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Session I: Environmental migration state of the art: Where we are, where we need to go:

Next steps in evidence based research— combining field, earth observation, and modeling

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Overview



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1. Research and policy context
2. Evidence based research on environmental change and migration: lessons learned
3. Next steps in research: combined evidence based fieldwork with earth observation, modeling techniques, and mapping

Environmental change & migration: Thought Evolution

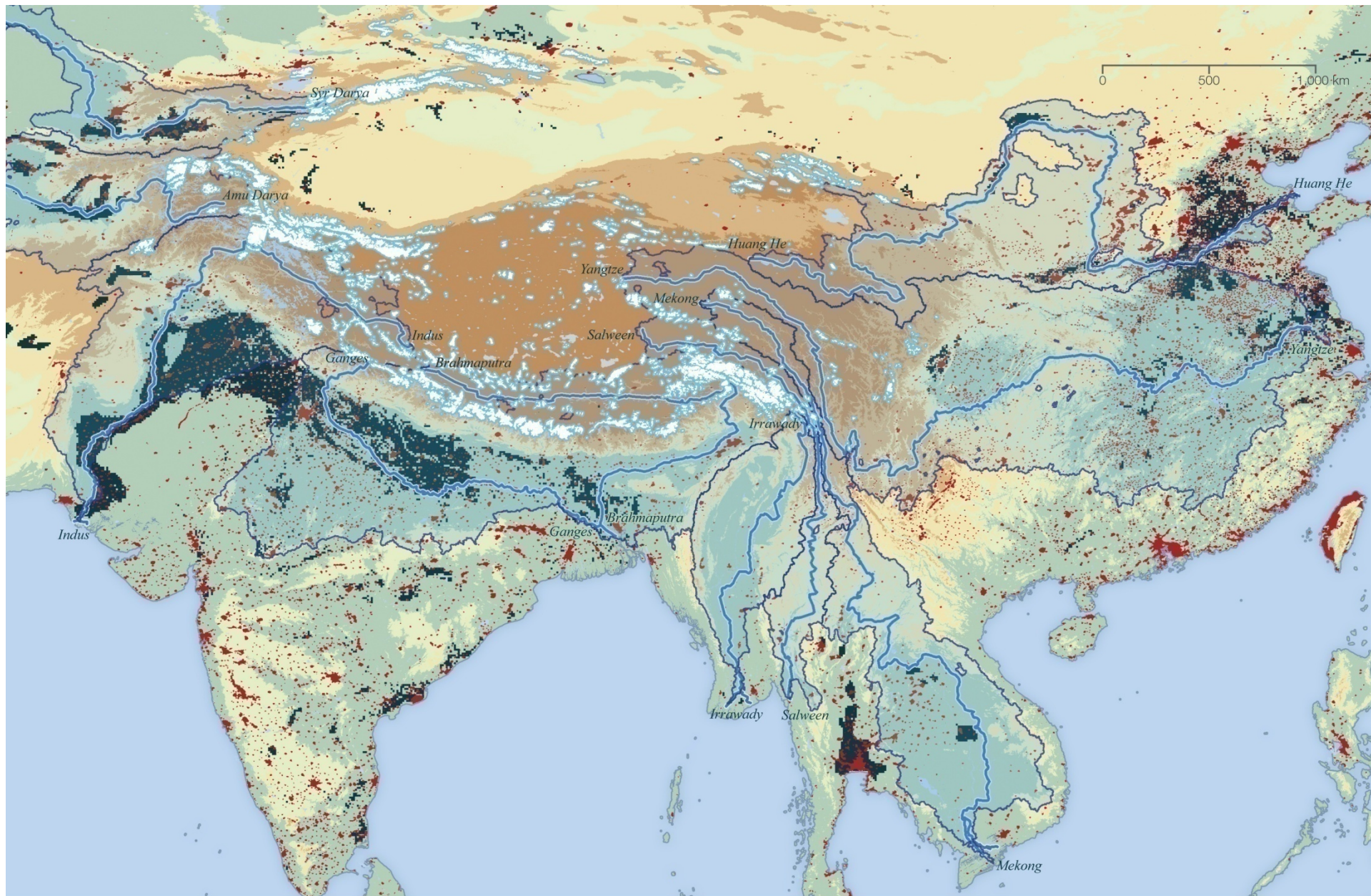


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- Early literature claimed direct, causal relationships
 - Little consideration of household level, agency, intervening social factors, context
 - Academics debate Homer-Dixon's hypothesis
 - Environmental wars did not materialize (no water wars, no waves of environmental „refugees“...but localized tensions)
 - Media and decision makers still thinking along these lines, however
- More recent debates have crystalized among „sceptics“ and „alarmists“
- Emerging evidence-based research (such as EACH-FOR project) gathering knowledge about models, nuanced relationships— with many questions about scale and generalizability!



Glaciers

Rivers

Basins

Irrigated Areas

Urban Extent

Elevation (meters)

0 - 500

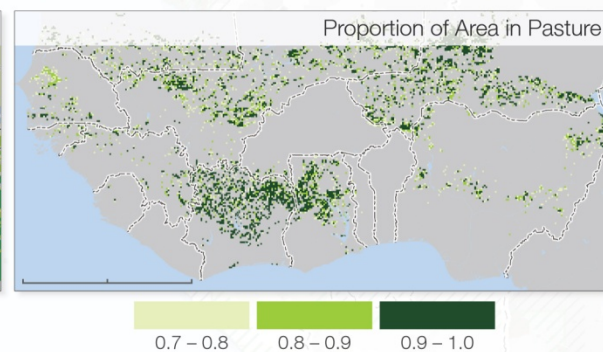
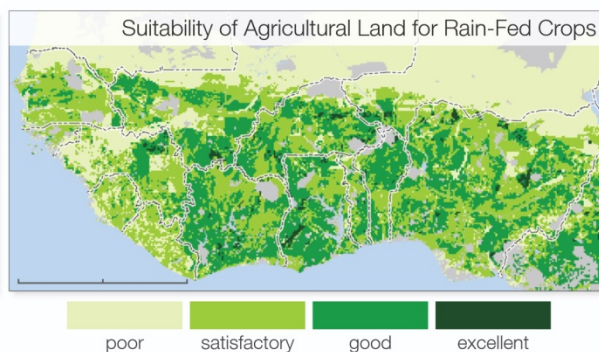
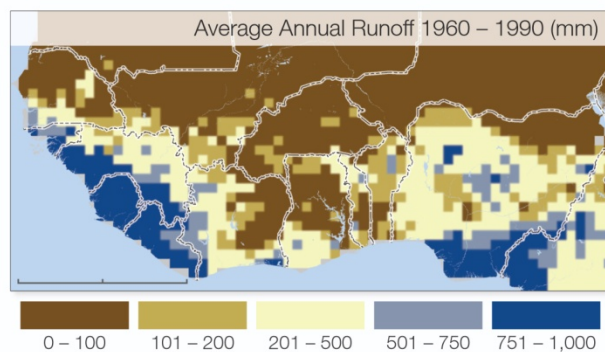
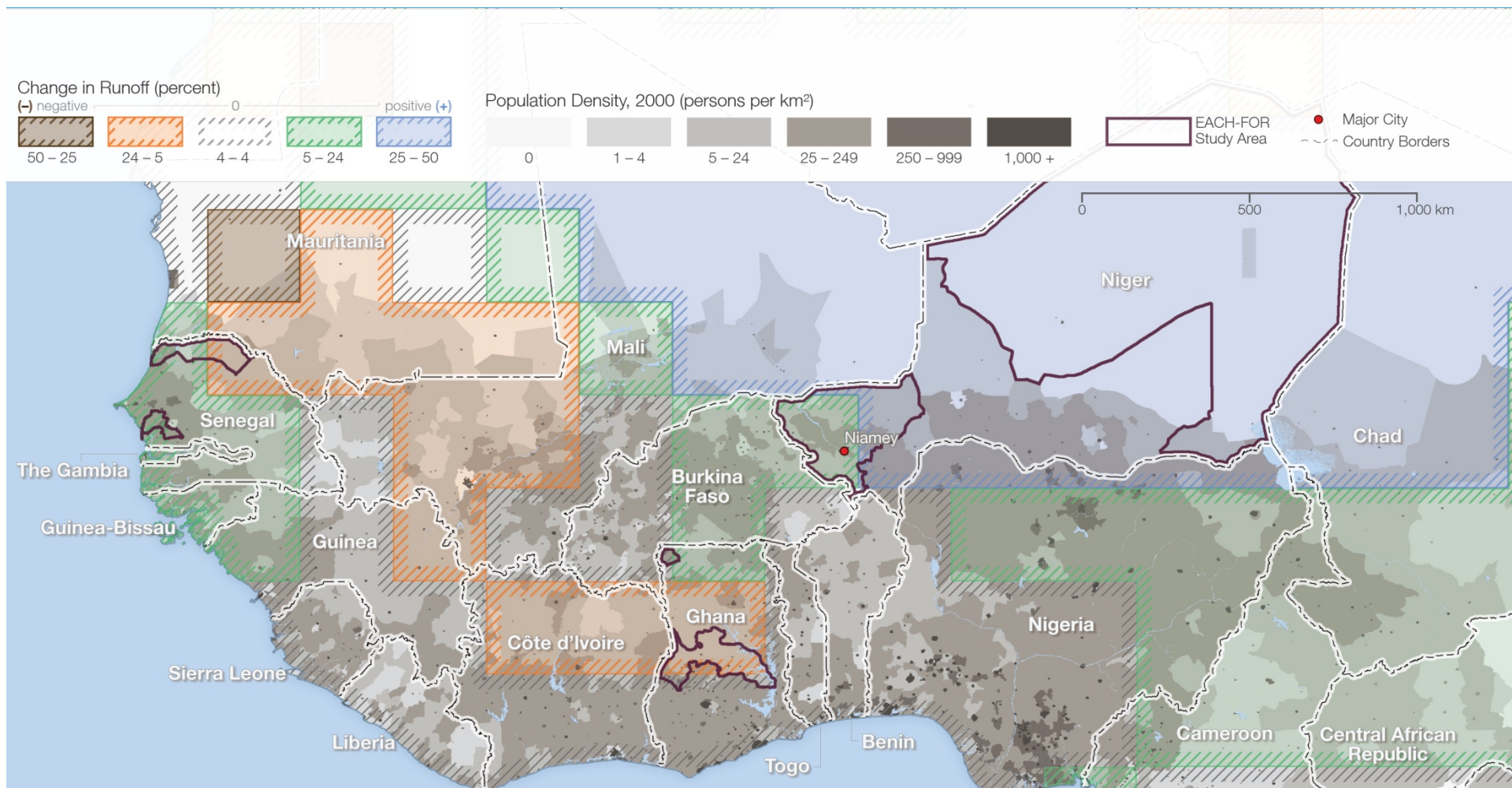
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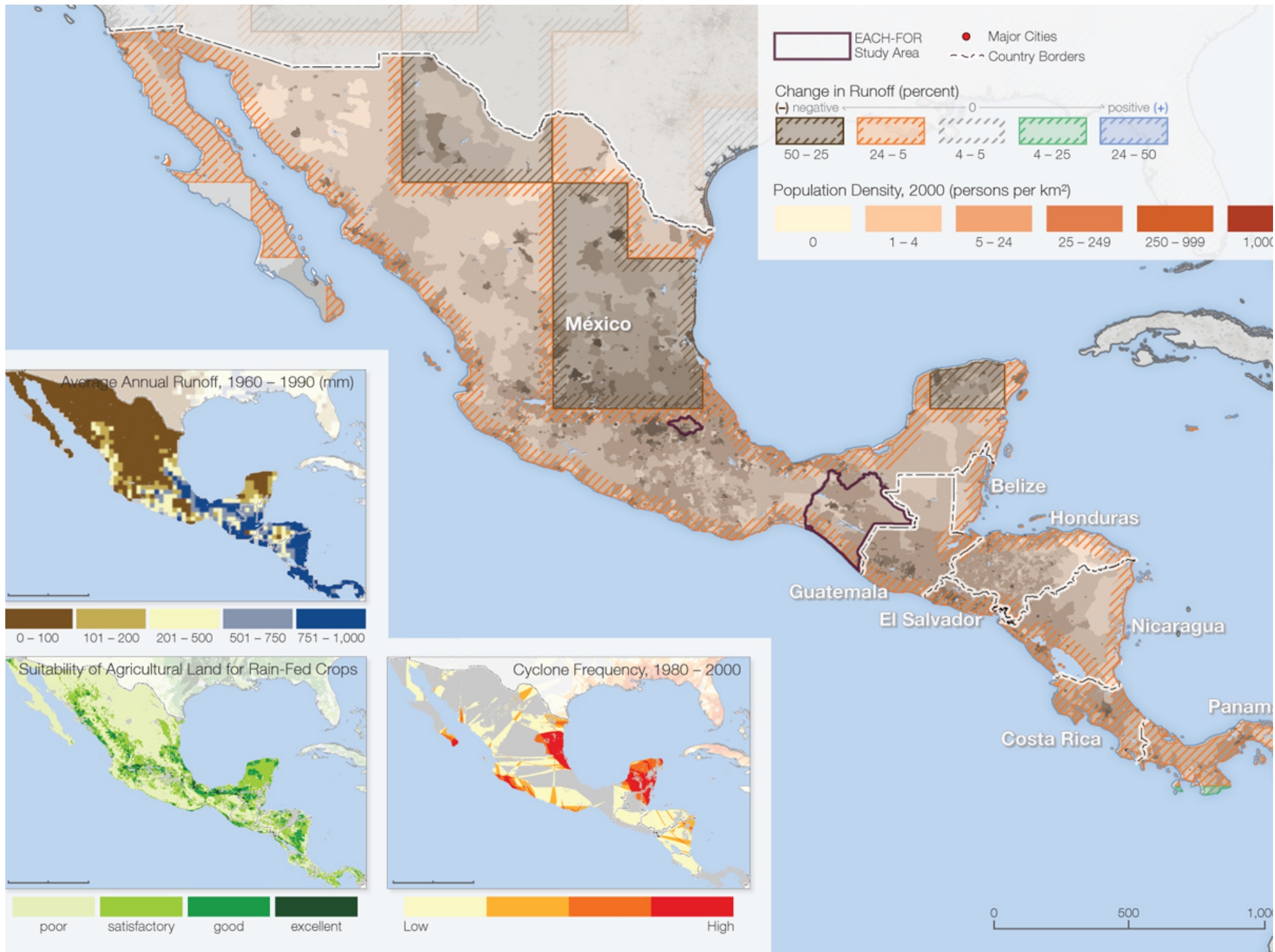
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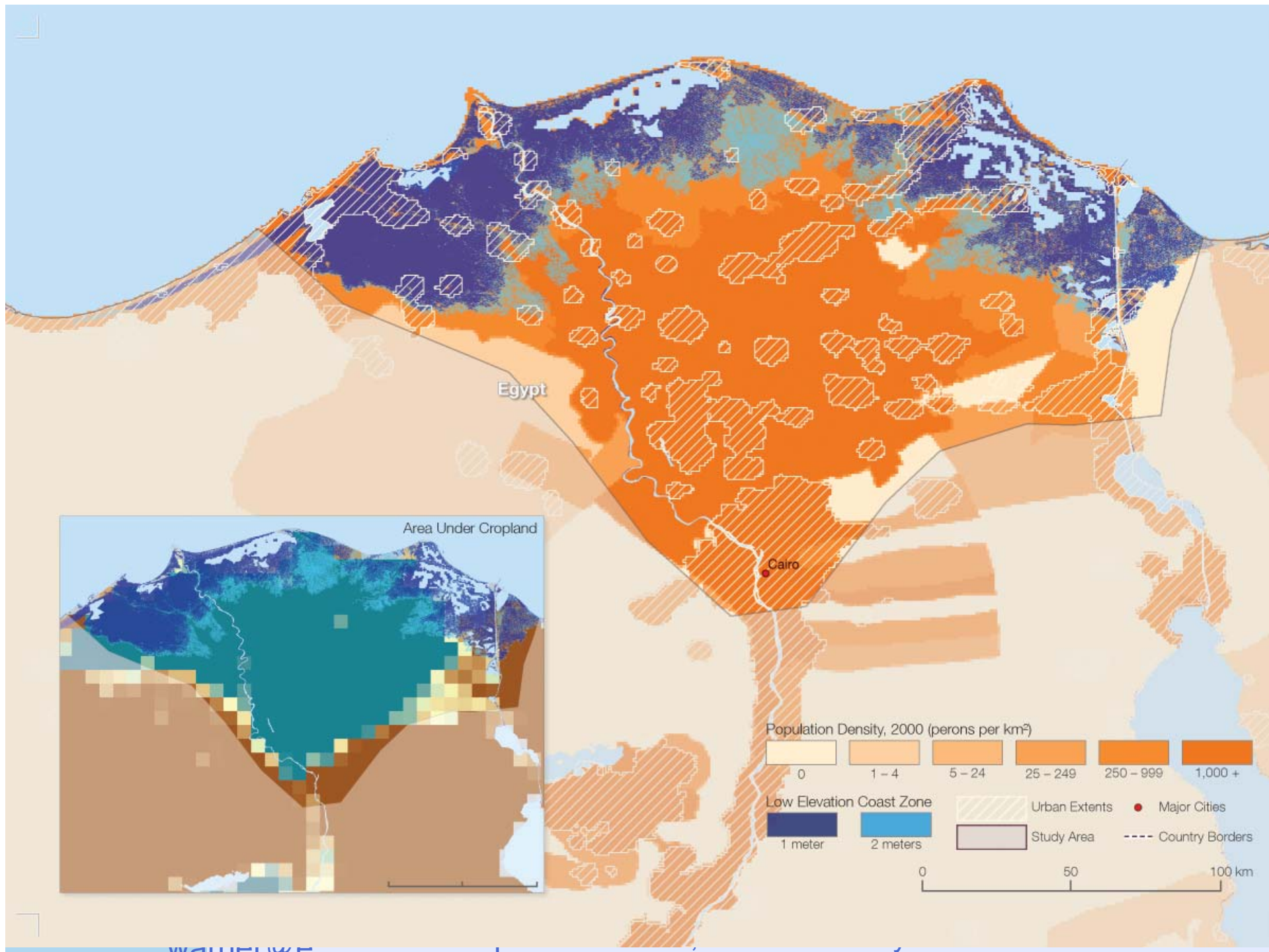
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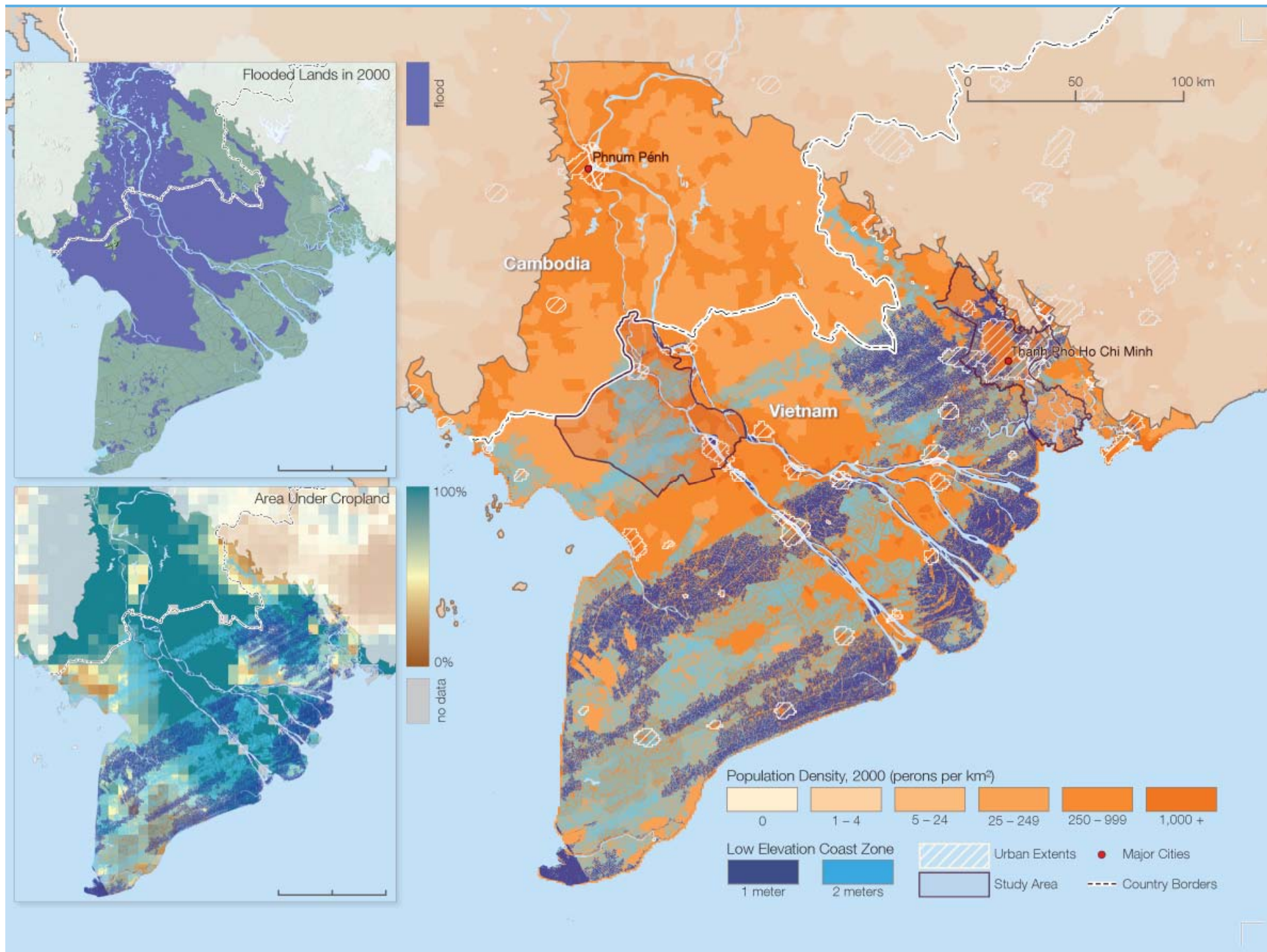
4,000 - 6,000

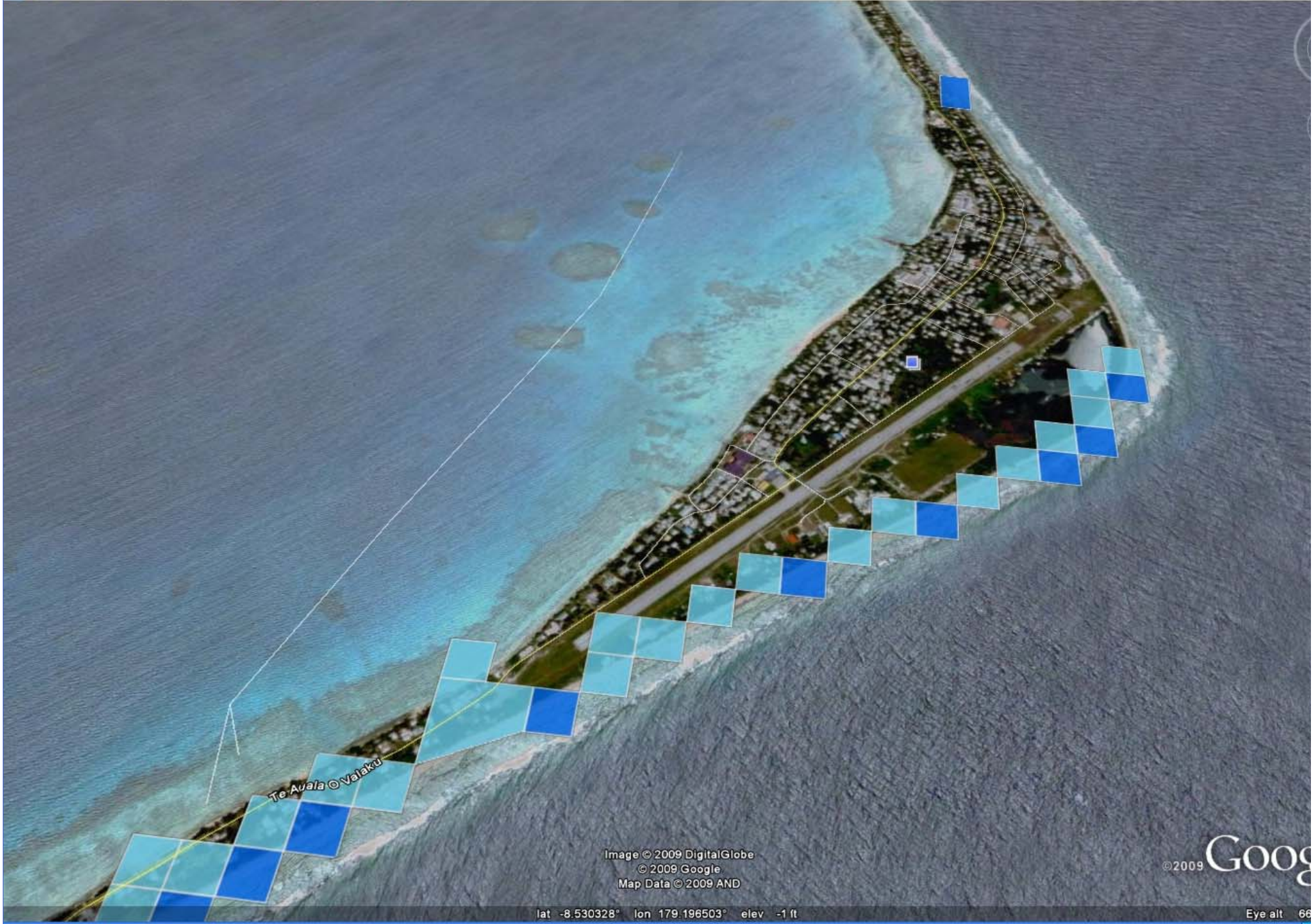
6,000 - 8,000











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lat -8.530328° lon 179.196503° elev -1 ft

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Lessons learned from EACH-FOR and other field-based research



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- Need to understand dynamic human-ecological systems, rather than „simple“ causal relationships
- Need to understand evolving relationships between social networks, ecological systems, and a variety of risk management measures including migration
- Need to understand interlinkages between migration and environmental change over longer periods of time—out towards 2050, 2080...
- Rich methodological lessons from fieldwork, scale issues, isolating variables, etc.



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“In the long-term, this [changes in rainfall patterns and rising temperatures] will be a main driver of migration; but we haven't started thinking about it yet because its outside of what we have dealt with in the past. We are still stuck on the old drivers getting wider and worse.”

Bill Swing, Director General of IOM
UNFCCC climate negotiations in Copenhagen (COP15)



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- New initiative: “Where the Rain Falls: changing agro-climatic risks, hunger and human mobility”
- 36 month research project looking at links between agro-climatic risks, food and livelihood security, and human mobility
- Principle investigators: UNU and CARE International
- Supported by:
 - a North American foundation,
 - a European corporation (corporate social responsibility and data units)

Objectives & methods



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■ **Conceptualize relationship** between changing rainfall patterns, food security, and different forms of human mobility.

- Household survey, $n \geq 4,000$
- Participatory community-based research in 8 countries
- Earth observation/GIS techniques, rainfall variability over time (NDVI, weather stations, etc.), $t \geq 25$ years

■ **Assess potential** for changing rainfall patterns to become a major driver of human migration and displacement within the next [two/three decades].

- Agent-based modeling
- Hotspot mapping, demographic information, map layers

■ **Enable range of stakeholders**, including southern civil society organizations, to influence key policies and plans.

- Participatory community-based adaptation and resilience building



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ADVANCE VERSION



Framework Convention
on Climate Change

Distr.
GENERAL

FCCC/CP/2010/2
11 February 2010



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CONFERENCE OF THE PARTIES
Sixteenth session
X, 29 November to 10 December 2010
Item X of the provisional agenda

Advance unedited version

Draft decision -/CP.16

Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention

13. *Decides* to hereby establish the Cancun Adaptation Framework encompassing the provisions laid out below, with the objective of enhancing action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention;

14. *Invites* all Parties to enhance action on adaptation under the Cancun Adaptation Framework, taking into account their common but differentiated responsibilities and respective capabilities, and specific national and regional development priorities, objectives and circumstances, by undertaking, inter alia, the following.

(f) Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels;

Thank you.



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