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Evidence for Action: Aligning the Climate and SDG Agendas
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Climate change signifies alterations that go beyond common atmospheric states leading to average rise in global temperature – commonly called “global warming”

Earth’s mean surface temperature already risen by 1.1 degrees Celsius on average in comparison with late 19th-century – most of warming over last five decades

Significant changes in rainfall patterns – receding or delayed arrival of monsoons or rising intensity of rainfall – often spread over fewer days

Rise in frequency & intensity of floods, droughts, heat waves, & storms – consequence of changes in climate regimes

Bihar is one of the climate vulnerable states in India

In Bihar, climatic patterns shown notable variations over relatively short period – last three to four decades

The state is one of the resource-abundant Indian states (in terms of groundwater, perennial rivers, alluvial fertile lands) among those located in the Indo-Gangetic Plains

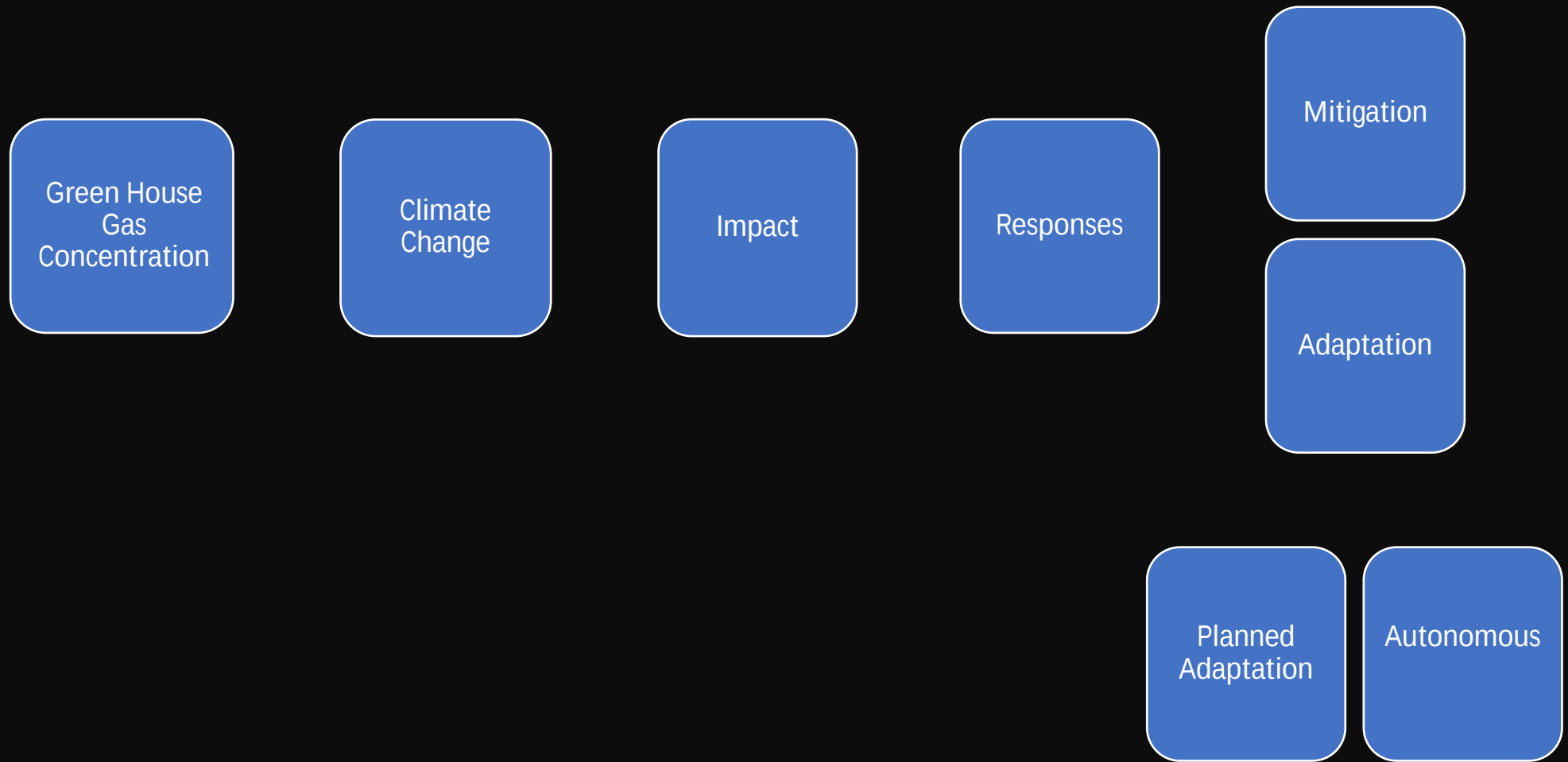
But its agricultural productivity is one of the lowest in the country

Agriculture generates 20-21 per cent of Bihar's SDP

It employs an overwhelming 90 per cent of its labour force

Proportion of marginal & small farmers found to be a significant 92.5 per cent for Bihar

Thus, performance of agriculture critical to ensure inclusive growth, poverty reduction & food security



Effectiveness of planned (versus autonomous) adaptation to cope with climate change

Inherent ability/ traditional knowledge has positive impact on rice & wheat yields

- o reinforced by households' responses on usefulness of traditional knowledge (an overwhelming 84.9 per cent in Gaya & almost entire sample, 99.2 per cent, in Purnia)
- o effectiveness of ancestral knowledge ranked between medium & very high for both genders found, around 33 to 40 per cent of respondents
- o impact of inherent ability channel supplemented by increases in literacy rate

Community networks, in general, have a positive impact on both rice & wheat yields

- o a significant percentage of respondents in both districts perceive ICN to be very helpful (around 61.4 per cent in Gaya & 66.9 per cent in Purnia)
- o corroborated by households' responses on effectiveness of FCN & ICN – around 29 to 40 per cent ranked them between medium & very high
- o impact of formal community networks (FCN) reinforces with increase in literacy rate, but that of informal community networks (ICN) reduces with increase in literacy rate – may be due to weakening of social & local ties as members of farming households attain higher literacy levels & move away or migrate to other locations for alternative opportunities

Higher the influence of community networks in agricultural adaptation, lower the impact of inherent ability & vice-versa

