

# DELTA: PRESENT AND FUTURE

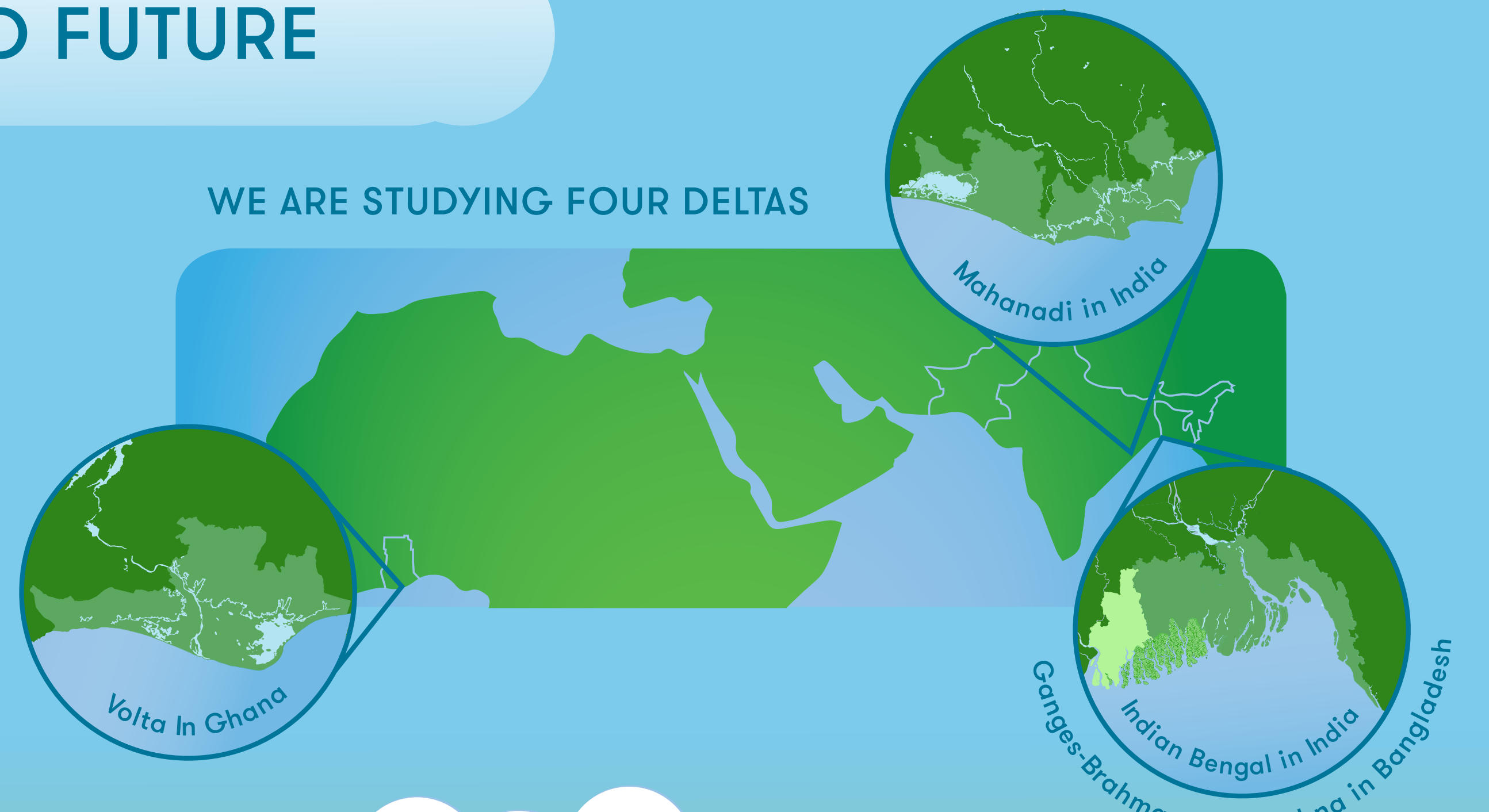
## WHY SHOULD WE CARE ABOUT DELTAS?



Home to 500 million people



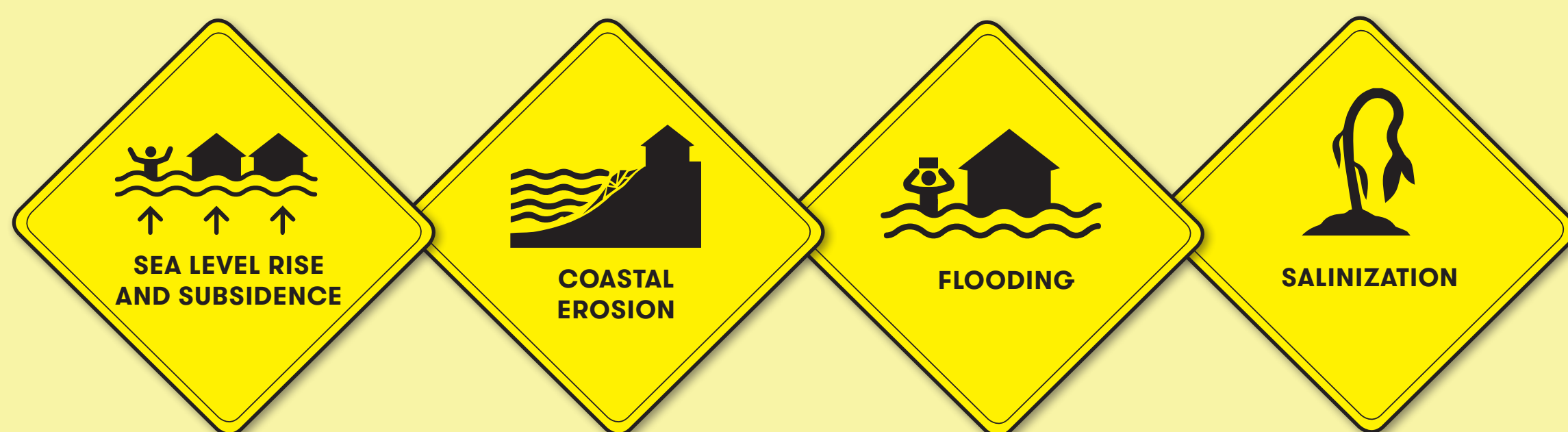
## WE ARE STUDYING FOUR DELTAS



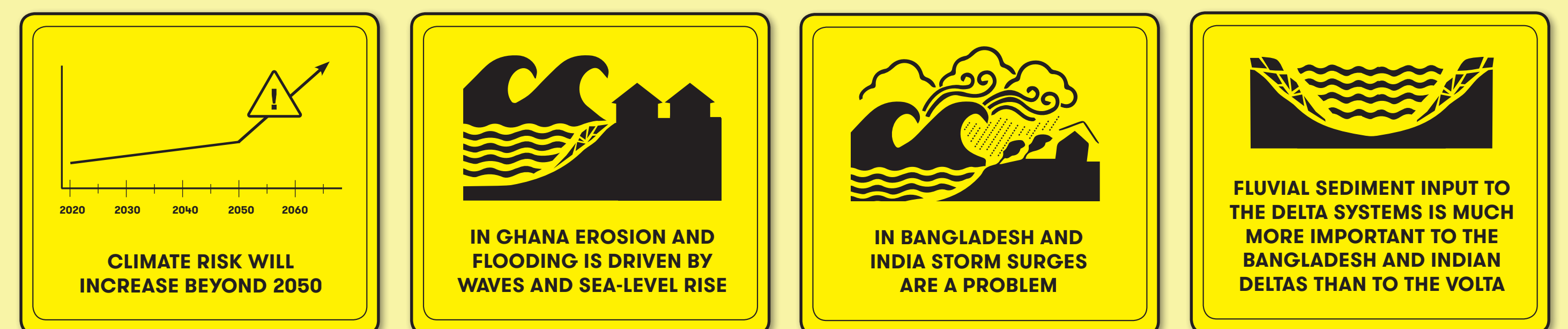
## PRESENT SITUATION

## FUTURE SITUATION

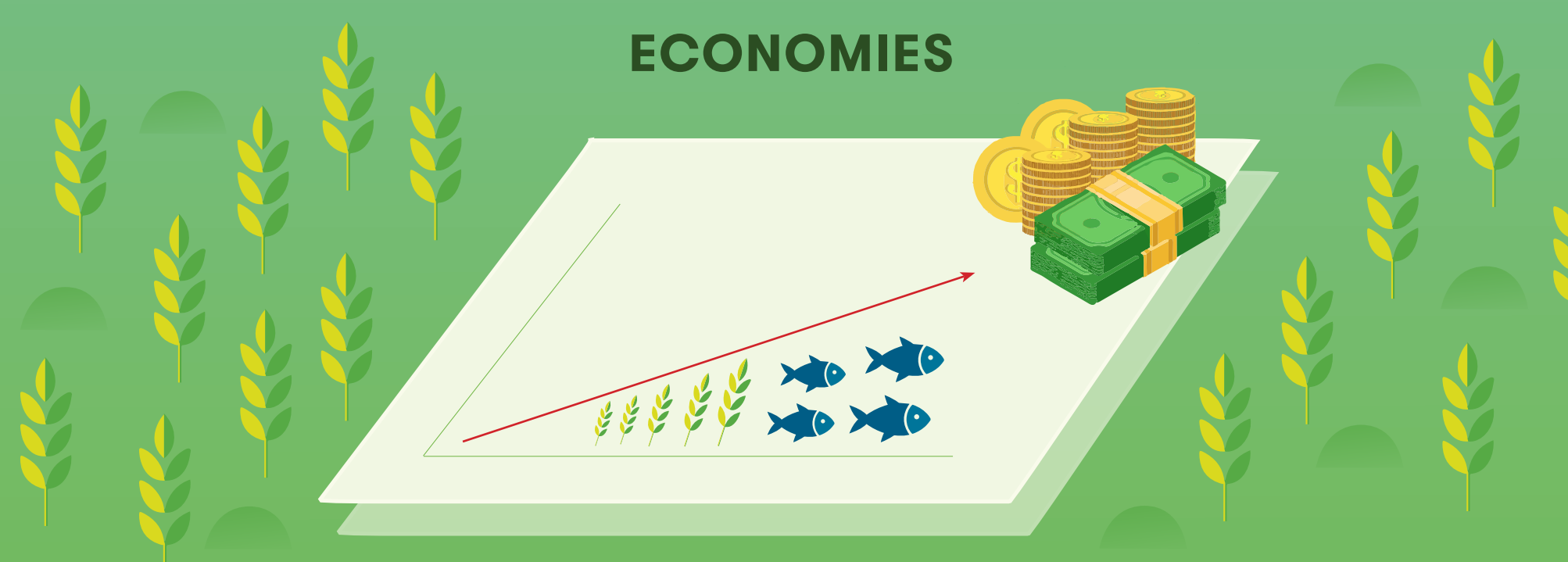
### EXPOSURE TO CLIMATE AND ENVIRONMENTAL CHANGE



### CLIMATE AND ENVIRONMENTAL RISK VARIES FROM PLACE TO PLACE

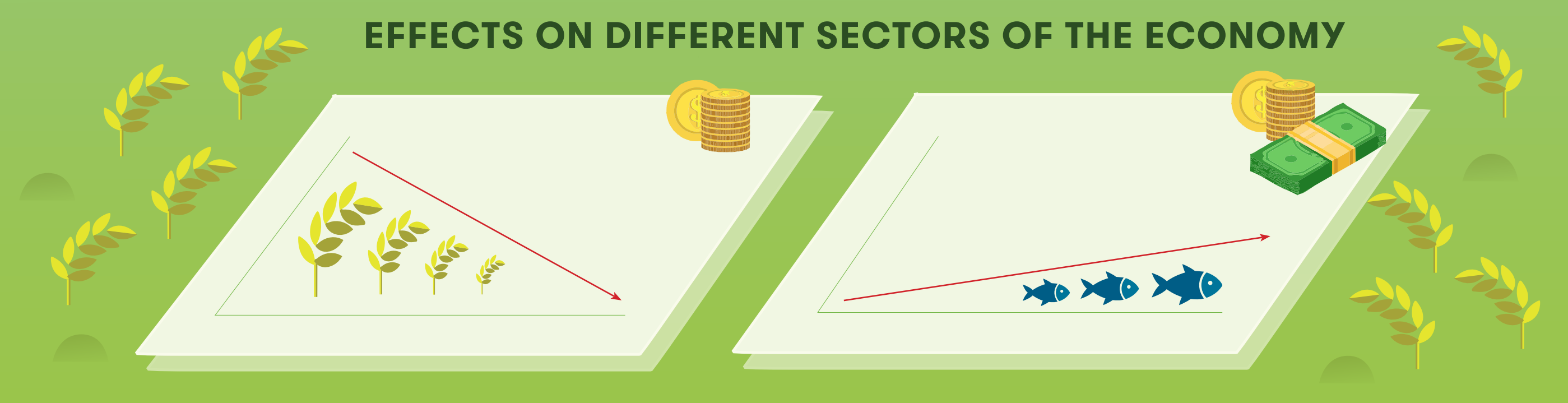


### ECONOMIES



Deltas contribute significantly to national economies.

### EFFECTS ON DIFFERENT SECTORS OF THE ECONOMY



Agriculture will become less significant in delta economies due to loss and degradation of land.

In Bangladesh brackish water and mixed species aquaculture will become 3-12% more productive by mid-century.

### MIGRATION



People in deltas are mobile with a trend for economically-driven rural-urban migration.

### CHANGING MIGRATION PATTERNS



Effects of climate and environmental change on livelihood sustainability add to migration flows.

### ADAPTATION

Adaptation is widespread and diverse:



Migration for diverse reasons including adapting to climate and environmental change

Modifying/intensifying livelihoods

Taking out loans

Planting trees

Constructing dikes to protect land.

### MORE ADAPTATION WILL BE REQUIRED



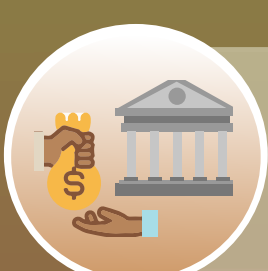
Female-headed households do fewer adaptations and their capacity to adapt tends to be lower.



Strategic delta planning is being developed, e.g. the Bangladesh Delta Plan 2100.

## WHAT CAN WE DO TO ADAPT TO CHANGE?

### SUPPORT PROACTIVE ADAPTATION



Early infrastructure protection and capital investment are effective and less costly than having to remediate post disaster.



Effective adaptation policies and interventions are needed in addition to economic growth.



Appropriate legislative frameworks will support effective policy implementation.



### ADDRESS THE CURRENT POLICY GAP AROUND MIGRATION



Reducing rural-urban economic disparities may alter migration patterns and trends.

Address the policy gap in human rights support for displaced persons.

Migration provides opportunities through financial and social remittances and knowledge exchange that are important for *in situ* adaptation.

### SOURCES OF EVIDENCE

- Risk mapping based on the IPCC framework (hazard, sensitivity, vulnerability, adaptive capacity).
- A Computable General Equilibrium model based on custom Social Accounting Matrix and Input-Output tables.
- An Integrated Assessment Model comprising component modules for coastal erosion, forestry, animal husbandry, inland capture fishery, soil salinity and household decisions.
- A sex-disaggregated survey of 5430 households and 2682 questionnaires with migrant receiving areas, (with surveys of women as well as men within male-headed households).
- Four adaptation policy directions (scenarios) comprising different portfolios of adaptation options.
- Inventories of documented adaptations in each delta.
- Governance analysis.