

# Converting local conflicts over water to cooperation in a changing climate



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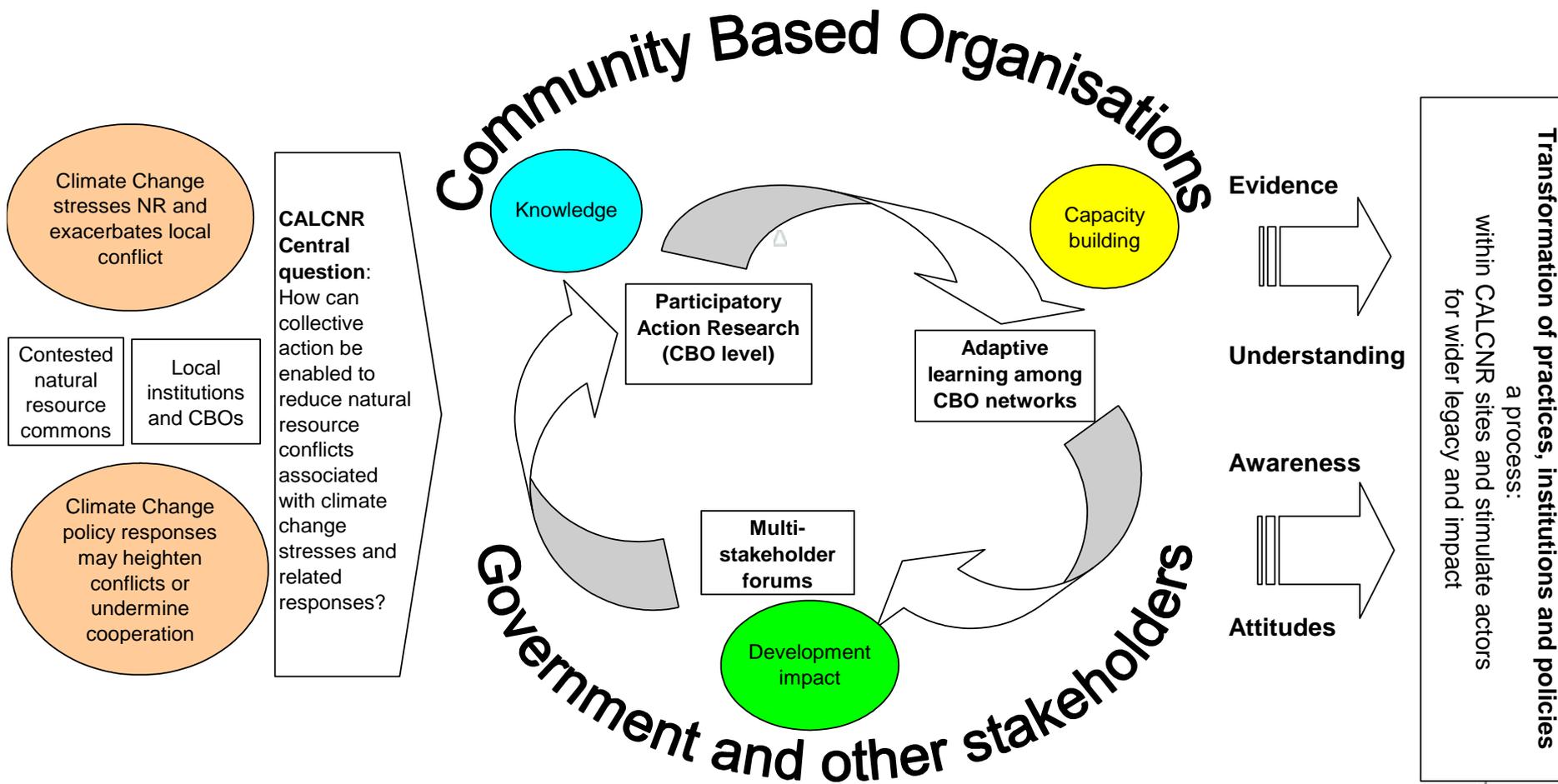
Research project:

## **Community based adaptive learning in management of conflicts and natural resources in Bangladesh and Nepal (CALCNR)**

supported by Netherlands - NWO

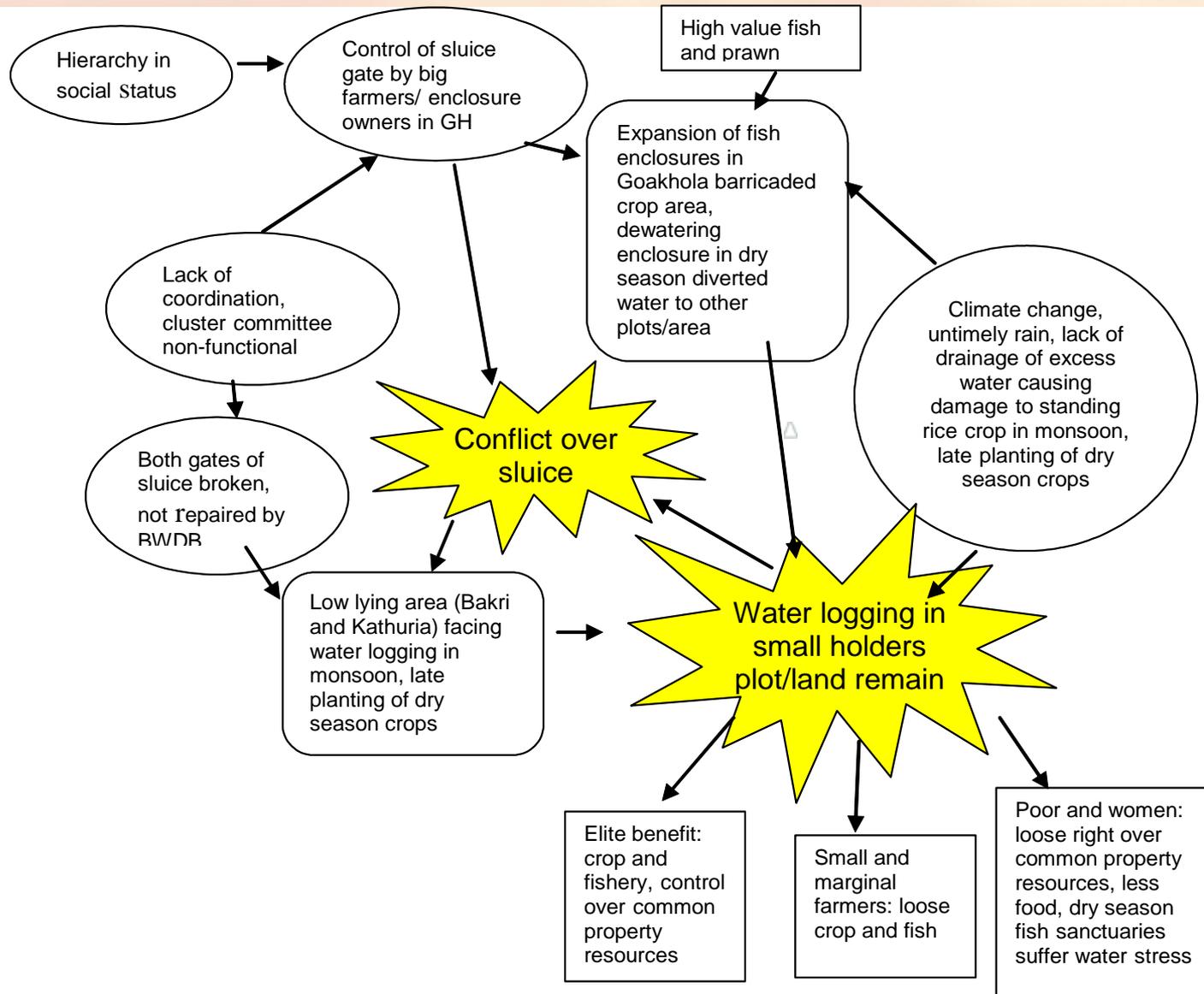
- *Research question:* "How can collective action be enabled to reduce natural resource conflicts associated with climate change stresses and related responses?"
- *Method:* action research in 70 sites working with community based organisations (CBOs) complemented by adaptive learning among networks of CBOs and multi-stakeholder forums.
- This paper focuses on two cases in Bangladesh

# CALCNR theory of change/design



# 1<sup>st</sup> case: Narail landscape





Participatory  
Action  
Research  
output:  
causes and  
effects of NR  
conflicts

1<sup>st</sup> case part of actor position analysis

Actors	Position	Interests
CBO executive committees	Represent our members. Should be represented in relevant sluice gate committee.	Waterlogging free area. Keep community specially big farmers and gher owners happy. To be elected again next term.
Small and marginal farmers who are also subsistence fishers	Should get equal opportunity for farming in their land without waterlogging. Want sluice gates open to drain out excess water, and to let in fish to spawn.	Early rice variety to avoid waterlogging. Want representatives/their interests considered in water management decisions More fish for food and for income
Big farmers	We own more land and sluice gates should be operated according to our needs. Free to use water and grow crops as they think	Demonstrate power. Control over sluice gate operation. Higher production, expansion of business
Big farmer & enclosure owner	We control the local economy and most of the local manpower. Poor people can't fish or enter our <i>ghers</i>	Higher production, more power, embankments remain intact that make enclosures feasible, water management that serves their operations.
Sluice gate committees	To take care of main water users' interest	Opening and closing gate when asked provided this benefits or at least does not harm themselves High production from own land. Power.
BWDB	Authority over all sluices and embankments. No inlets can be made in embankments. Know best what is right for the area. Maximise production.	Direct water management within project areas. Focus is on rice and to lesser extent other crops (rather than fish). Construction and benefits from contractors
Upazila (sub-district) and district administration	Responsible for public lands and waters. Represent national interest. Hold authority.	Maintaining power. Operating existing systems for benefit of those with links to them. Obtain benefits from allocating (leasing) out use rights

# 1<sup>st</sup> case: resolving local conflicts

- Action research focused on individual CBOs, and also their interactions.
- Separate sessions with actors to understand positions, then bringing together CBOs.
- Found a common interest – once distant lower communities are represented in sluice committee and operation is adjusted, then they contributed to maintenance – connected communities both benefit.
- Changed operation of sluice to help more distant lower area
- Then made cropping changes to improve returns considering water regime.
- Fish and aquatic conservation possible - added value and sustains floodplain ecosystem.

## 2<sup>nd</sup> case: water related conflict in Hakaluki Haor

- Two communities used water from the same stream.
- Climate stress caused shortage of water for dry season irrigation, and induced conflict between the two communities.
- Mediation failed to change the position of the upstream village that diverted a stream away from neighbouring villages.
- Participatory action research facilitated by FHRC team working with existing CBO.
- Revealed knowledge of long lost springs. Silted up, but rubber garden agreed to villagers trying to find the springs.
- Elders and youths from the downstream community dug out 60 spots and 37 springs gave useful water. Community then cooperated to maintain stream

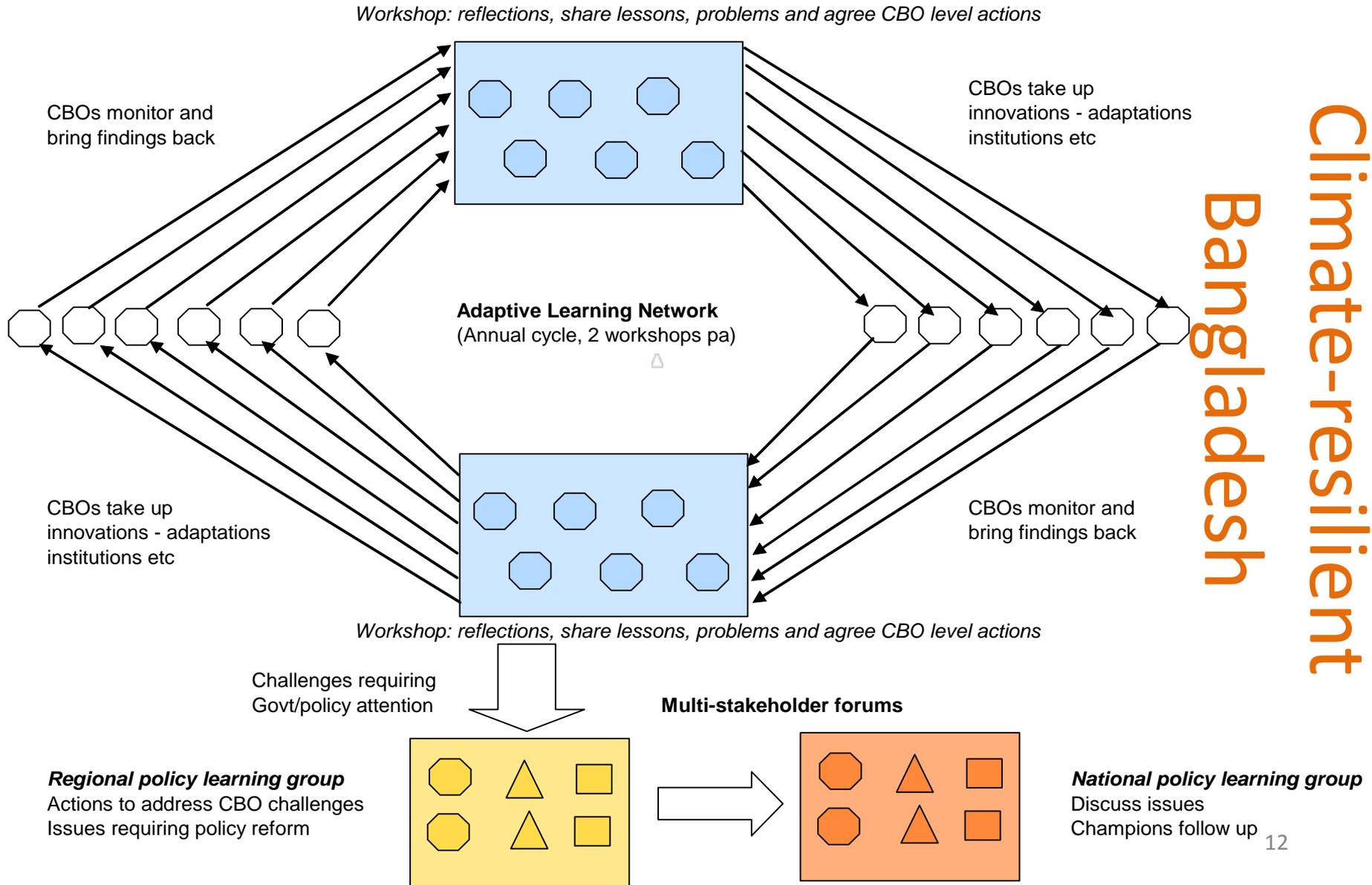


## 2<sup>nd</sup> case: outcomes

- Community cooperated to make a small seasonal reservoir to hold irrigation water.
- Avoids flooding neighbouring fields.
- Through collective action 200 farmers could irrigate their lands and bypass the conflict. Able to irrigate over 200 ha extra, and ensure a crop before entire area is inundated in monsoon.
- Farmers pay cost.
- Farmers are now adopting crops that use less water and can be harvested earlier to minimise vulnerability to flash floods
- Outcomes improved resilience and ability of the community (CBO) to cope with challenges







# Conclusions

**Gaps in policy application** are a source of conflict, for example elites access areas with changed characteristics due to climate factors.

**Dialogue, learning networks and forums** change understanding, attitudes and positions of actors, at local level using participatory methods.

**Knowledge** can encourage cooperation by improving understanding of resource limitations, or by revealing neglected indigenous knowledge.

**Innovations** that overcome a natural resource constraint underlying conflict galvanize collective action.

**Incentives** are needed: paying gave some disadvantaged communities the right to a service /natural resource they had been denied; conflict resolution gives CBOs and their leaders status.

Neutral **intermediaries** (government, researchers, or other CBOs) can play an important enabling role

# Thank you



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