

An aerial photograph of a river delta, likely the Nile Delta, showing a complex network of green agricultural fields, brown soil, and blue water. The text is overlaid on the upper portion of the image.

## **DoUBT**

Deltas' dealings with uncertainty:  
Multiple practices and knowledges  
of delta governance

# Partenaires

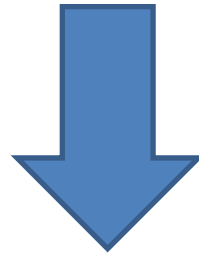
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- UPR Green
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- University of Amsterdam
- University College London
- University of Osaka
- University of Chang Mai (Thaïlande) and Royal University of Agriculture (Cambodge)

# Caractéristiques

- Réponse à appel d'offre européen ORA
  - Minimum 3 partenaires européen
  - Financement français via l'ANR
  - Durée d'instruction proposition: 9 mois (jan-nov 2015)
  - (A priori) très grande flexibilité
- Projet de 3 ans (début 1<sup>er</sup> Avril 2016)
- Budget: 500,000€ (France)
  - ~ 1,5 million (total)

# Context and overarching questions

- “Living with” rather than “controlling” nature
- Complexity of environment & development problems
- Questions regarding the place of “expert”
- New forms of knowledge and planning are emerging



What are the forms of knowledge that exist?

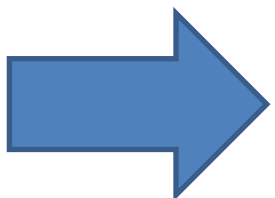
How are they produced (processes and networks)?

Whose knowledge counts or is allowed to travel, and on what grounds or through which means (*legitimation*)?



# Why deltas?

- Remarquable socio-ecosystems
- Hot-spot of development and highly populated
- Long attracted attention of decision makers
- Long history of engineering interventions  
(navigation, irrigation & drainage, flood defense)
- Currently, priority areas for intervention (in relation to a discourse on vulnerability to climate change)
- Existence of global delta-knowledge networks



They are subject of much interest among a wide diversity of actors, us included!

# Critical social research...

## But a normative aim?

Call upon philosophical pragmatism to

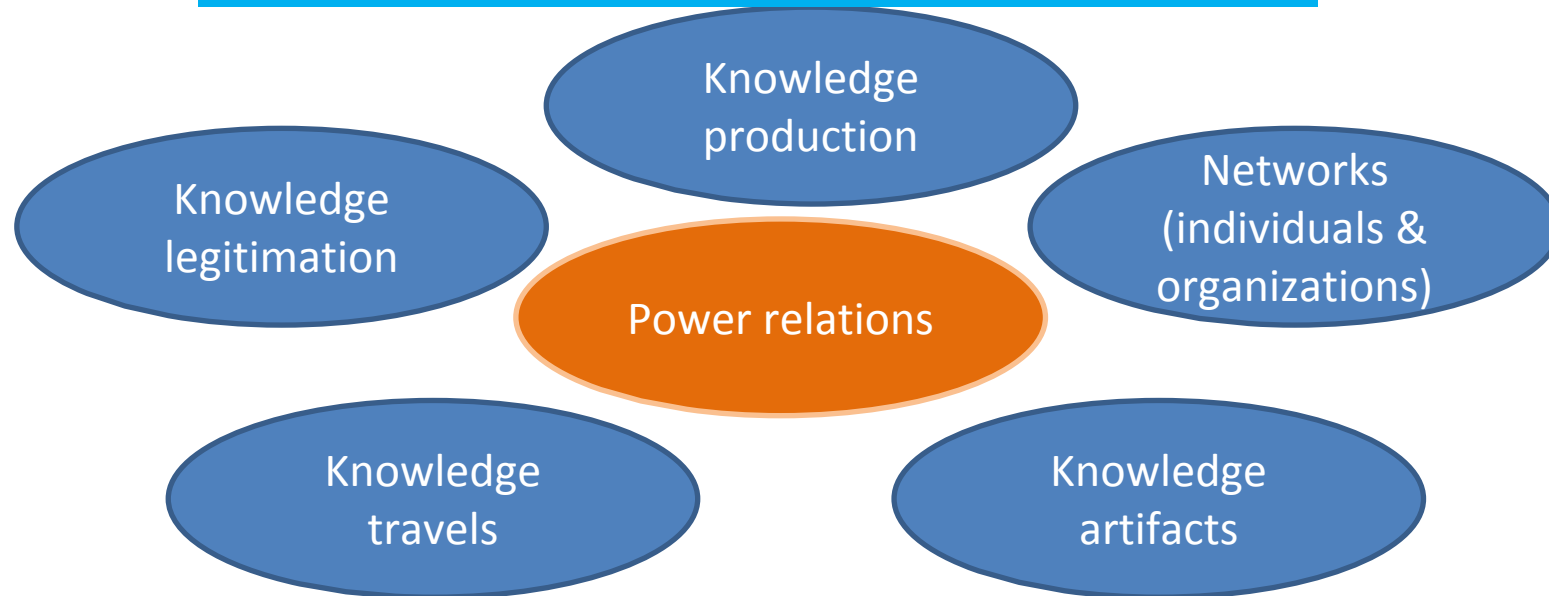
*Improve the ethics and effectiveness of environmental knowledge for actual planning processes*

➔ Conceptualizing how divergent actors in complex knowledge and planning networks can work together to productively and responsibly deal with complexity and uncertainty in the planning and governance of deltas

➔ Producing an informed re-consideration of expertise and the role of experts in dealing with socio-ecological uncertainties in South and South-East Asian delta environments

# Theoretical framework and key concepts

## STS and Anthropology of Development



Practices ***OF*** Knowledge, Governance, Planning  
Multiple Scales, Multiple actors

# Research questions

What are the different form, epistemic communities and networks of delta knowledge that exist – and how do they hybridize or not?

What are the processes of travel and legitimation of different 'delta knowledge', in which network?

Which guiding principles can be formulated for productive and responsible ways of environmental knowing and planning at different scales

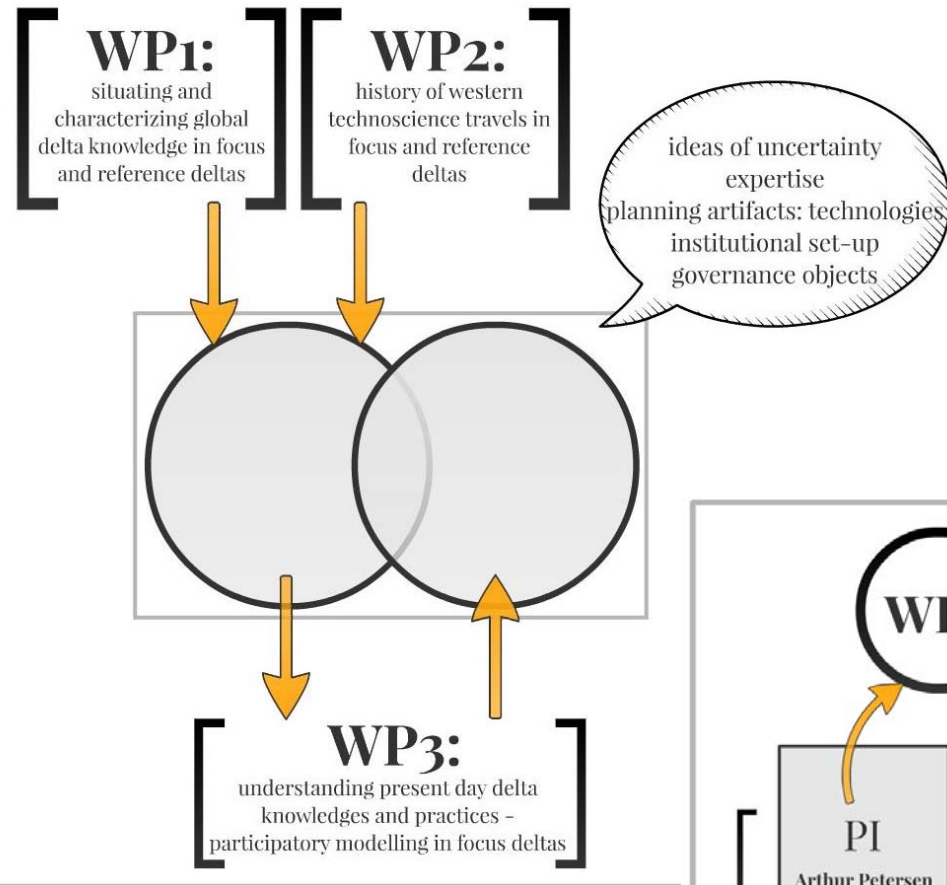


# Case study area



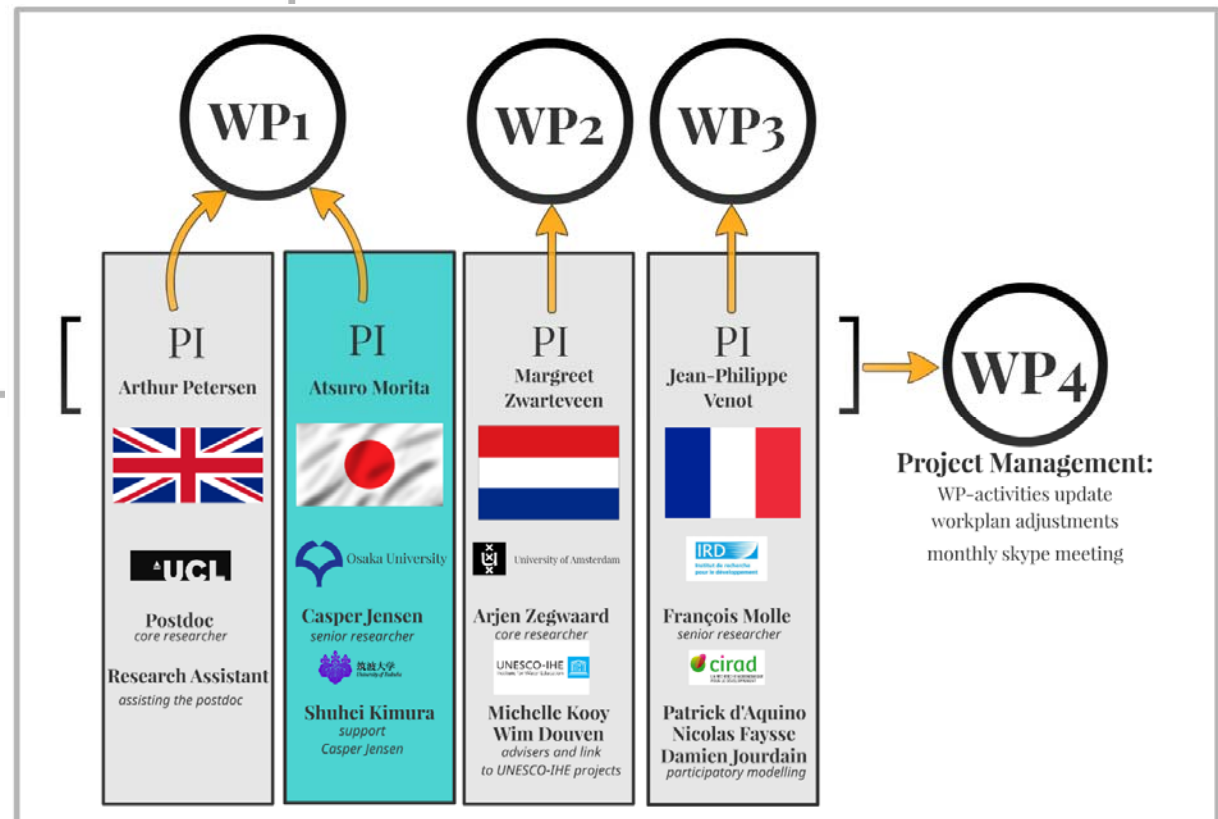
- “In deltas” field work (practice and knowledge of deltas): Chao Phraya et Irrawaddy
- Light investment: Ganges- Brahmaputra/Mekong (literature + key informant interviews with decision makers)
- Addition of Tonle Sap Lake (Cambodia): Ecological dynamics similar to those of deltas; policy and development initiatives aiming at managing the Lake.

## WP4: synthesis and transversal themes



# Organisation

- Ideas/discourses
- People
- Knowledge artifacts (models, technologies, management plans)
- Practices



# Detailed activities

- WP1 (Global knowledge networks)
  - Mapping of global delta knowledge network
  - 4 case studies around the travel of ‘delta knowledge artifacts’: Dutch planning expertise, climate models, hydrological models, rice knowledge
- WP2 (Historical perspectives)
  - The lives of past and current delta “gurus”
  - Historical perspectives on knowledge artifacts: climate models, infrastructural design, rice knowledge
- WP3 (Current embedded practices and knowledge)
  - Multi-level characterization of deltas (hydro, agro, policy)
  - Participatory approaches for supporting decision making around place-based ‘problemsheds’

# Dans un premier temps...

- Deltas comme « unité d'analyse »
  - Caractériser les 'pratiques' de gestion des eaux et des terres (*en milieu rural?*) dans les deltas
  - Caractériser les modes de 'gouvernance territoriale' multi-niveau (local-national)
- Identification de “concepts” transversaux qui « font sens » (*across scales*) et comprendre si, et comment, ils se déclinent à différents niveaux
  - Flood & drought management plans,
  - Dealing with uncertainties,
  - Rice knowledge,
  - *Autres ????*

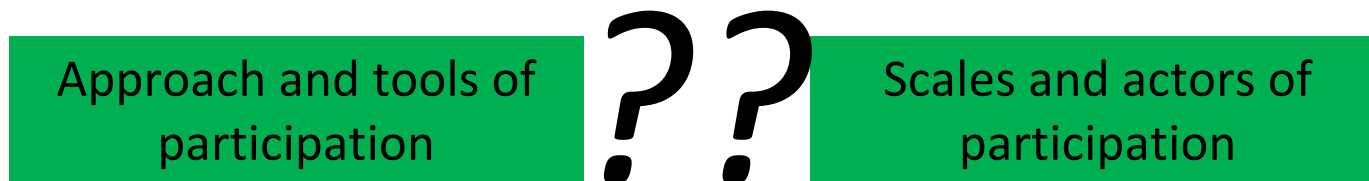


Link to project

Qu'est ce qui “fait delta” pour les acteurs de ces zones (des agriculteurs aux décideurs)

# What role for participatory tools

- Participatory approaches as “material embodiment” of philosophical pragmatism (*accompagnement*) & arenas of knowledge production
- Classic “back and forth” across scales:
  - How are policy choices/options/concepts interpreted?
  - Emergence of local concerns/issues/practices and questioning their consideration at higher level?



Characterizing the type of knowledge that “goes into” and “emerges from” participatory approaches,

# Enjeux, perspectives et insertion dans G-EAU

- Interdisciplinarité en Sciences Sociales
  - Un dialogue à construire
    - Différentes cultures de recherche
    - Approches et centres d'intérêts différents
    - Echelles d'études différentes (global-local)
    - Méthodes différentes (~ participation)
  - Production d'une diversité de connaissance
- 
- Deux équipes: INCA et CAP
  - Lien à construire avec « Socio-hydro »
    - Caractérisation du fonctionnement hydrologique de ces deltas et grandes plaines inondables,