

# The Role of Co-production in RCOFS: Toward Usable Climate Services

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Mediterranean Climate Outlook Forum

20 – 23 Nov 2017 | Zagreb, Croatia



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# What makes knowledge 'usable'?

“...information is likely to be effective in influencing the evolution of social responses to public issues to the extent that the information is perceived by stakeholders to be not only *credible*, but also *salient* and *legitimate*.”

(Cash et al. 2003)



# Criteria for usable knowledge

Criterion	Definition
<b>Credibility</b>	perceived validity, reliability, and trust-worthiness of knowledge; adequacy of evidence
<b>Salience</b>	perceived relevance of knowledge, as well as relative importance of new knowledge compared to existing knowledge sources
<b>Legitimacy</b>	openness, transparency, and unbiased nature of knowledge; respectful of stakeholders' divergent values and beliefs

(Adapted from Cash et al. 2003)



# Co-production & usable climate services

- Scientists and stakeholders often have **different expectations & understandings** of what is 'usable'
- Climate information should **'fit' a defined problem** and specific **decision-making contexts**
- Many studies highlight the importance of **iterative interaction & ongoing collaboration** between 'producers' and 'users' can help to enhance usability of services

(Cash et al., 2003; Dilling & Lemos, 2011; Lemos & Morehouse, 2005; McNie, 2007)



# What is 'co-production'?

**No single definition, but some common features:**

1. Ongoing interaction and collaboration between actors possessing different knowledge, experience, or perspectives
2. Builds relationships, trust, respect, and communication among participants
3. Includes different types of knowledge
4. Places scientific knowledge in social, cultural, and political contexts
5. Goal of producing usable, or actionable, science for society

**Co-production can (should!) take different forms  
depending on context!**



# Examining the role of co-production in RCOFs

## **Phase 1: Scoping of RCOFs Globally**

- 25 interviews
  - individuals involved in implementation or coordination of the RCOFs either at global or regional scales
- Document analysis & review of literature
- Participation RCOF Global Review
- Some preliminary observations & analysis...



# Influence of Regional Context on RCOFs

RCOFs have many similar elements but have evolved independently and quite differently in response to the regional context:

- Institutions and cultures
- Capacities – human & technical
- Processes – forecast & forum
- Participant engagement
- Format and duration



# Who participates in RCOFs?

## Producers:

- National met agencies within the region
- WMO Regional Climate Centers
- WMO Global Prediction Centers
- Met agencies and climate institutes outside the region

## Stakeholders / Potential Users:

- National government – e.g. ministries and agencies
- NGOs / IGOs
- Development banks / multi-lateral & inter-governmental agencies
- Research / academic institutions
- Private sector – e.g. insurance, energy, tourism
- Media







# How do 'users' currently participate?

**Varies greatly across RCOFs, many different forms:**

- No participation
- 'Transfer' of knowledge
- Sectoral interpretation of forecasts
- Application within sectoral modeling
- Review previous forecasts & evaluate applications
- Boundary organizations & intermediaries
- Sectoral user forums – e.g., health, food security, water, agriculture
- Inputs / feedback toward tailored products
- Support & investment – financial, human-resource, in-kind
- Follow on activities – e.g. contingency planning, agricultural planning workshops
- Produce new products using the forecast input – e.g. food security outlook
- Joint production of bulletin products

# Co-production – both the solution and the problem?



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**“Success of climate forecasts since the 1990s brought great promise for societal benefit in their use and applications. This promise is not yet fully realized partly because the interactions with users have not been sufficient and adequate.”**

**(WMO, 2008 – RCOF Review)**



# How do you 'do' co-production?

## **No 'silver bullet' approach**

- Co-production & user engagement is specific to context – no single 'method'
- What might be appropriate in some locations will not work in others

## **The process is as important as the product**

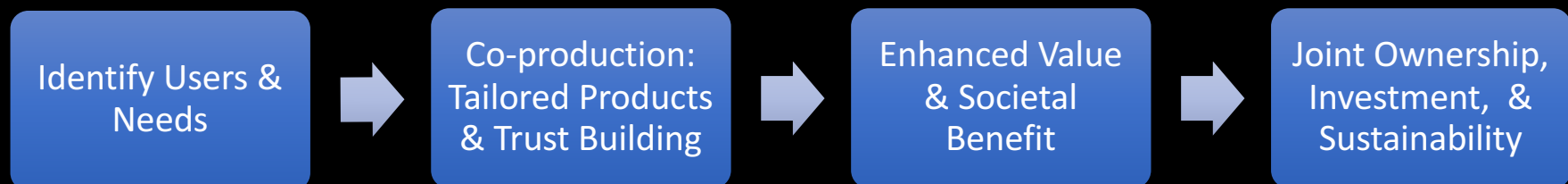
- Just getting people 'in the same room' is often not sufficient
- Need for relationships, authentic dialogue, & mutual understanding

## **Co-production may not be necessary in all cases**

- Co-production is time & resource intensive
- Necessary to understand when and where co-production is truly needed



# Why engage in co-production?





# Persistent challenges to Co-production in RCOFs

## **1. Identifying Users & Understanding Their Needs**

- Not always simple – Which users? What scale?
- Users don't know how to express their needs!

## **2. Assessment of Value**

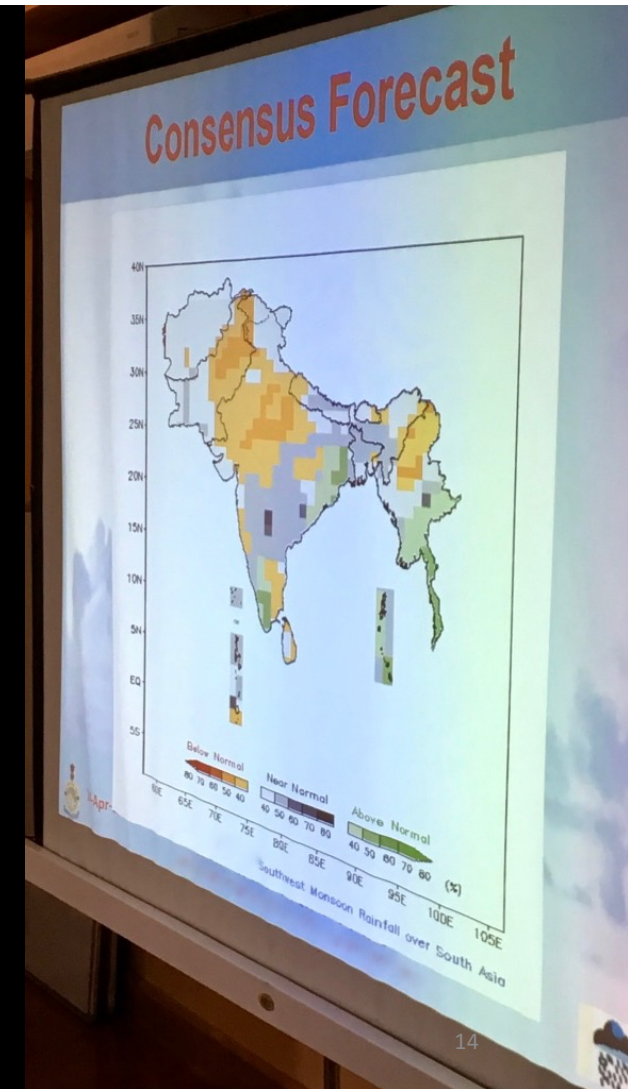
- Unlike weather services, complex chain of causality
- Often difficult to measure

## **3. Sustainability & Joint Ownership**

- Considered outcome of co-production
- However, without sustained investment, difficult to engage users consistently

# Considerations for Future

- **RCOFs are only one link in a climate services delivery chain**
  - Need to be linked / embedded in other processes
  - RCOFs can't do everything!
- **How can we be more targeted in engaging users?**
  - What is the right scale for engagement?
  - How do we build on other processes / institutions?
- **How do we assess benefits of co-production?**
  - Can this be measured? Should it?



Thank you. Merci. Gracias.

Questions?

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