

Understanding coastal transformations from a livelihood perspective in Bay of Bengal, Chilika Lagoon, India



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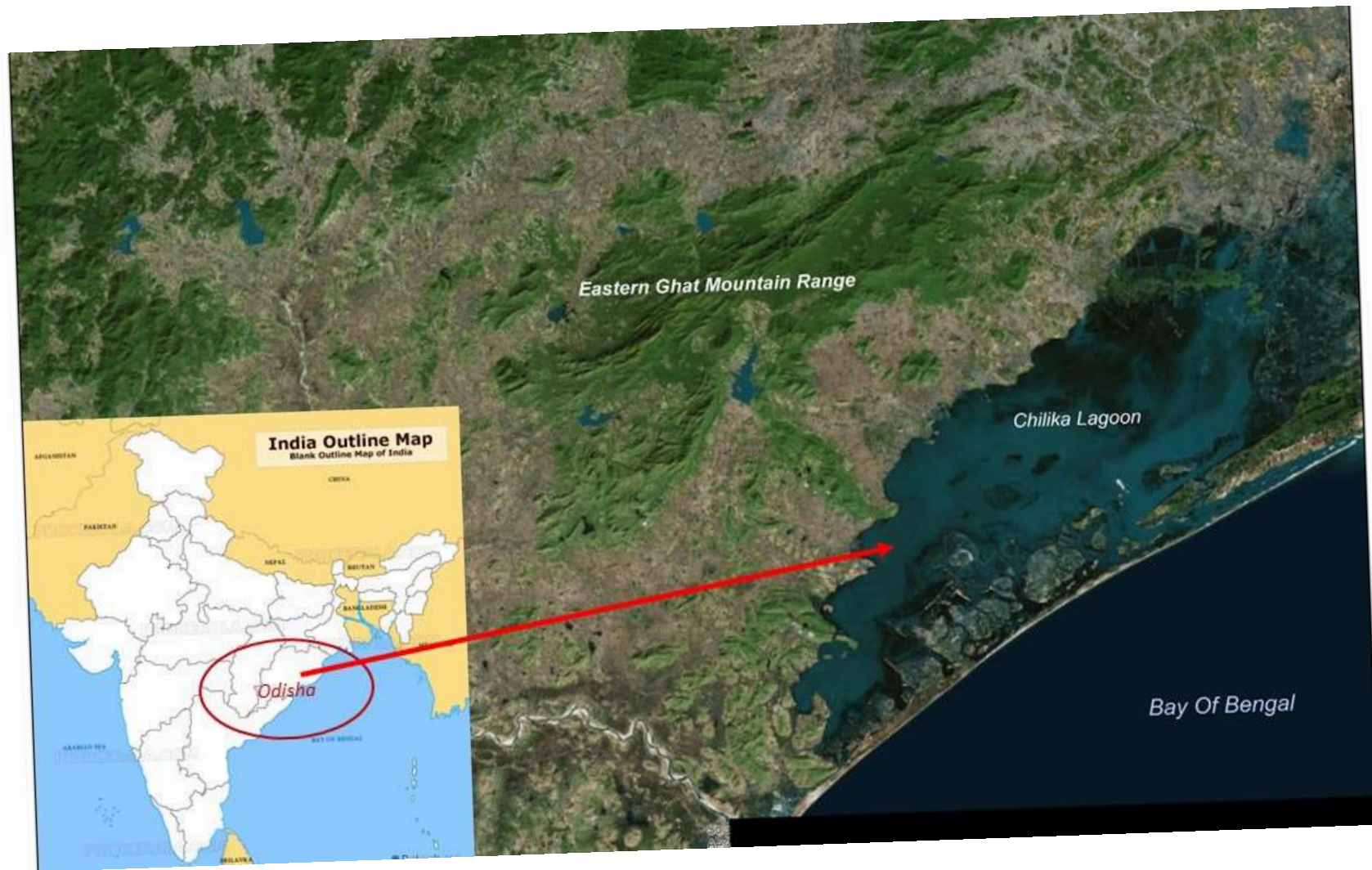
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Introduction

- Connecting transformation and livelihoods perspectives
- Transformation is a physical and/or qualitative change in the form, structure or meaning making which may be unintentional or deliberate (O'Brien, 2012)
- Context, resources and institutions, livelihood strategies = sustainable livelihoods
- Complexities, uncertainties and multilevel drivers associated with livelihood processes impacting desired results
- What implications for transformation?





WWF

WELCOME TO CHILIKA LAGOON A BIRD WATCHER'S PARADISE.



Chilika
Development Authority

SALIENT FEATURES OF THE LAGOON :-

- > WINNER OF RAMSAR WETLAND CONSERVATION AWARD.
- > ASIA'S LARGEST BRACKISH WATER LAGOON & INDIA'S LARGEST RAMSAR SITE.
- > AREA OF LAKE-MONSOON-1165 sq. km. SUMMER-906 sq. km.
- > FED BY TIDAL INFLOW OF SEA AND FRESH WATER INFLOW FROM 52 RIVERS & RIVULETS.

BIRD FACTS:- OVER A MILLION BIRDS OF 230 SPECIES.

- > (74 AQUATIC, 51 WADERS, 91 LAND BIRDS & 14 OTHER SPECIES)
- > 95 SPECIES ARE MIGRATORY-FROM CASPIAN SEA, LAKE BAIKAL, NORTH RUSSIA, CENTRAL & SOUTH EAST ASIA, LADAKH, HIMALAYAS
- > 15 DUCK & 2 GEESE SPECIES COVER 70% OF MIGRATORY BIRDS.
- > OTHER SPECIES ARE COOTS, RAILS, CRANES, WADER/SHORE BIRDS, PELICANS, GREBS KITES/EAGLES/KINGFISHER.

OTHER FACTS:- 217 FISH SPECIES (FRESH WATER, ESTUARINE & MARINE)

- > MORE THAN 100 IRRAWADDY DOLPHINS FOUND HERE.
- > 7 AMPHIBIAN SPECIES, 30 REPTILE SPECIES, (12 LIZARD, 18 SNAKE), 18 MAMMAL SPECIES IN HABIT THIS LAKE.

ENDANGERED SPECIES OF THE LAGOON :-

- > BARKUDIA INSULARIS (LIMBLESS, LIZARD), IRRAWADDY DOLPHIN, FISHING CAT, WHITE BELLY SEA EAGLE, OSPREY, SPOONBILLED SANDPIPER, DALMATIAN PELICAN, SPOT BILLED PELICAN, PALLAS'S, FISH EAGLE, INDIAN SKIMMER, LESSER & GREATER ADJUTANT, PAER'S POCHARD & WOOD SNIPE.



LESSER FLAMINGO

COMMON KINGFISHER



PHEASANT TAILED JACUNA



BRAHMINY SHELDUCK



IRRAWADDY DOLPHIN

Satya



1. Coping strategies for livelihood subsistence

- Initial responses to early challenges posed by livelihood crisis

- Take loans and credit
- Mortgage and sell assets
- Change in food habits
- Discontinue children's education
- Rearrange personal, social and professional relationships



Example of coping

- It is difficult to go fishing on an empty stomach. Only when I have arranged firewood for the chullaha (wooden stove) and rice for the pots to cook food, hunger of my family will calm down and I will have the peace of mind to go fishing. In a situation where we lack daily supplies to cook food, I do whatever options are readily available. Who has the time to think about the future? Not now!!

A Fisher from Chilika Lagoon, India

2. Intensification as livelihood strategy

- Intensification becomes imperative as people approach a point of saturation in pursuing immediate coping strategies



- Selection and use of technology (fishing gear)
- Break seasonality rules
- No restriction on quantity or size
- No time and space restriction
- No species restriction
- Focus on single species (determined by availability, price, and market)
- Aquaculture, plantation

3. Extensification as a livelihood strategy

- Increasing the range within which livelihood activities can take place

Travel long distances

Capture strategic areas

Look beyond a single resource
(Lagoon, forest, etc.)

Collect all available species

Product extensification

Target all species / products

More organized groups

Aquaculture



4. Diversification as a livelihood strategy

- Moving beyond primary livelihood activities or sources and adding more options in terms of livelihood sources



- Activities linked to primary occupation (e.g., fishing)
- Use of available natural capital (private land assets)
- Host of non-fishing occupations
- Engage women and children in income generation
- Tourism

5. Migration



Long-term migration

Seasonal migration

Migrate within the state

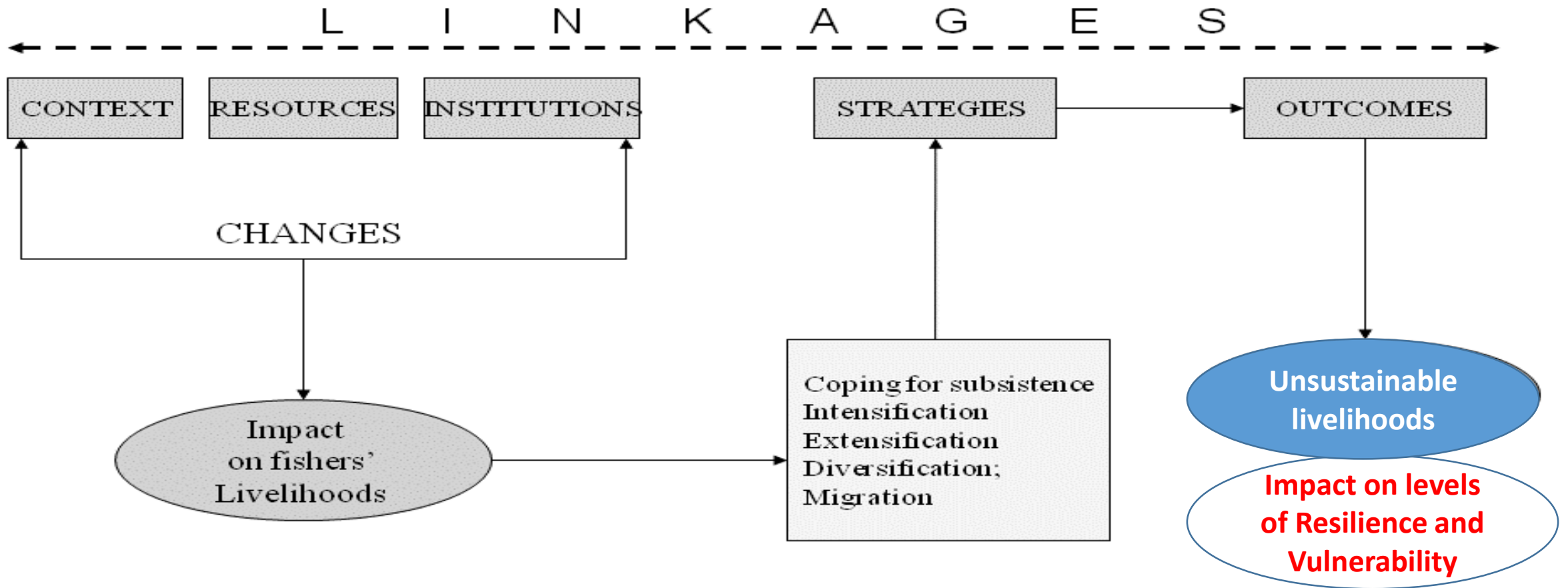
Migrate outside the state

Permanent migration

Various (overlapping) terms to explain migration:

Out-migration; Permanent migration; Semi-permanent migration; Rotational migration; Seasonal migration

LIVELIHOODS FRAMEWORK



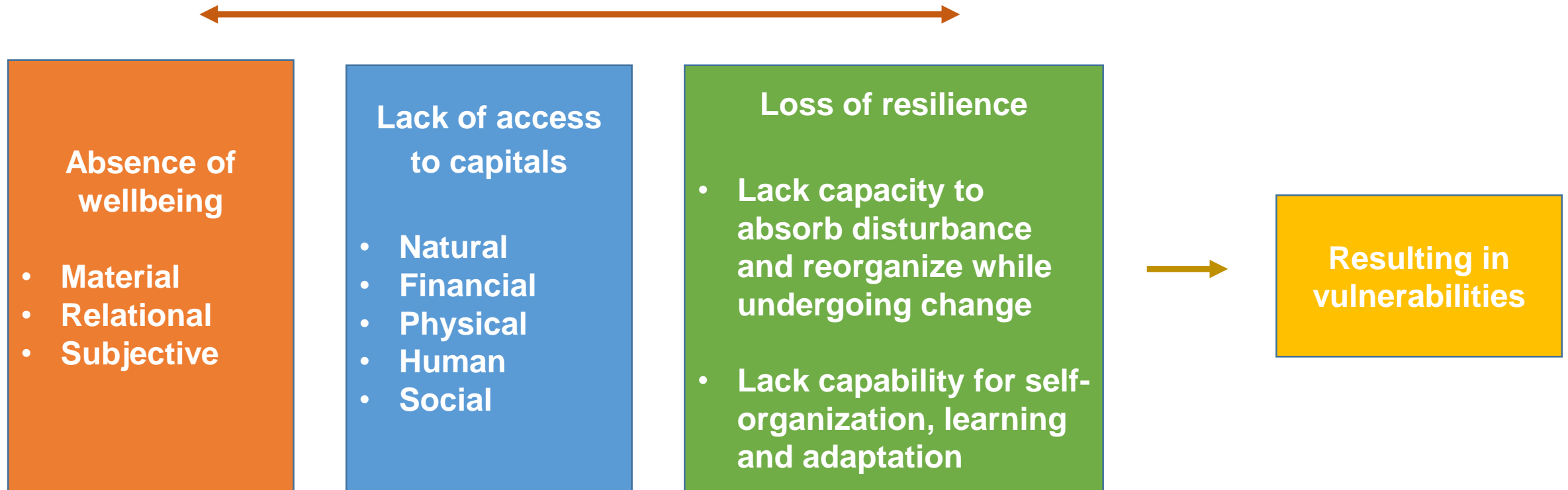
Sustainable livelihood framework: Examining the strategies and outcomes (Modified from Scoones 1998; Bebbington 1999)

Is transformation possible?

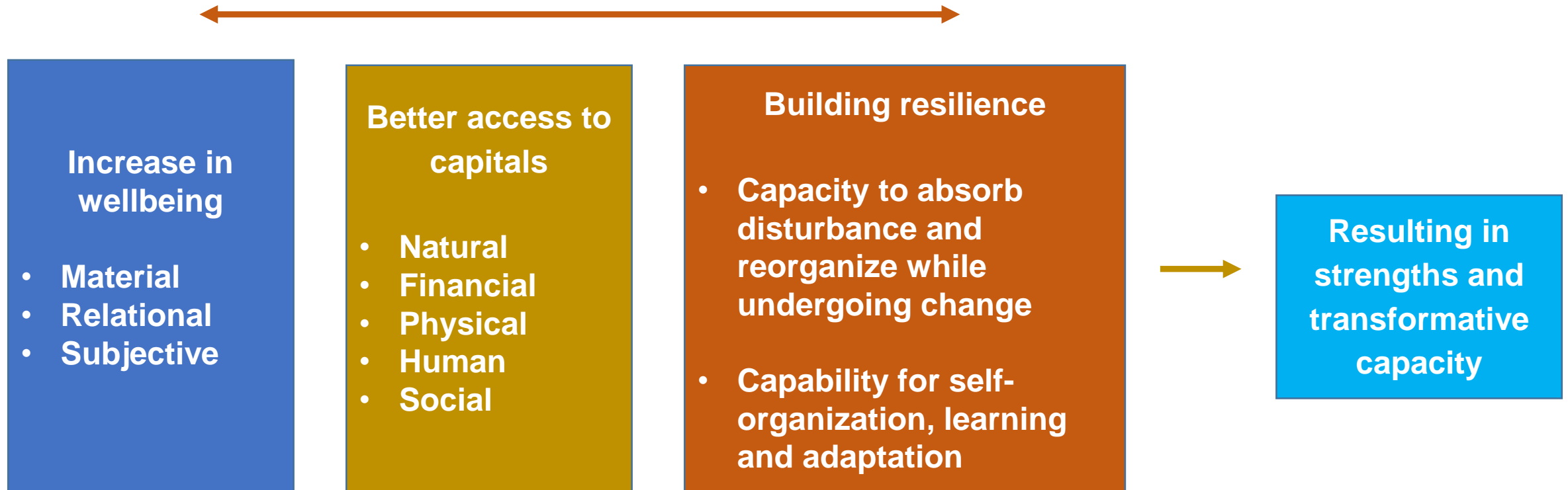
Moving from vulnerability to viability

- A state of being with others, where human needs are met, where one can act meaningfully to pursue one's goals and where one enjoys a satisfactory quality of life (McGregor 2008: 1)".
 - Material, relational and subjective (Gough and McGregor 2007)
- Capitals or resources enable individuals to navigate their position when they are vulnerable.
 - Lack of access to capital assets - human, physical, natural, social and financial (Bebbington 1997, 1999)
- Resilience is capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks (Walker et al. 2004)

Is transformation possible?



Is transformation possible?



Size of fish equals power of women



Who defines the narrative / discourse of transformation



How transformation is
'framed' by certain groups
as significant or not

- To what extent that framing is used to ignore or facilitate change processes

Transformation can create
**new opportunities and
upward social and
economic mobility** for
some but **exclude others**

- Who benefits and who loses
- Uneven distribution of benefits and impacts
- Disproportionately impact poor, disempowered and other marginalized groups

Power and politics at the core of transformation

Can a SES be deliberately steered towards or away from transformation



Question of who wins and who loses

- Involves the complex politics of social interactions and relationships of power

- Transformation as an iterative process with bouts of success and failure



- What implications for livelihoods, conservation, governance, sustainability...



THANK YOU



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