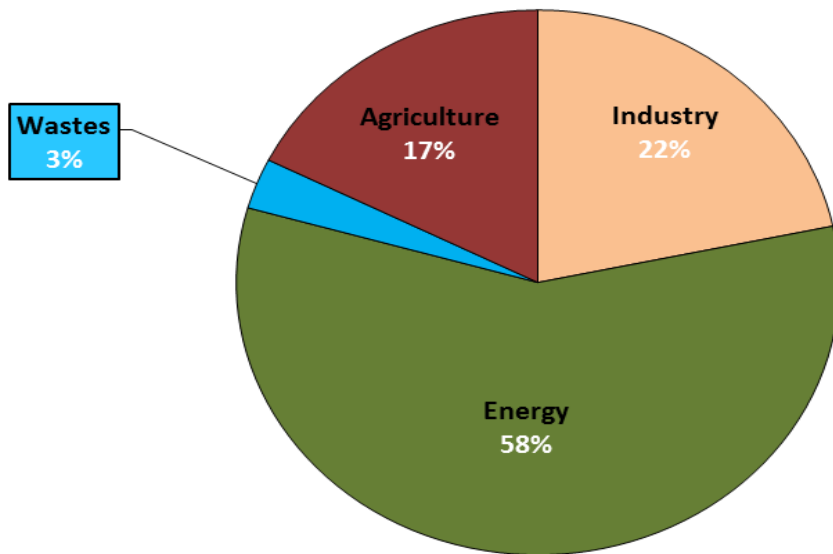


# WHY is Climate Smart Agriculture Important

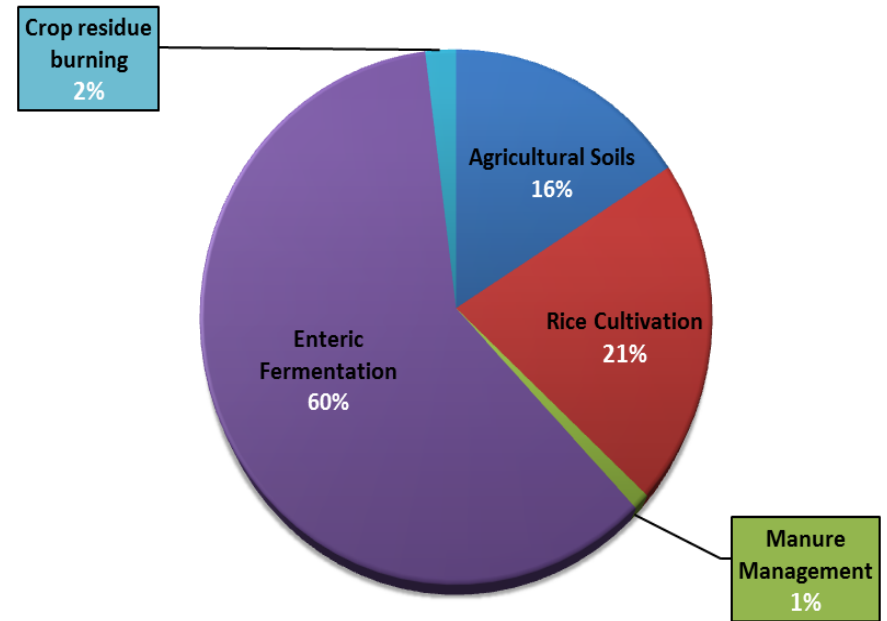
## Mitigation

It will be Impossible to stay within either a 1.5 or 2 degree C target if Agriculture does not contribute to emissions reductions.” (CGIAR)

GHG Emissions from Different Sectors - Asia

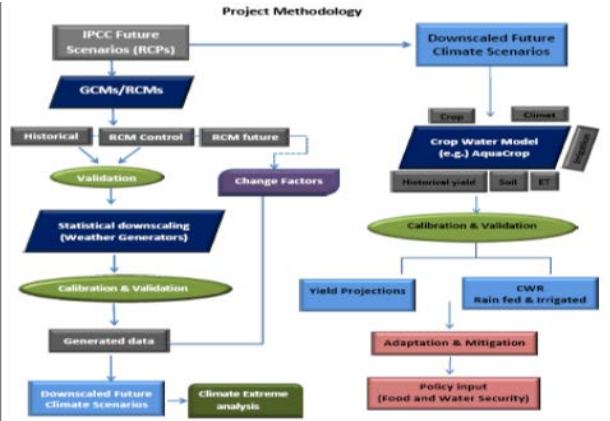


Agricultural Emissions from Sub Sectors - Asia

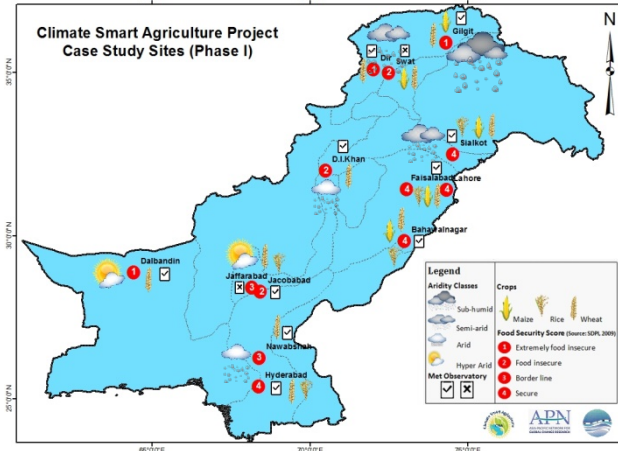
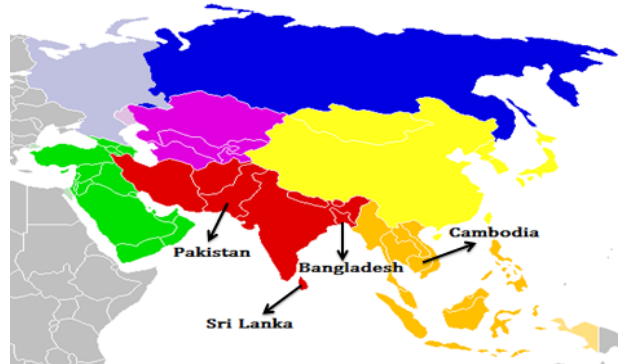


“Climate smart agriculture through sustainable water use management: Exploring new approaches and devising strategies for climate change adaptation in South Asia”

(CAF2015-RR12-NMY-Shaheen)



## Project Partners



## Project Objectives

To provide a conceptual framework to address food security under conditions of water scarcity

To introduce new, well tested approaches for the construction of high-resolution climate change scenarios contributing to filling of data gaps in the region

To mainstream climate change adaptation and mitigation related to agriculture and crop water management in developing countries of Asia pacific region

### Major Events Year I

Date/Venue	Event	Estimated No. of participants
10-12 November 2015 Islamabad, Pakistan	Project inception meeting	50
May 30-June 04, 2016 Kandy, Sri Lanka	Training Workshop	30

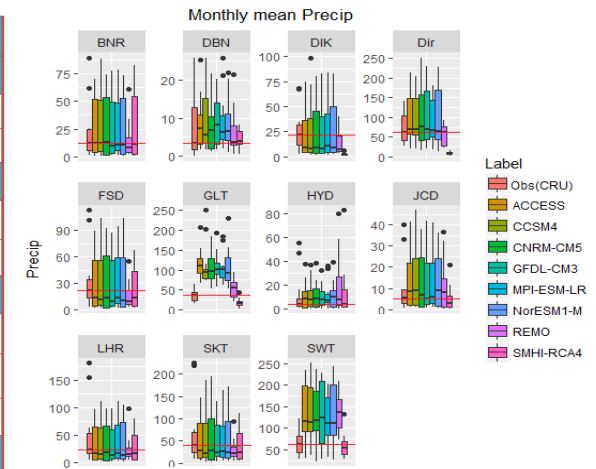
### Major Events Year II

Date/Venue	Event	Estimated No. of participants
22-24 Feb, 2017 Dhaka-Bangladesh	Midterm Research Review workshop	25
May 16-20, 2017 Islamabad-Pakistan	Final Workshop	30
17 July, 2017 Country	National Seminars	150

## Milestones and Deliverables



Tasks	Lead responsible	collaborators
<b>Task 1: Data Collection &amp; Site selection</b>		
1.1 Data Collection	All partner countries	
1.2 Site selection	All partner countries	
<b>Task 2: Capacity building training</b>		
2.1 Statistical downscaling	Pakistan, Sri Lanka, UK	All partner countries
2.2 Crop simulation modelling	Pakistan, Sri Lanka,	All partner countries
<b>Task 3: Statistical Downscaling</b>		
3.1 GCM/RCM data acquisition and evaluation	Pakistan	All partner countries
3.2 Development methodology & implementation	Pakistan, UK	All partner countries
3.3 Climate extreme analysis	Pakistan	All partner countries
<b>Task 4: Climate change impact analysis</b>		





# Next Steps.....Domesticating Paris Agreement

## INDC's Implementation

- **Political will and effective governance**
- **Long-term mitigation strategies**
- **Integrated adaptation planning**
- **Climate finance frameworks**
- **Measurement, reporting & verification (MRV) systems**

**Thank You!**