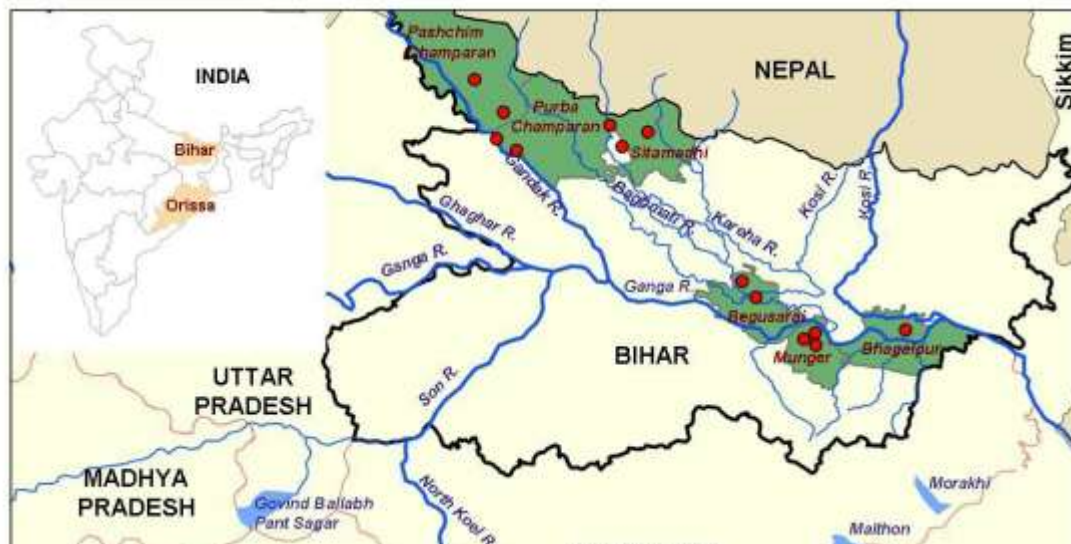


PfR India country factsheet

Country: India

Project Area: Ganda-Kosi-Son (Bihar)

Organization(s): Cordaid, Caritas India, Wetlands International South Asia (WI-SA), Netcoast.



Key data about the project area (area of the beneficiaries):

Population: 103,804,637

Geography: 94,163 km²

Main livelihood sectors: agriculture, fisheries

Beneficiaries #: 3000 households (84,422 beneficiaries – caritas india website)

Beneficiary groups: poorest communities in the floodplains

What types of hazards occur in project site?

In Kosi-Gandak floodplains, communities suffer predominantly from flooding. Construction of embankments forced concentration of sediments in the river channel rather than its fanning in the delta.

2008 flood due to heavy monsoon rains and consequent breach in Kosi embankment. The river changed course, and areas who never experienced flood before were inundated. 2.3 million people were affected.

How are these hazards exacerbated?

- *By human activity?* (ecosystems degradation)

The cultivation of riverbanks led to increased risk of flooding. There are insufficient incentives at community level to participate in ecosystem conservation with a view to DRR. At a national level, higher erosion rates have contributed to sedimentation of river beds, siltation of drainage channels, irrigation canals and most importantly wetlands. Degradation of catchments has contributed severely to losses in the hydrological regulation capacity of watersheds, leading to greater frequency and severity of floods and prolonged droughts. Surface water resources are under pressure due to the demands of urbanisation, agriculture, hydropower development etc. Particularly the Ganga and Yamuna rivers that have nurtured civilisations for centuries are currently facing drastically reduced flows and deterioration of water quality due to construction of hydraulic structures and continuous dumping of industrial and domestic waste.

- *(?) Politics?*

Development planning and policy making could be more inclusive towards different levels of society. Water allocation policies are heavily biased towards rich farmers who generally own land in the head waters pushing the weaker sections of the society to the downstream areas prone to flooding and

other environmental hazards. Often these policies lead to resource use conflicts between upstream and downstream users ultimately leading to migration. Issues emanate from a lack of basic understanding of the crucial role of natural resources in the economy of the marginalised communities. Development based on engineering and technical measures instead of integrating climate change, government is not effective in implementation policies.

- *(?) Economics?*
Economic policy, which is focused on inclusive growth, aims to create value added and new employment opportunities in the forward and backward linkages within the primary sector. There is an emerging policy emphasis on making insurance and banking available to vulnerable and marginalised groups.
- *Climate change?*
For South Asia, there is high confidence that unusually warm days and warm nights will increase, and unusually cold days and nights will decrease. Climate change projections indicate a temperature increase of 2°C - 5°C for India by 2100.
Several studies show an increase in frequency/intensity of heavy precipitation events over South Asia, but at the moment, we have only low confidence in that projection. India is expected to see a 15% to 40% increase in rainfall; and a sea level rise of 0.18 – 1.0 m by 2100. Other changes include increases followed by long-term decreases in available freshwater from glaciers and snowmelt. These trends can also negatively affect health outcomes (see context analysis for details).

How are people's livelihoods affected?

- *Human*
People possess low coping mechanisms. Communities' awareness of opportunities for risk reduction is limited.
- *Social*
The two States' caste hierarchy, which governs access to resources, determines to what extent stakeholder groups are included in or excluded from livelihood strategies. This has negative implications for participation of the vulnerable communities, community institutions and civil society organisations within the entire process of DRR.
- *Physical*
- *Financial*
Risk transfer mechanisms are weak and communities usually have no access to insurance plans.
- *Natural*
Communities are vulnerable due to livelihood systems that are dependent on natural resources, like agriculture and fisheries, with limited skills and economic opportunities for diversification.

What are the solutions offered by the alliance?

- *Preparedness*
- *Early warning*
- *Mitigation*
- *development*