IMPACT2C

“Quantifying projected impacts under 2℃ warming”

M. Schaller, D. Jacob, L. Kotova and IMPACT2C Team

Climate Service Center (CSC),
Hamburg/Helmholtz-Zentrum Geesthacht, Germany
(daniela.jacob@hzg.de)

EU-FP7-co-funded collaborative project

Grant Agreement	**282746**
Duration	**10/2011 – 09/2015**
Co-ordination	**Prof. Dr. Daniela Jacob** **Helmholtz-Zentrum Geesthacht** **Climate Service Center**
Project Team	**29 partners from 17 countries**

Concept & objectives

IMPACT2C will identify and quantify the impacts and most appropriate response strategies of a 2ºC global warming for Europe and three selected vulnerable regions in other parts of the world: Bangladesh, Africa (Nile and Niger basins) and the Maldives

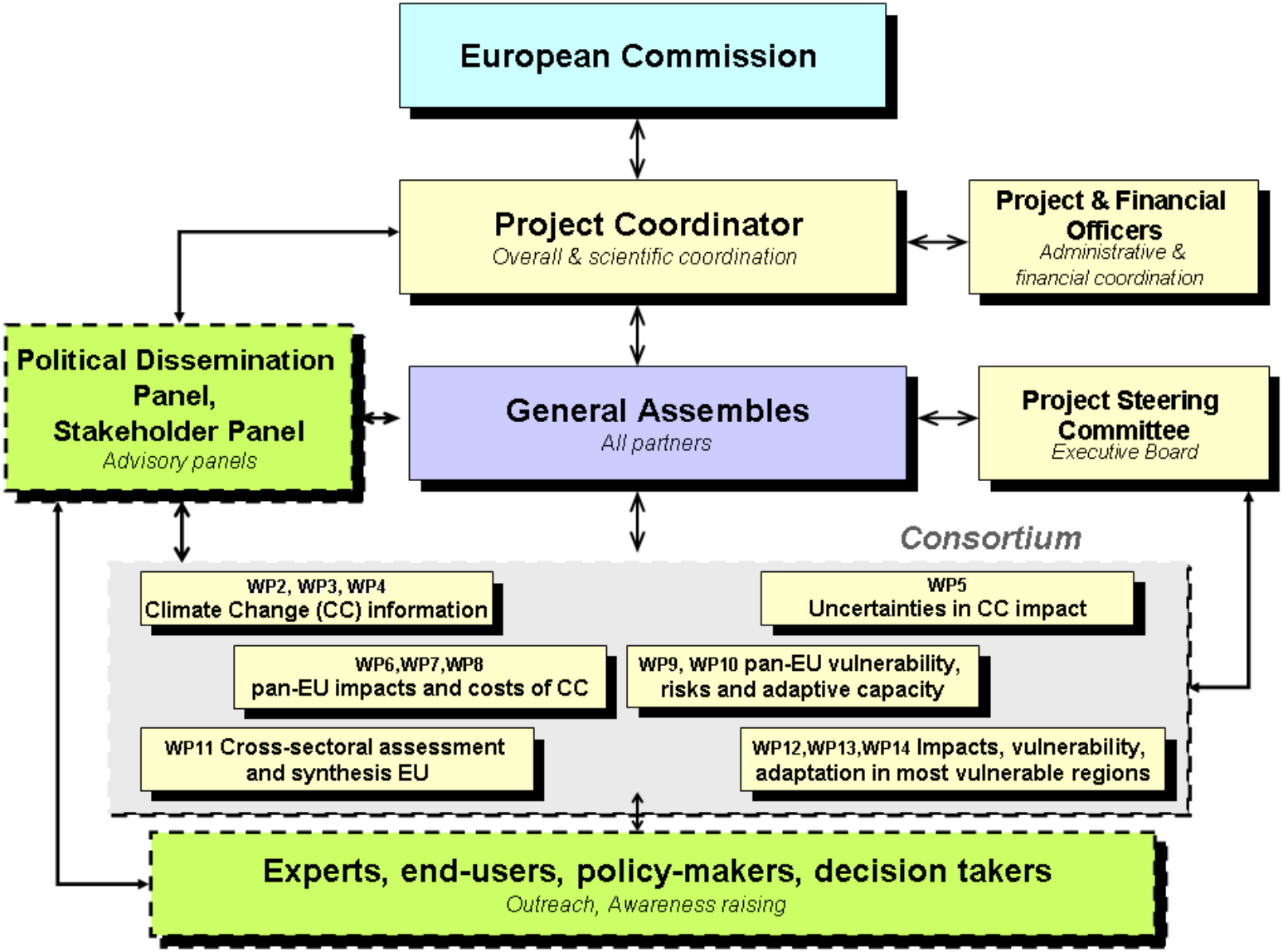
IMPACT2C will:

✓*Provide detailed ensemble based climate change scenarios, plus statistics and derived indices, tailored to the needs of various sectors, for the time slice in which the global temperature is simulated to be 2ºC above pre industrial levels*

✓*Provide a detailed assessment of impacts, vulnerabilities, risks and associated costs for a broad range of sectors against the background of socio economic scenarios consistent with development paths aimed at limiting global warming to 2ºC*

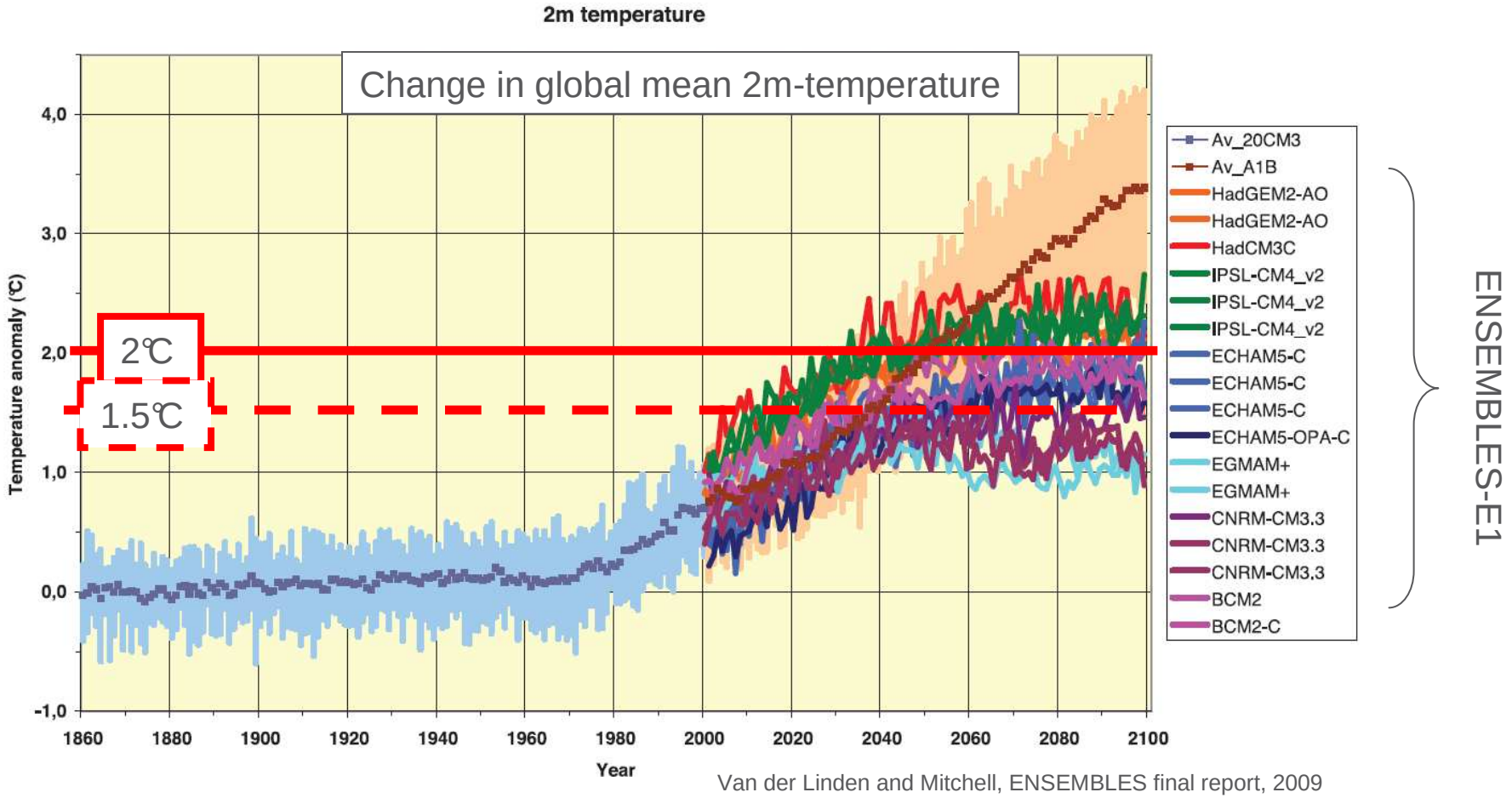
✓*Develop an optimal mix of response strategies (technological, governance, capacity building) accounting for the regional differences in adaptive capacities, distinguishing between those that can be accommodated autonomously and those that require additional policy interventions*

Structure


European Commission
Project Coordinator
Overall & scientific coordination
Project & Financial Officers
Administrative & financial coordination
Political Dissemination Panel, Stakeholder Panel
Advisory panels
General Assembles
All partners
Project Steering Committee
Executive Board
Consortium
WP2, WP3, WP4
Climate Change (CC) information
WP5
Uncertainties in CC impact
WP6,WP7,WP8
pan-EU impacts and costs of CC
WP9, WP10 pan-EU vulnerability, risks and adaptive capacity
WP11 Cross-sectoral assessment and synthesis EU
WP12,WP13,WP14 Impacts, vulnerability, adaptation in most vulnerable regions
Experts, end-users, policy-makers, decision takers
Outreach, Awareness raising

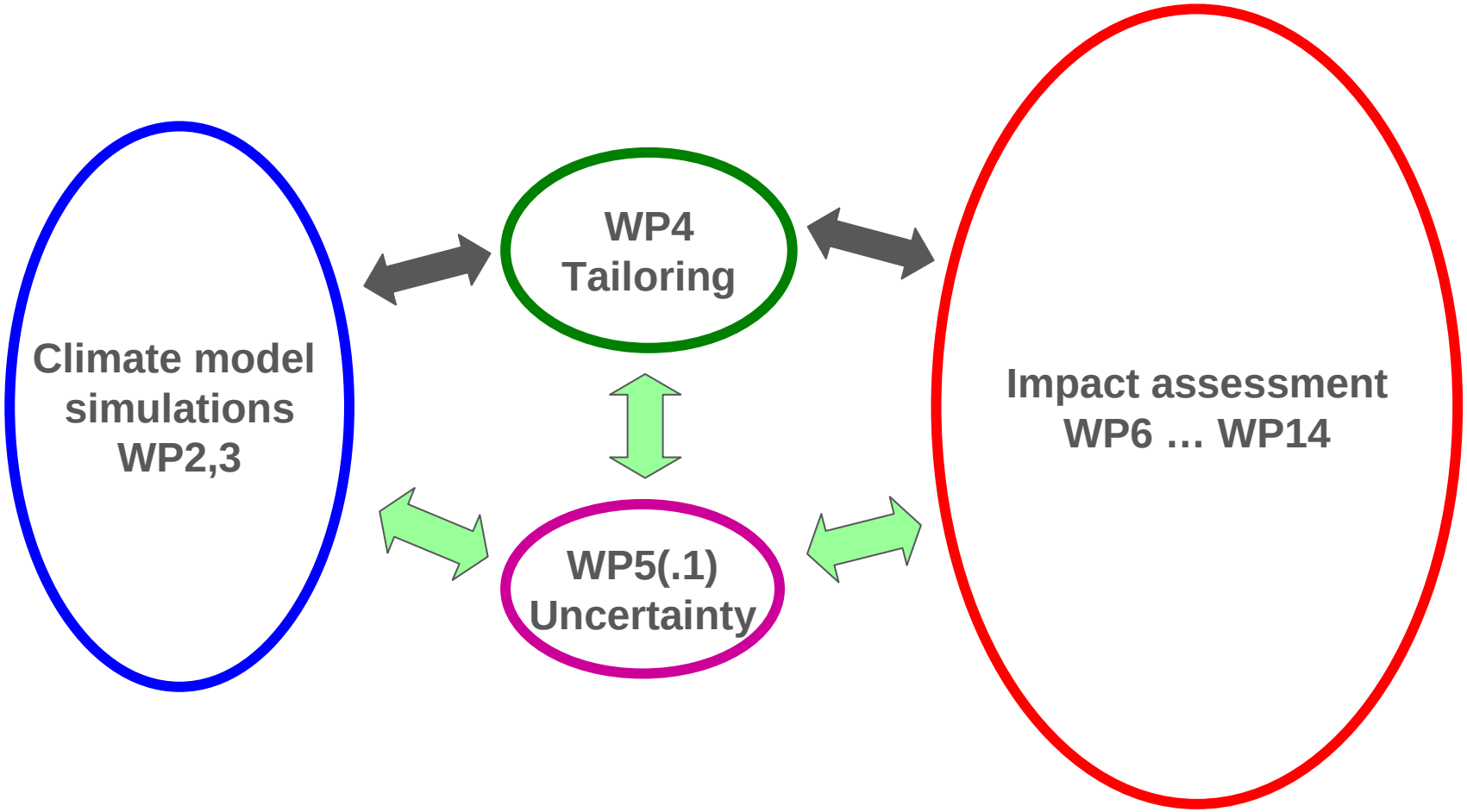
Climate scenarios for Europe (WP2) and the non-European regions (WP3)

at the time global mean temperature is simulated to be 2ºC (1.5ºC) above its preindustrial level

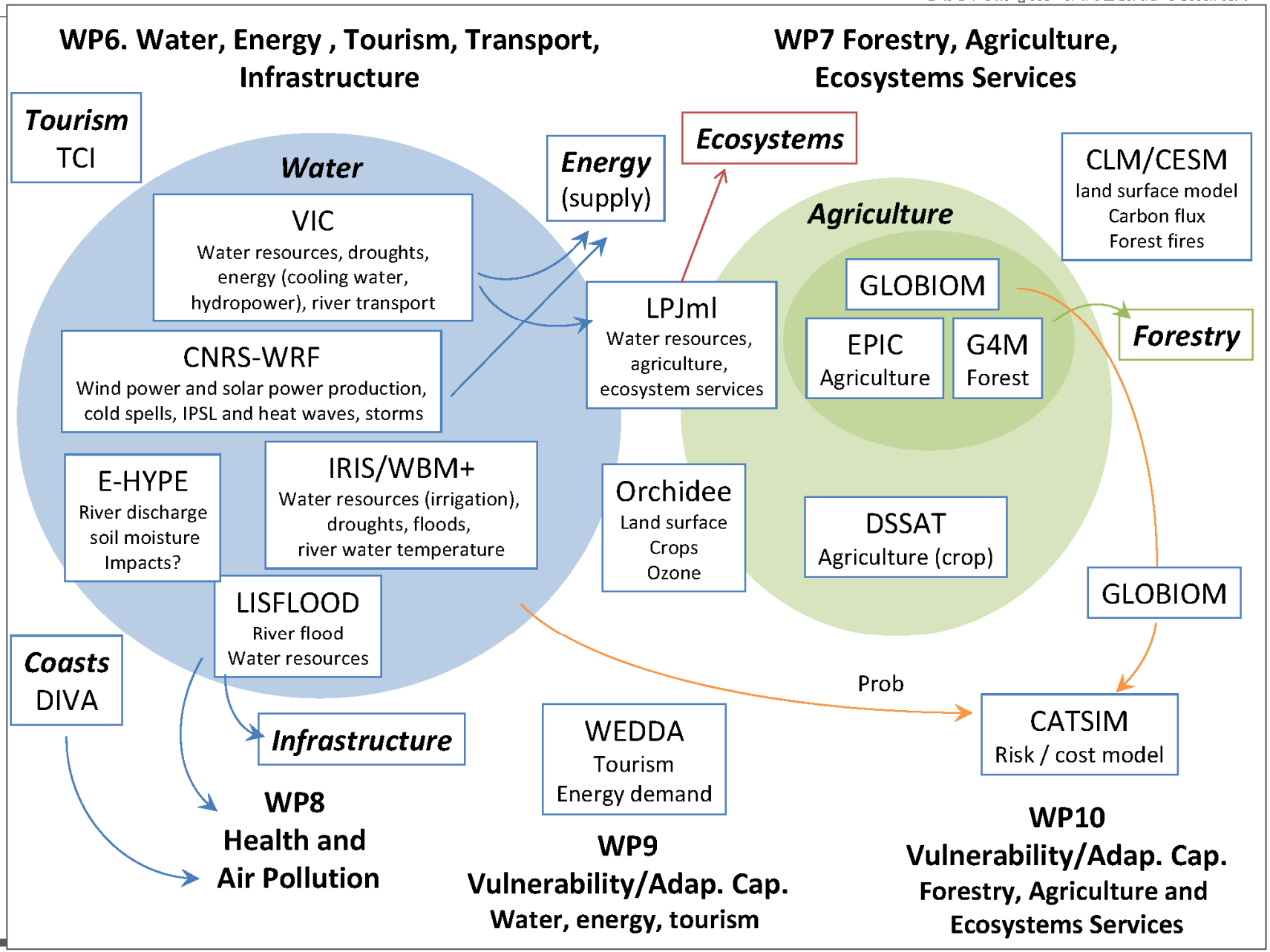


Van der Linden and Mitchell, ENSEMBLES final report, 2009

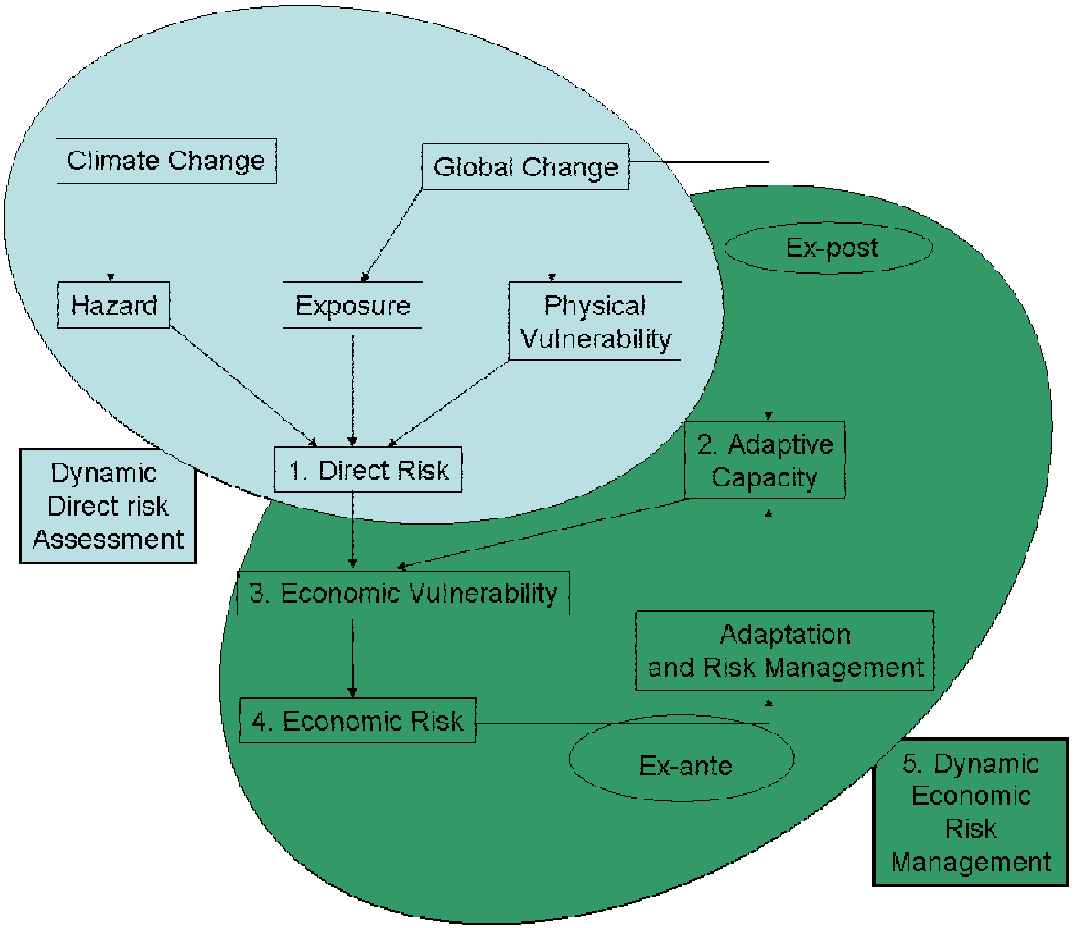
Tailoring climate information (WP4)



Impact model linkage



Framework for assessing risk and adaptation (WP10)



1: Impact analysis

Monetized impacts (direct risks)

2: Adaptive capacity

Market structure, subsidies, savings, insurance

3: Economic vulnerability

Ability to absorb losses

4: Economic risk

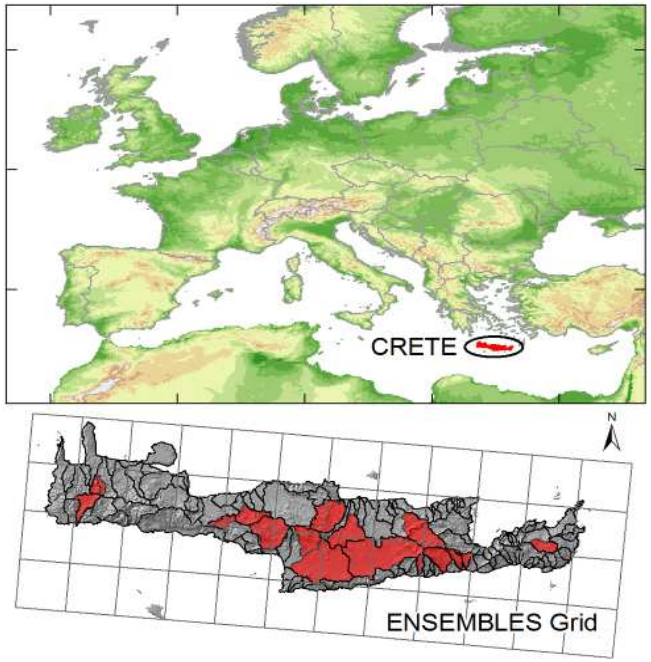
Impact on value added, GDP, consumption, budget

5: Reducing risk and building resilience

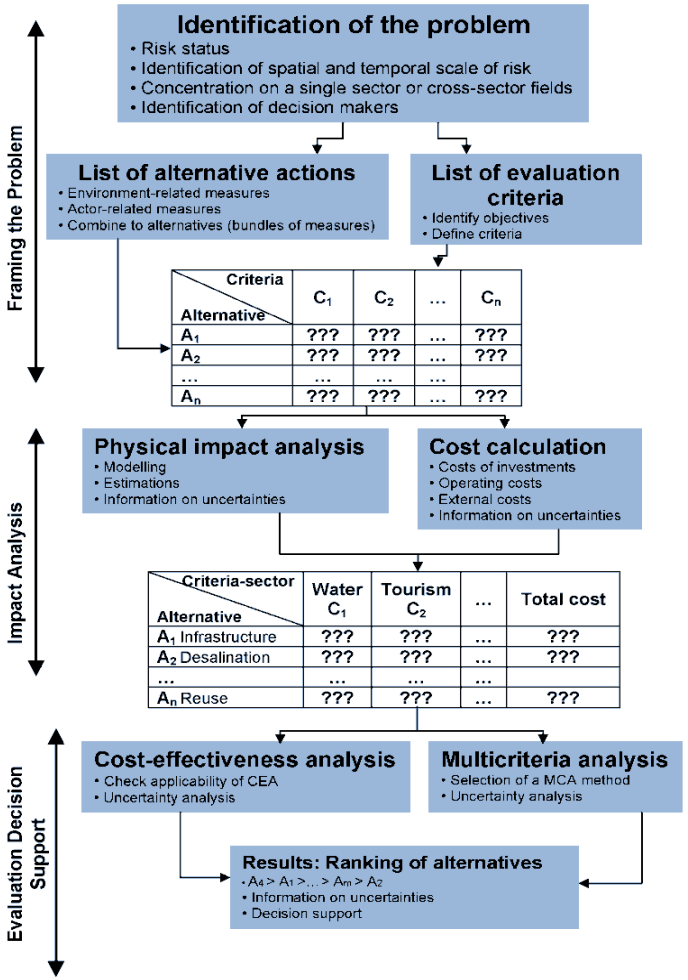
Vulnerable regions exposed to multiple (cross-sectoral) impacts (WP11)

Objectives:

- To examine the impact of 2°C warming from a multi-sector approach under different emission scenarios.
- To assess the uncertainty propagation from climate model output to impact, adaptation and cost in various sectors.
- To perform a cross-sector integration of climate change impacts within a socioeconomic-vulnerability- adaptation capacity and cost of adaptation framework, in collaboration with local stakeholders and policy makers.



Sector oriented background including: water resources sector, infrastructure sector, agricultural sector, tourism sector, energy sector.



Framing the cross-sector integration includes: Identifying the decision maker, Identifying the risks, List of objectives, Criteria, Potential measures, Set-up of the decision matrix following a Cost calculation and Cost-effectiveness - Multicriteria analysis.

Africa case study (Niger & Nile)

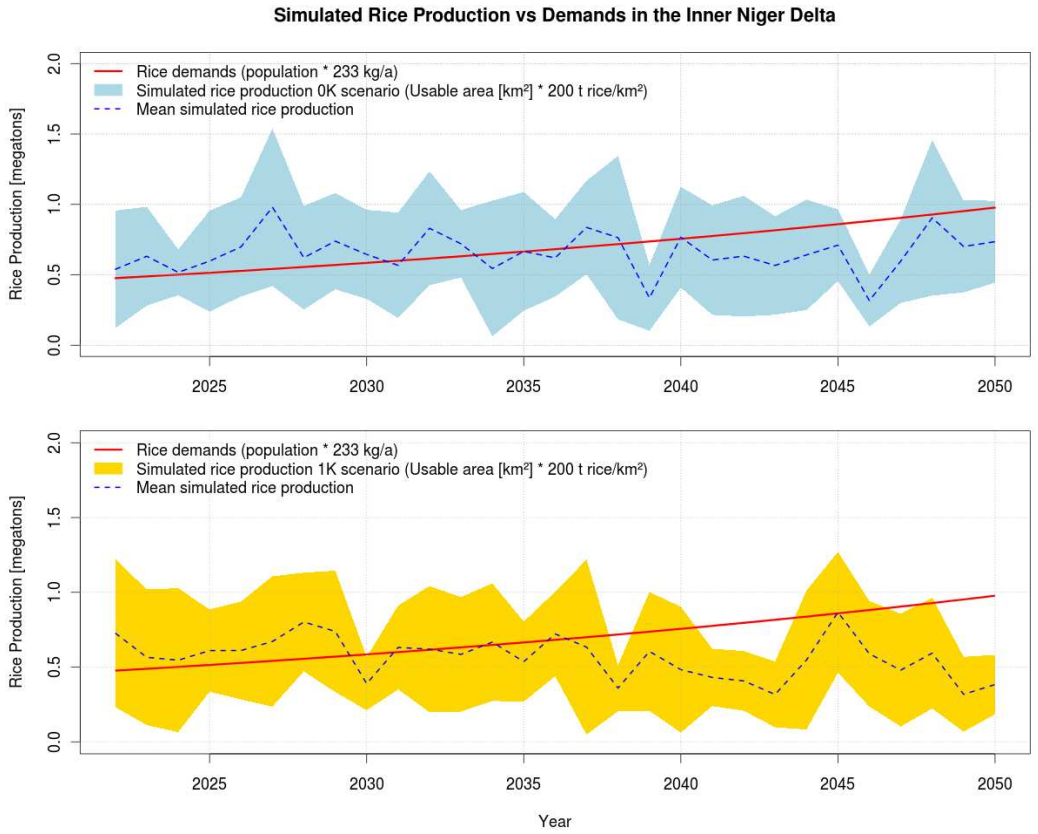
Sectors of interest

Water Management

Agriculture and Biodiversity

Food-security

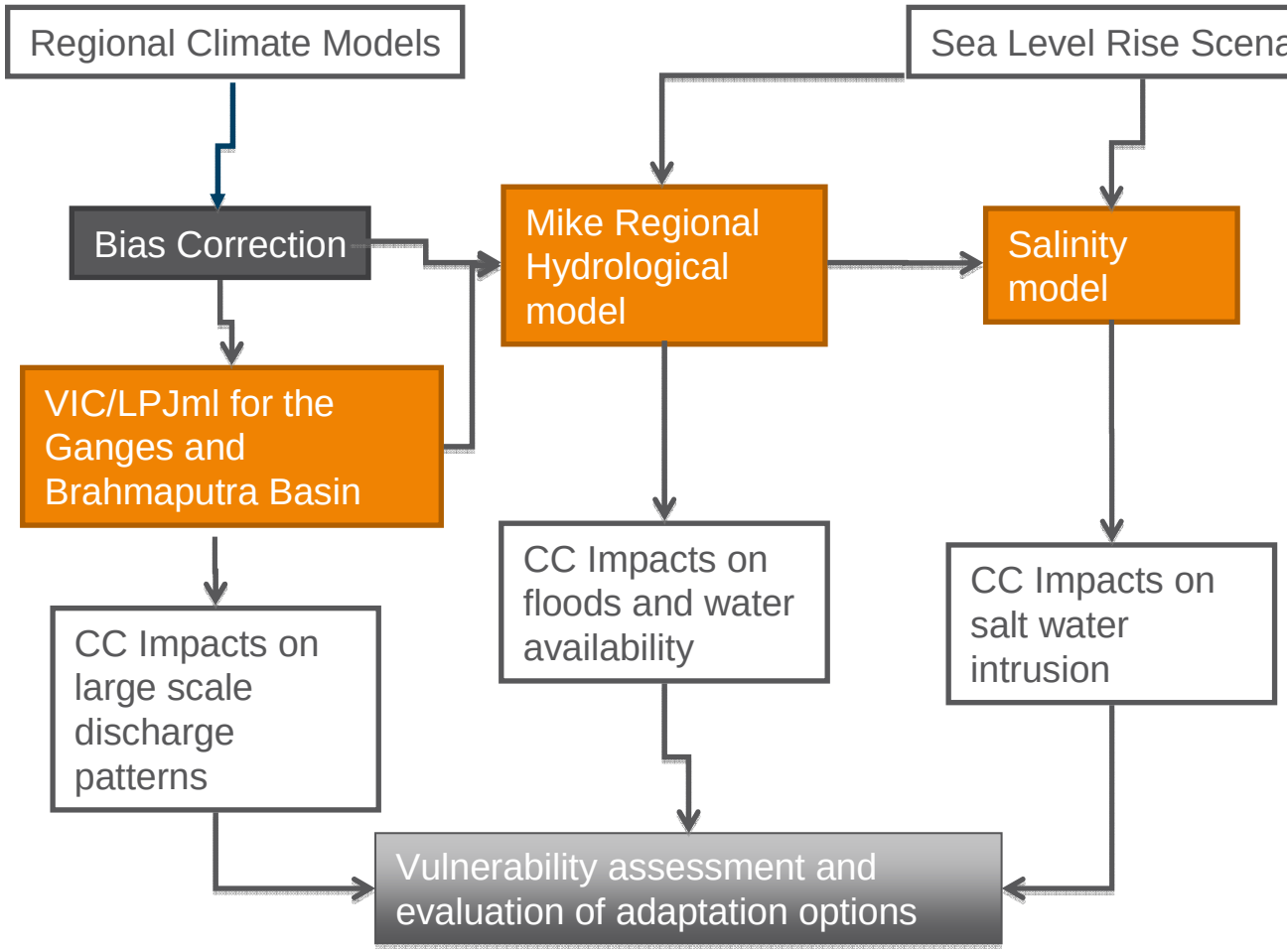
Hydro-power



SWIM – Simulated rice production in the inner Niger Delta

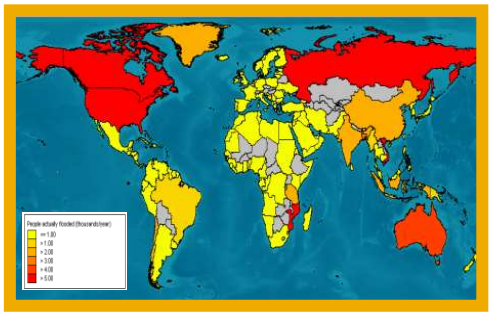
WP12

Bangladesh Modelling Framework (WP13)



Fulco Ludwig and Ronald Hutjes

Undertaking the WP14: focus on the Maldives



1. Analysing sea-level impacts using a climate impacts model (DIVA).

2. Understanding today's problems and adaptation solutions for the Maldives, using (four) case studies.

3. For the case studies, analyse impacts (e.g., flooding and submergence) through GIS and possible adaptation options – feedback to 1.

4. Qualitative investigation of other climate aspects of coastal change.

Robert Nicholls (SOTON) et al.

UNIVERSITY OF Southampton
ECF
Helmholtz-Zentrum Geesthacht
Zentrum für Material- und Küstenforschung

Thank your for your attention

Please visit www.impact2c.eu

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