



## Working Group: Environment, Climate Change and Sustainable Development

### ***Rethinking Boundaries and Inequalities Related to Climate-Resilient Development: Challenges for Resource Use and Climate Governance***

***Session 1: Tuesday, 22 August, 11.15-13.00***

***Climate Governance and Actors: Lessons Learned for Innovative Change Management - I***

## **Uptake of agro-met service information and social arenas**

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# Summary

**Presence of agro-met information services, the subscription and uptake of such services by farmers in three rural villages in Maharashtra, India are presented.**

**Subscription / access seems to be dependent upon socio-economic level and certain village contextual factors**

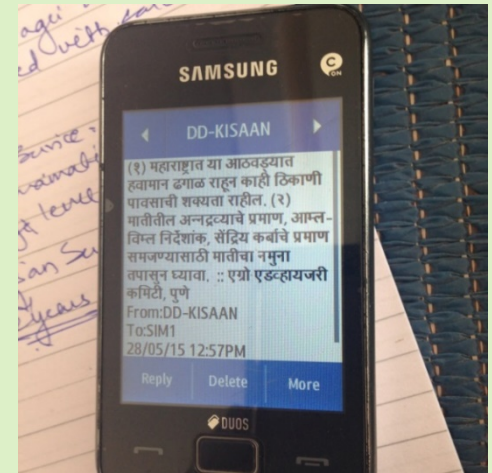
**Agro-met information is in general not perceived to be salient nor tailored; informal and formal arenas are important for contextualizing and interpretation of information.**

# Uptake of agro-met service information and social arenas

Farmers in Maharashtra, India express frustration about the unpredictability of weather events and the traditional systems which are no longer to be trusted.

In India agro-met information are disseminated mainly through sms, and phone messages by public, public and public-private and private service providers to rural farmers.

Reportedly more than ten million farmers received agro-met information, yet studies show that there are constraints related to access, understanding and capacity to respond.

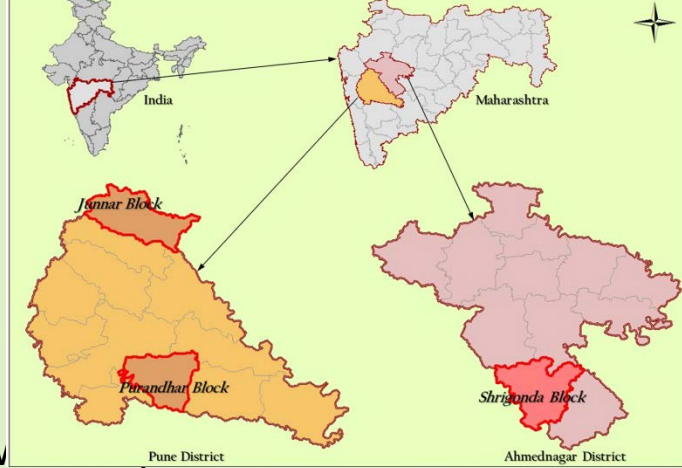


Agro-met information: weather forecasts coupled with agricultural advisory

# Methods

Field work in 3 case study villages in the state Maharashtra in 2015-2016.

- Focus group discussions
- Individual semi-structured interviews with farmers men/women, large/small scale, subscribers / non-subscribers, and with agents of the climate service providers.
- A survey including 17 questions on of 89 subscribing farmers across the three villages. The questions included aspects; *agricultural decision making situations, information sources for decision making, uptake of agro-met information in decision making.*



## Agro-met service providers in the study

Public (IMD GKMS) /KVK (district level advisories *since 2008*)

Public-private (IFFCO Kisan – a partnership of fertilizer cooperative IFFCO and private telecom company Airtel) and Star Global Resources

Private (RML AgTech)

Public - NGO (WOTR and IMD)

The presentation is based on work in the project GovClim

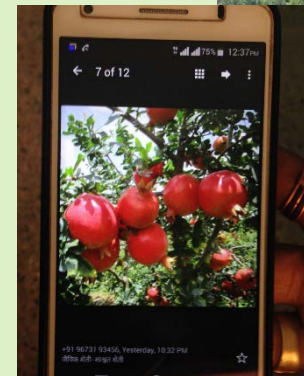
# Three case study villages in the state Maharashtra, India

Agriculture the main occupation in the state, 58% rural areas; A drought prone state, variable rainfall, predictions are - monsoon rainfall will be more unpredictable.

Agro-met information services in the case villages the last four to five years; only the private providers had agents in villages.

Low number of subscribers, only **about 4 %** in each village, no women subscribers

*Uptake of agro-met information services:* when a subscriber explains that agro-met information is considered in agricultural decision-making situations.



Villages	% Drip irrigation	% Simple phones /smart phones		Presence of agro-met providers	Subscribers to public provider	Subscribers to private provid.	No users WhatsApp
Parinche	41	66	34	Mkisan /RML	34	1	4
Vadaj	88	29	71	Mkisan, WOTR, RML	12	19	11
Pargaon	77	7	93	Mkisan, IFFCO KISAN, RML	6	23	15

# Uptake of agromet information: Results

In total 15 situation related information factors were considered by farmers, and consideration of factors varied with agricultural decision-making situations

The three information factors with highest rank:

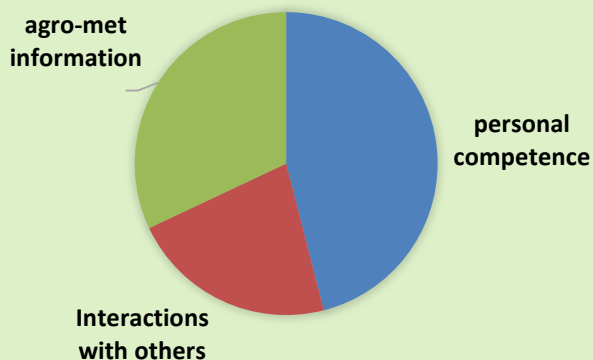
- personal experience, first
- interaction with others, second,
- agro-met information, third

Agro-met information was valued for:

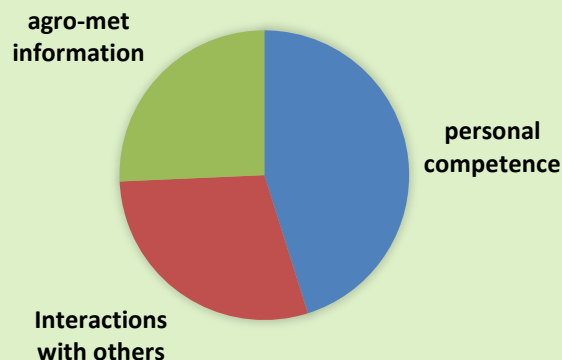
- Precautionary actions
- Pest, as this represented situations of uncertainty

Farmers complained about the credibility and the tailordness of information

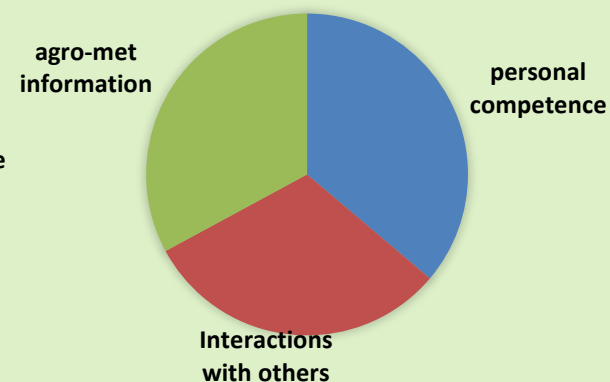
WHEN TO SOW



WHEN TO PROVIDE FERTILIZERS



WHEN TO PROVIDE PESTICIDES



# Results, social arenas

Agricultural practices was discussed in both informal and more formal arenas – initiated by the farmers themselves

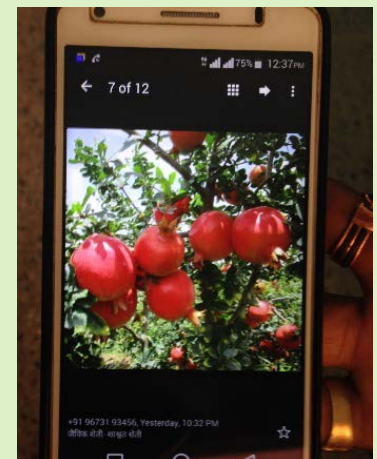


The farmers which considered agro-met information in more decision making situations referred to participation and discussion of agro-met information in such arenas



Informal arenas where agricultural practices were discussed existed in all villages, but the diversity of arenas different among the villages: discussion groups seemed largely to consist of members from the same socio-economic level.

The messaging app, Whatsapp is a growing arena for discussion of agricultural practices, in particular related to the occurrence of pests.



# Summary

**Presence of agro-met information services, the subscription and uptake of such services by farmers in three rural villages in Maharashtra, India are presented.**

**Subscription / access seems to be dependent upon socio-economic level and certain village contextual factors**

**Agro-met information is in general not perceived to be salient nor tailored; informal and formal arenas are important for contextualizing and interpretation of information.**

***Recommendation:* Platforms for interactions and social learning of agro-met information should to a larger extent be facilitated for.**



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# Sessions

*Please check in which session you will present and discuss your contribution, and use the respective cover ppt. provided in this file*

## ***Rethinking Boundaries and Inequalities Related to Climate-Resilient Development: Challenges for Resource Use and Climate Governance***

### ***Session 1: Tuesday, 22 August, 11.15-13.00***

#### ***Climate Governance and Actors: Lessons Learned for Innovative Change Management – I***

Ingrid Nesheim: Agromet Service Information

Trond Vedeld et al.: Governance of climate services in India and Norway

Trond Vedeld: Climate Governance in Cape Town, Durban and Oslo

Sutherland, Catherine et al.: Developing innovative governance approaches for climate and water resilience at the local scale: Case study Palmiet Rehabilitation Project, Durban, RSA

*Moderated and visualised discussion about lessons learned for successful change management processes and eventual further work in the working group*

### ***Session 2: Tuesday, 22 August, 14.30-16.00***

#### ***Climate Governance and Actors: Lessons Learned for Innovative Change Management- II***

Anne Weber: Why businesses go green

Edith Kürzinger: Transformational perspectives and change processes

Astrid Carrapatoso: Make people think – Education for SD

Morten Haugen: Financialization of Mother Earth

Belen Giupponi: Climate justice and inequalities in Latin America

*Moderated and visualised discussion about lessons learned for successful change management processes and eventual further work in the working group*