CGIAR

RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security

CCAFS

Official UNFCCC COP18 Side Event

Lessons learnt from scaling-up actions on food security, adaptation and mitigation

Thursday, 29 November 2012
18:30 - 20:00

Qatar National Convention Centre
Room 4

CGIAR

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Agricultural and food system successes in adaptation and mitigation – climate-smart agriculture

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Background

- UNFCCC process very slow – we need action on agriculture on the ground now
  - What can be done at scale?
- Agriculture is the sector where adaptation and mitigation are intertwined
  - What are the CSA examples that demonstrate what can be achieved at scale?

Selected 14 cases

- Cases had to have some connection with climate change, i.e. covered one or more of following:
  - Climate risk management
  - Adapting to longer term change
  - Sequestering CO2
  - Reducing GHG emissions
- 10's of thousands of households or hectares
- National policy initiatives focused on climate

Category	Case studies
1. Policies/national strategies – CSA major aim	• Brazil: Low Carbon Agricultural Programme • Australia: Carbon Farming Initiative • Denmark: Agreement for Green Growth
2. Policies/national strategies – CSA side effects	• Niger: Community Action Plan • Morocco: Plan Maroc Vert
3. Climate risk management	• India: Weather-based Crop Insurance Scheme • India: Integrated Agrometeorological Advisory Services • Ethiopia: Productive Safety Net Programme
4. Agricultural initiatives with strong link to climate change adaptation and mitigation	• Vietnam: System of Rice Intensification • Niger: Farmer Managed Natural Regeneration • Africa: Drought Tolerant Maize for Africa • Kenya: Agricultural Carbon Project

Key lessons #1: ***Tradeoffs can be avoided***

- In general, trade-offs were avoided

  e.g.-Niger higher tree biomass vs. higher crop yields

- Adaptation to current risks was ensured,

  e.g.-PSNP, protecting current assets

Key lessons #2: ***Need cost-effective and comparable indices for measuring GHG fluxes and adaptive capacity***

- Many assumptions made about GHG benefits and about improved adaptive capacity – few measurements
- GHG measurements in smallholder systems complex

Example for #2: ***SAMPLES aims to quantify greenhouse gas emissions and removals at field, whole-farm, and landscape scales***

5year project involves field-testing the protocol

-developing examples of pro-poor mitigation solutions in key agro-ecosystems in the developing world.

-Work initiated in the crop-livestock systems of East Africa and irrigated rice cropping systems of Southeast Asia

Government of Canada/Department of Environment-supports work of the Global Research Alliance on Agricultural Greenhouse Gases

Key lessons #3: ***Strong government support is crucial***

- Changes in legislation (Denmark, environmental policies to reduce N fertilizer application rates)
- Government-administered programs (LACP-Brazil, Morocco Green Plan)
- Provision of finance and incentives (PSNP, LACP, USD 1.5b & lines of credit for farmers)

Key lessons #4: ***Upfront costs may be substantial***

- E.g. Brazil Fund: $ 1.5 billion, Chinese program US$ 28.8 billion over ten years
- e.g. Costs related to:
  - Establishment of new institutions
  - Provision of financial incentives
  - Provision of social safety nets
  - Subsidies to risk management
- National budgets crucial
- Donor agencies in many cases
- Private sector in a few cases: HT Canola
- Future: Green Climate Fund?

Key lessons #5: ***An iterative learning approach with investment in capacity strengthening is critical***

- e.g. the second phase of Nigerien Community Action Plan built on lessons learnt in first phase
- 'innovation system' approach rather than a 'technology transfer' approach – i.e. Beneficiaries strongly involved in testing
  - e.g. Farmer field schools in Vietnam
- **Invariable multi-partner initiatives**
- Capacity strengthening crucial
  - e.g. training in Banks for the Brazil Fund

Example for #5: ***Capacity for science-policy engagement that informs decision making across local, national and regional scales***

CCAFS Regional Learning-Partnerships; Building capacity for evidence informed policymaking

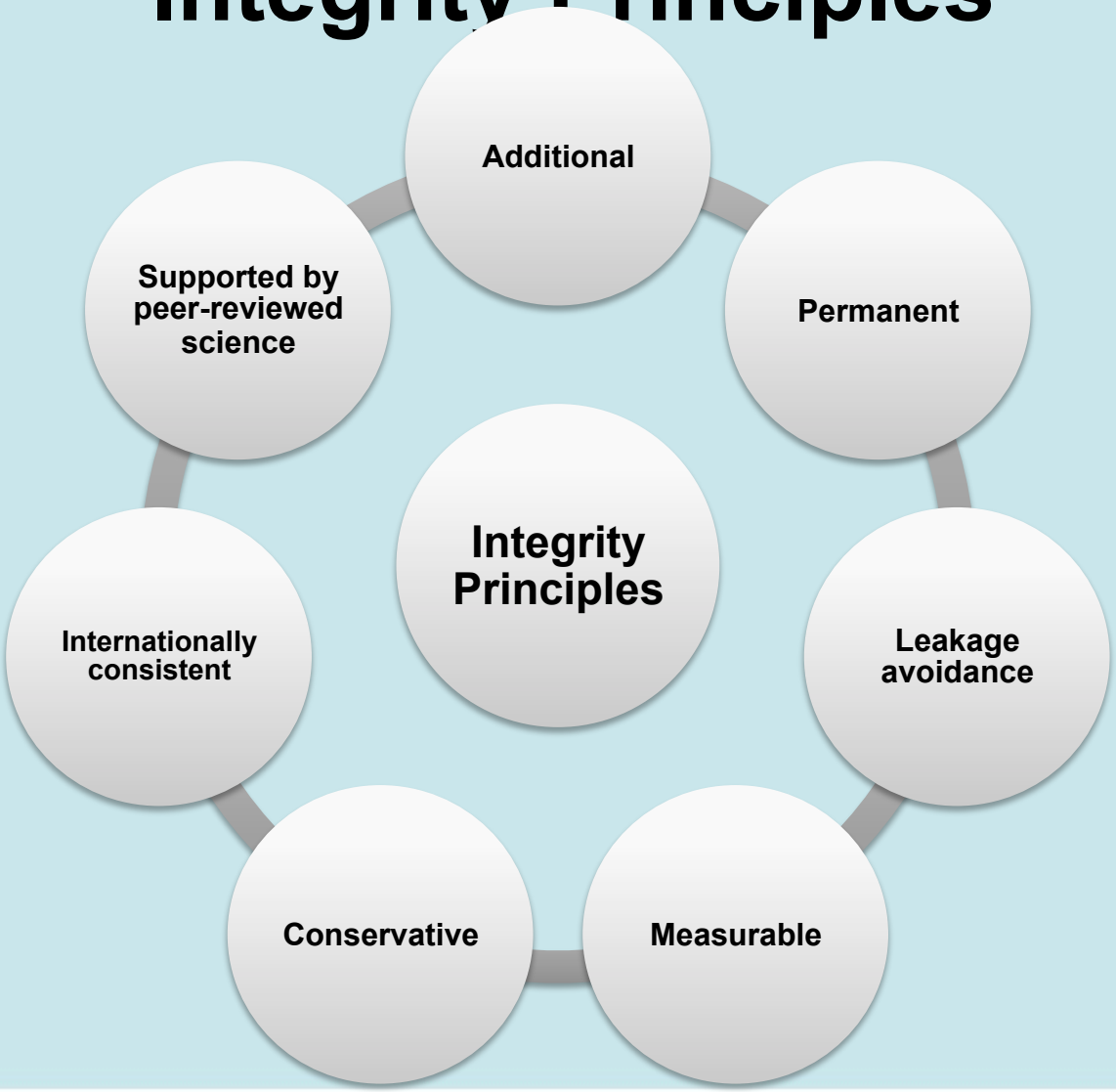

Thank you

The Carbon Farming Initiative

Carbon Farming Initiative (CFI)

- Agriculture generates around 18 per cent of Australia's emissions (on average since 1990)
- Carbon Farming Initiative (CFI) legislated in mid 2011 to drive abatement through offsets – in sectors not covered by the carbon price
- Landholders can receive carbon credits for:
  - Reducing emissions
  - Increasing carbon stores
  - Kyoto and non-Kyoto compliant activities
- People and businesses can buy credits from landholders to offset their own emissions

Integrity Principles



CFI and carbon price mechanism

- Entities can meet carbon price obligations with Kyoto eligible CFI credits
- CFI carbon credits are called ‘Australian Carbon Credit Units’ (ACCUs) – each unit = 1 tonne of abatement
- Up to 5% fixed price period – 2012/12 – 2015/16
  - 100% for landfill
- Uncapped in floating price period

CFI – Legislated scheme

- Independent Administrator – established 02 April 2012
- Monitoring, reporting and verification
  - Project crediting ad post
  - Administrator can compel audits
- Measures to prevent fraud
- Compliance penalties

Offset Methodologies

- Developed by government and non-government
- Assessed by Domestic Offsets Integrity Committee (DOIC)
  - Independent experts
  - Public consultation
  - Makes recommendations to Minister
- Approved by Minister
- Legislative instruments

Avoiding adverse impacts

- ‘Negative’ list
  - Projects that risk significant adverse impacts for water, biodiversity, land access for agricultural production, local communities or employment.
- Must meet environment, planning and water requirements
- Consider regional NRM plans
- Co-benefit index – biodiversity, indigenous communities

Additionality

‘Positive’ list

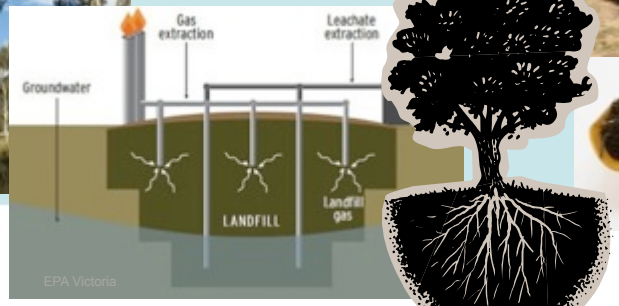
- Activities that meet the objectives of the CFI and go beyond common business practice.
- Identified through stakeholder consultation, surveys.
- Minister approves activities considering the advice from the DOIC
- No crediting of projects that are required by regulation
- Methodologies must address a positive list activity
- Currently 15 positive list activities

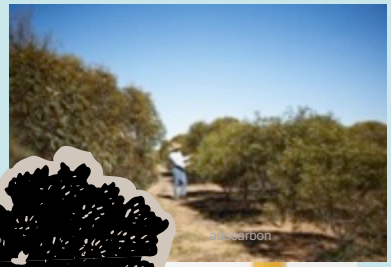
Permanence obligations

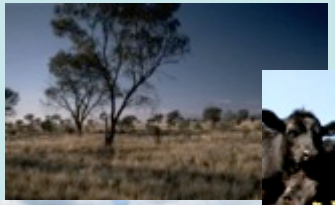
- Maintain carbon or hand back credits for 100 years
  - For biosequestration projects only.
- Permanence requirement ‘runs with the land’
- Re-establish carbon after a fire or drought.
- Risk of reversal buffer
  - temporary losses whilst carbon is re-established
  - wrong doing that can’t be remedied.
- Carbon maintenance obligation

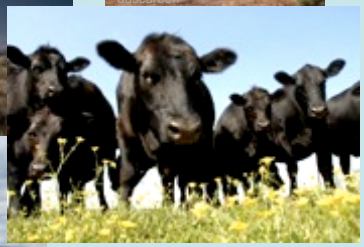
Examples of Eligible Activities

- Reforestation
- Revegetation
- Native forest protection
- Managed regrowth forests
- Rangelands restoration
- Savanna fire management
- Landfill gas flaring
- Soil carbon
- Fertiliser management
- Manure management
- Reduced enteric fermentation









thinkchange
www.climatechange.gov.au

Links to Australia's national accounts

- Measurement and estimation must be consistent with national accounts
  - UNFCCC reporting guidelines
  - IPCC Good Practice guidance
- Verified site specific data will feed into national accounts as part of continuous improvement
- Step-wise process for new estimation approaches
- CFI abatement subject to UNFCCC ERT

Questions?

A Case Study of

Good Practice in Climate Services from India

Kalpana Venkatasubramanian

COP 18, Doha

29 November 2012

IRI

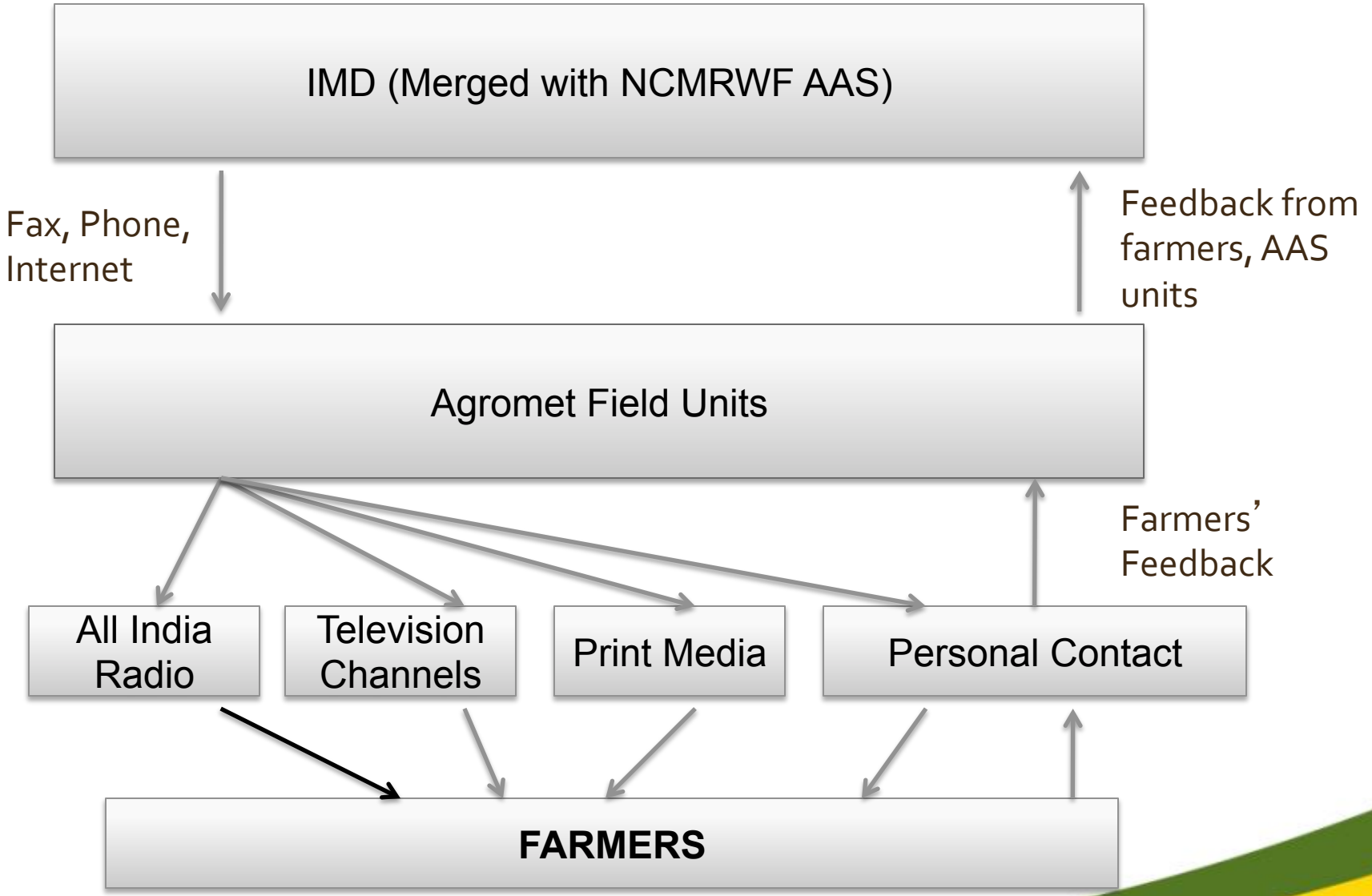
CGIAR

Earth System
Science Partnership

Background: History of India AAS

- NCMRWF bulletins to farmers in 127 agroclimatic zones, through Agrometeorological Field Units (AMFU) in SAUs, their research stations, ICAR institutes
- 2008 – District level advisories initiated
- 2011 – Experimental block level forecasts
- 2012 – Plans to scale up from 3 to 10 million farmers

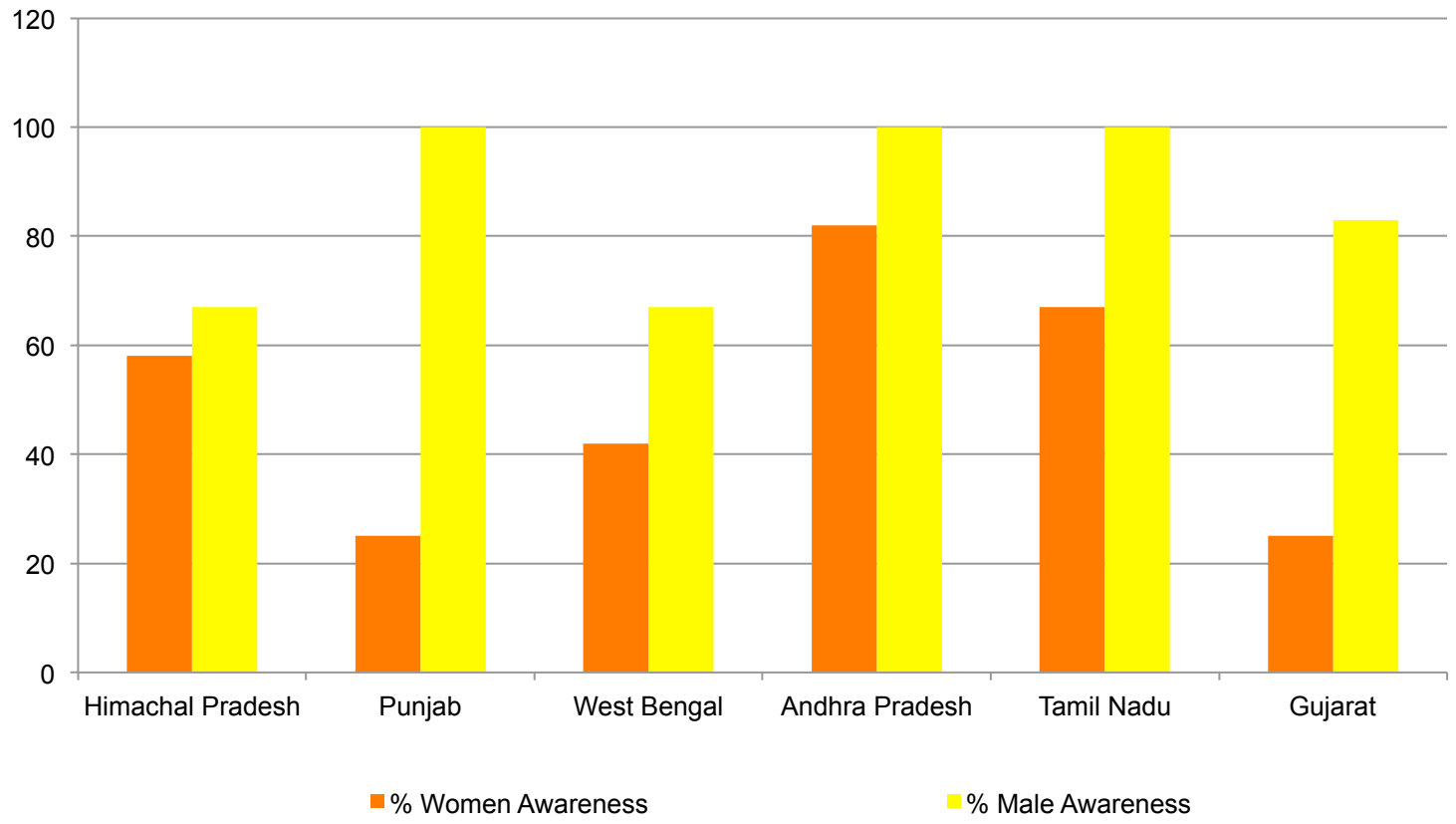
Background: Communication Channels




INDIA
OUTLINE MAP WITH STATES
HIMACHAL PRADESH
PUNJAB
NEW DELHI
GUJARAT
WEST BENGAL
ANDHRA PRADESH
TAMIL NADU
Arabian Sea
Bay of Bengal
INDIAN OCEAN
International Boundary
State Boundary
Map not to Scale
Copyright © 2012 www.mapsofindia.com

Findings

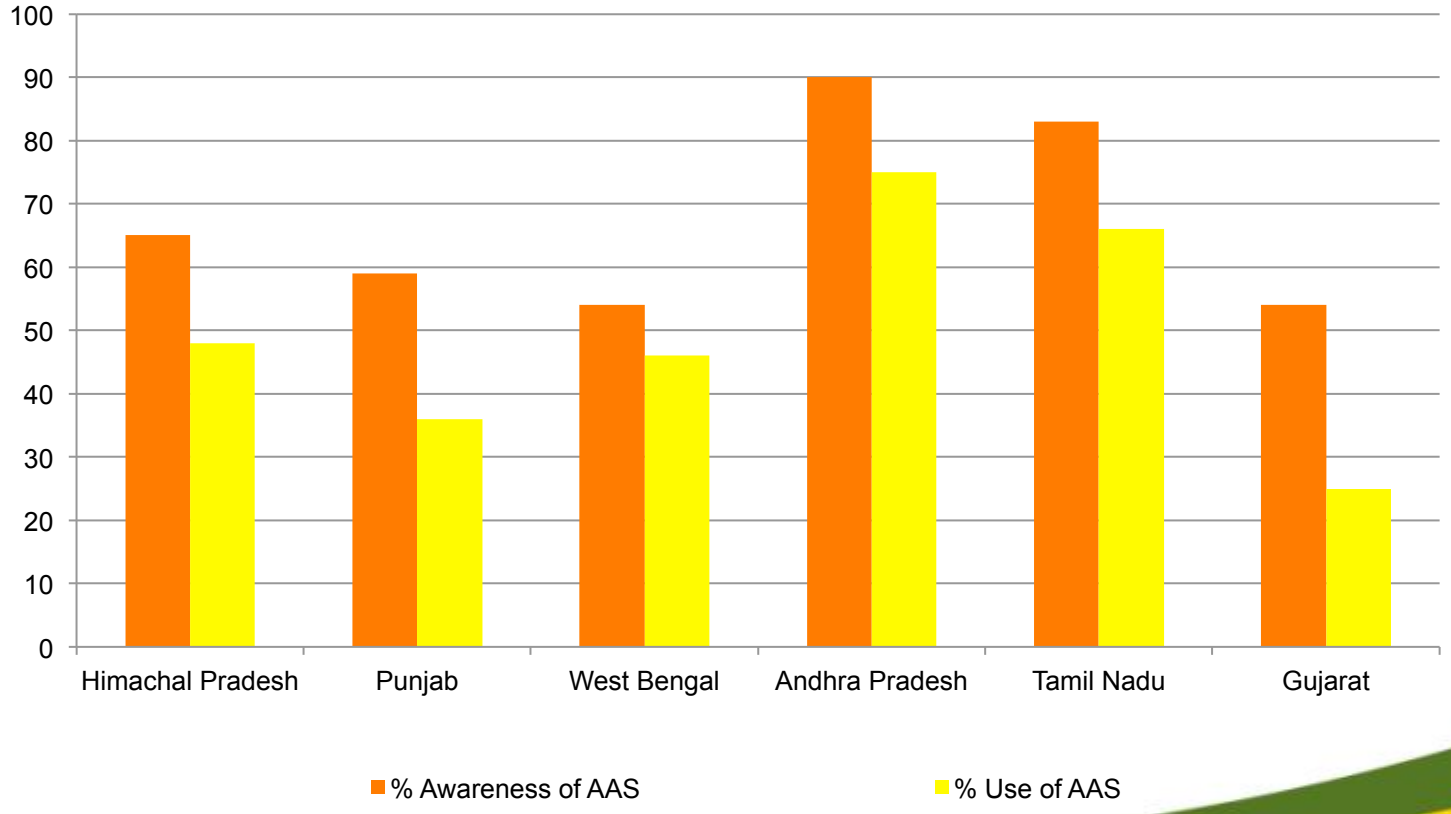
State-wise gender disaggregated AAS awareness amongst Farmers (in %)

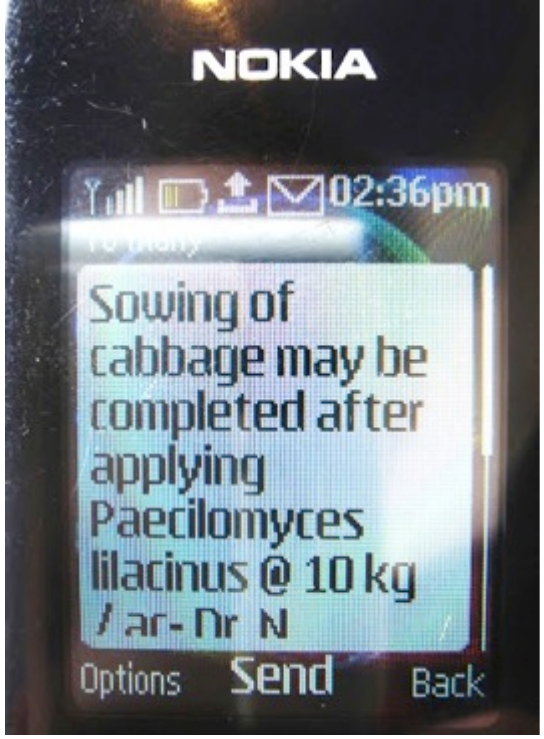


Findings

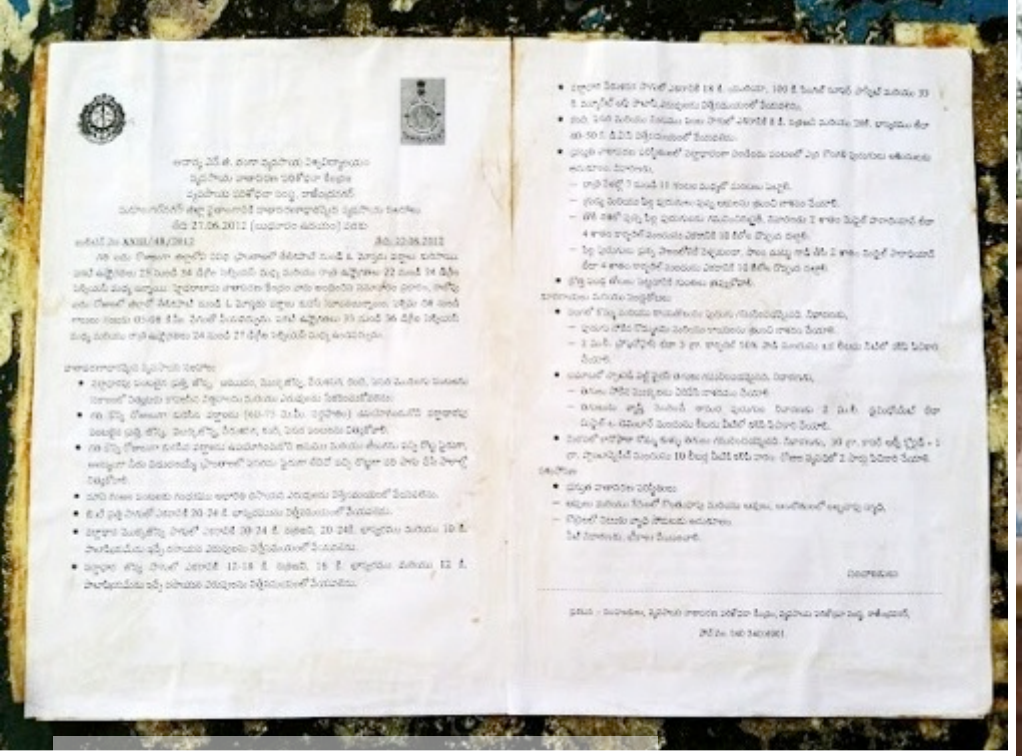
Clear distinction between farmers knowing about AAS and being able to use it for their purposes

State-wise AAS awareness and use amongst farmers (in %)





Farmer in a village in Tamil Nadu displaying the SMS he received with agro advisories for the week



AAS Bulletin outside milk collection station in a village in Andhra Pradesh. AAS Bulletins in vernacular are put up in 5 commonly visited places in the village

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- ICRISAT staff at Patencheru, Andhra Pradesh
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- Field Team Facilitators
- CCAFS Team at IRI and New Delhi
- All the farmers and their families who welcomed us into their lives and took time out to speak to us