

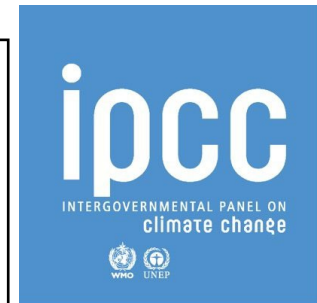
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## Research interests

- Climate Change Adaptation and Water Resource Management
- Nexus (Water-Health-Climate-Food-Human wellbeing)
- Numerical Simulation for Contaminant Fate and Transport
- Global Changes and its impacts on Water Resources

## Global reports

- Lead author (IPBES, GEO)
- Chapter scientist (IPCC)

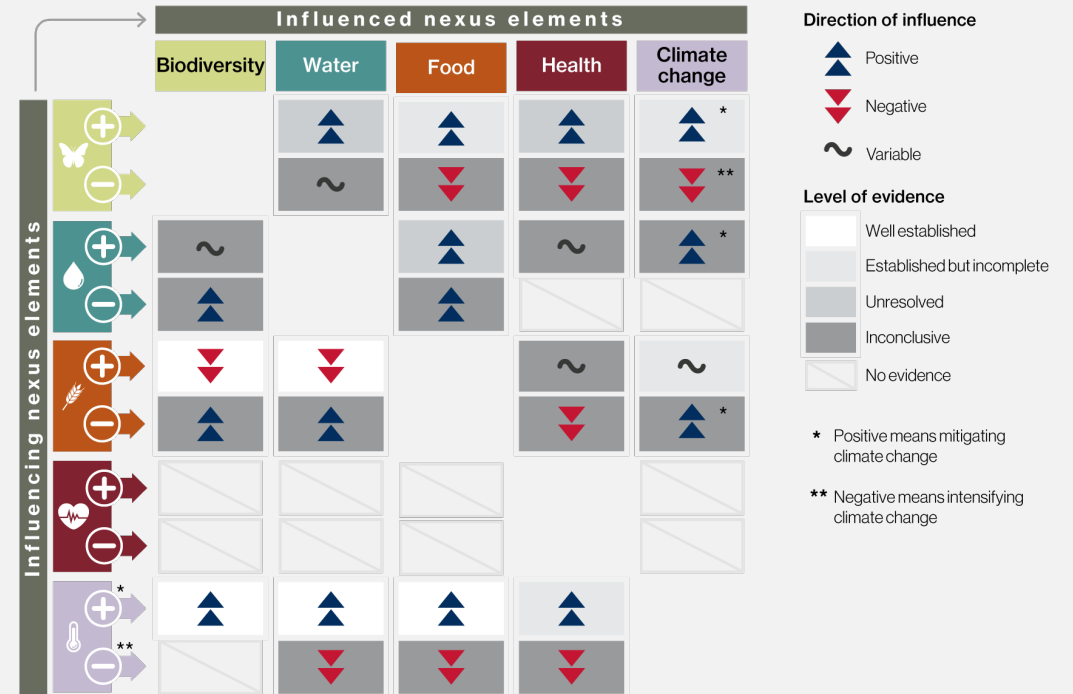


# Nexus Key messages

## A. Past and current nexus interactions

*Biodiversity is essential to our very existence, supporting our water and food supplies, our health and the stability of the climate*

A INTERACTIONS AMONG NEXUS ELEMENTS

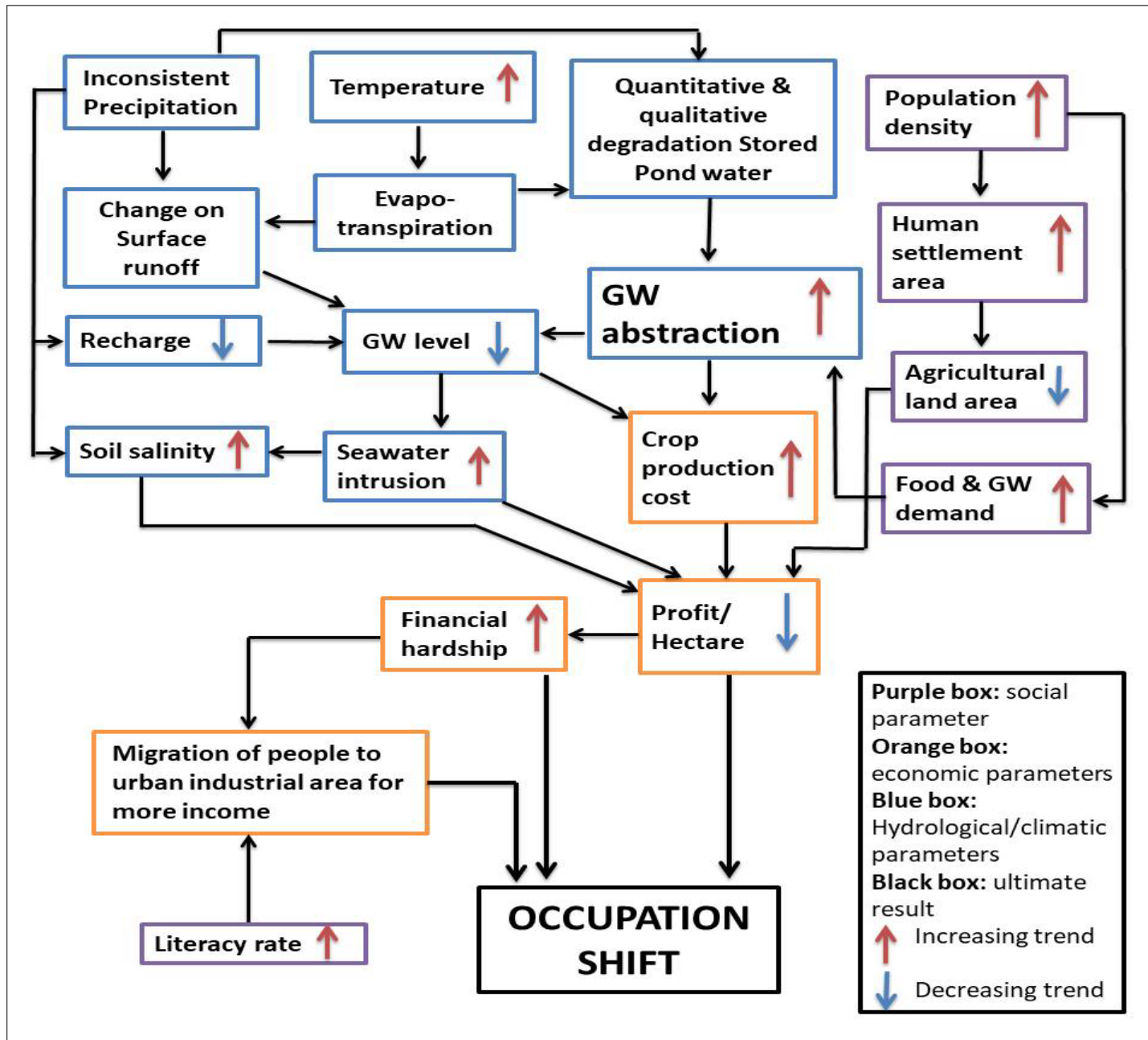


A PROJECTED FUTURE IMPACTS ON THE NEXUS ELEMENTS

Nexus archetype	Nexus element					Impacts on each nexus element under each nexus archetype
	Biodiversity	Water	Food	Health	Climate	
1. Nature-oriented nexus	▲▲▲	▲▲	▲	▲	▲▲	▲▲▲ Highly positive
2. Balanced nexus	▲	▲	▲▲	▲▲	▲	▲▲ Moderately positive
3. Conservation first	▲▲	~	▼▼	~	▲	▲ Slightly positive
4. Climate first	▼	~	▼▼	▲	▲▲	~ Variable
5. Food first	▼▼	▼	▲▲	▲	▼▼	▼ Slightly negative
6. Nature overexploitation	▼▼	~	▼▼	▼	▼▼	▼▼ Moderately negative
						▼ Highly negative

## B. Future nexus interactions

*Scenarios focused on synergies among biodiversity, water, food, human health and climate change have more beneficial outcomes for global policy goals (e.g.-SDGs)*



- The probability of climate-induced migration depends on a range of climatic, environmental, social, economic, political, and cultural issues.
- Diverse migration decisions may arise from perception for climate change and its associated multipliers (nexus between water-food-health-occupation) and related subjectivities to mobility, such as people's views on their own agency, and risk tolerance.
- Under this theme of this MOFA project, we have done extensive research on how mobility decisions acts as an adaptative action in different part of Asia-Pacific region.
- Building on these experiences, today we have three panelists with us, who will share the research outcome, experiences, and their point of view on potential solution mechanisms to tackle this complex environmental issue.



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## Displaced by nature, driven by choice: Exploring the factors influencing environmental migrants' habitat preferences in coastal Bangladesh

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### ARTICLE INFO

#### Keywords:

Environmental migration  
Climate change  
Vulnerability  
Well-being  
Rural-urban dwellers

### ABSTRACT

This study examines the factors influencing environmental migrants' habitat preferences in southwestern Bangladesh. Using a multi-stage sampling technique, we selected 408 households in rural and urban areas, who had moved to their current locations due to climatic extremes. We applied relevant regression models to analyze the complex interplay of socioeconomic, environmental, and institutional factors shaping migration decisions. Our empirical results suggest that, despite having greater access to services in cities, migrants reported lower levels of well-being than their rural counterparts, which could be attributed to reduced social cohesion and

Systematic Review

## Climate-Induced Migration in India and Bangladesh: A Systematic Review of Drivers, Impacts, and Adaptation Mechanisms

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**Abstract:** Climate-induced migration has emerged as a major concern in India and Bangladesh, due to their geographical vulnerability and socioeconomic conditions. Coastal areas, such as the Sundarbans and the Ganges–Brahmaputra Delta, face relentless threats due to rising sea levels, cyclones, and floods. These factors force millions to relocate, resulting in rural–urban transitions and cross-border movements that worsen urban challenges and socioeconomic vulnerabilities. For this, a systematic literature review of the Scopus database was undertaken using Preferred Reporting Items for Systematic Reviews and

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## When waters turn against communities: Unraveling water governance, security, and household well-being in hazard-prone coastal Bangladesh

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### ARTICLE INFO

#### Keywords:

Water governance  
Security  
Households

### ABSTRACT

Water insecurity, intensified by climate change, environmental degradation, and unsustainable resource management, poses a significant threat to human well-being in coastal regions. This study examines the interrelationships among water governance, household well-being, and water security in southwestern Bangladesh.