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Research Title: Sustainable Water Management in the Kiul Haroher Basin of South Bihar, India

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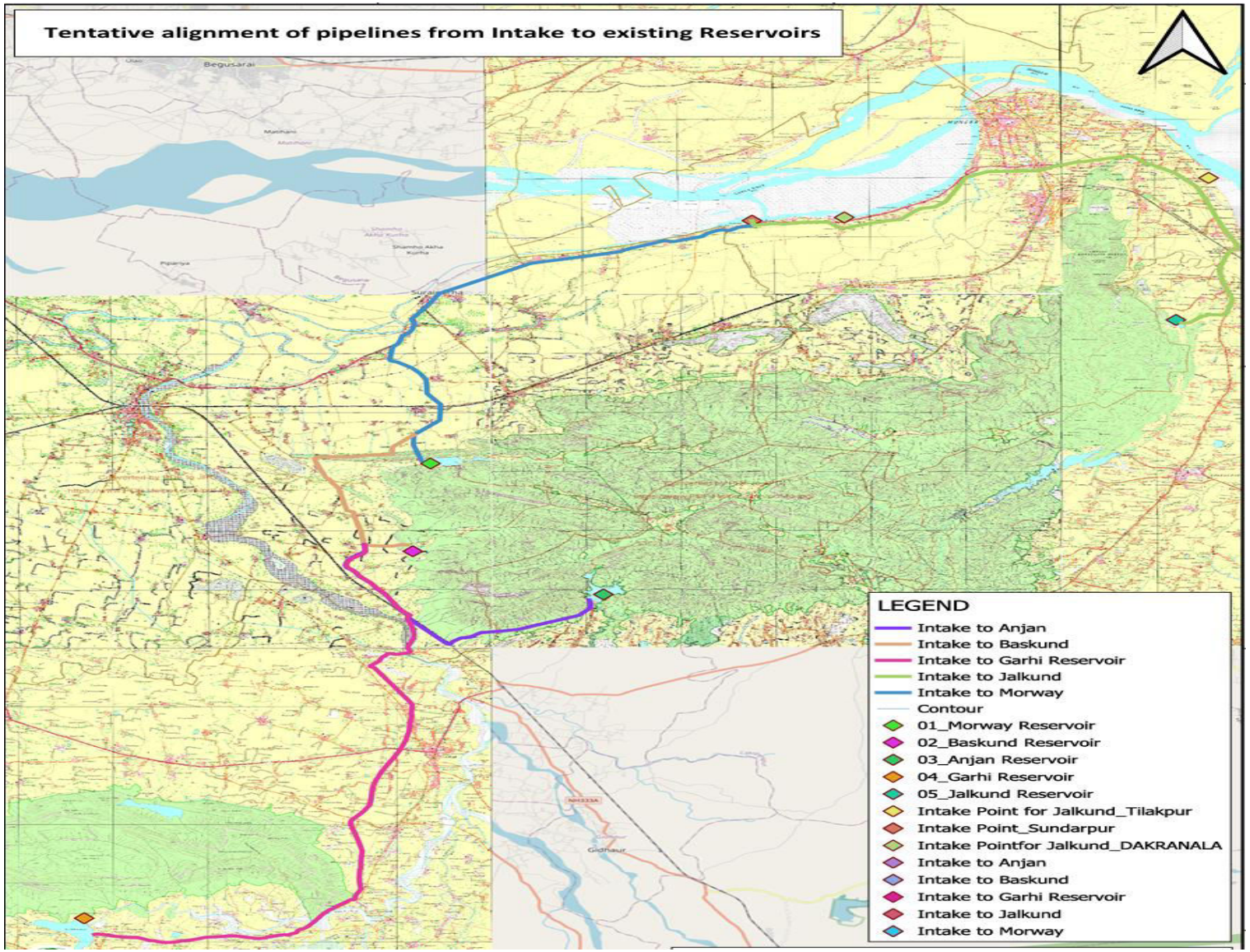
INTRODUCTION

- Irrigation intensity in Kiul-Haroher basin of South Bihar vary from 128% to 144% and overall irrigation intensity for south Bihar worked out to 148.98% with respect to the ultimate envisaged cultivated area.
- Low intensity of irrigation in south Bihar is due to inadequacy of water resources and lack of feasible schemes to trap the monsoon runoff.
- The agro climate condition of south Bihar is not far different from those of the north Bihar. With availability of water the south region can also achieve higher irrigation intensity equal to that of the north Bihar.

METHODOLOGY

- The transfer of surplus water of River Ganga into water-deficient reservoirs of South Bihar is an innovative solution aimed at resolving water shortages in South Bihar's agricultural regions, particularly during the Kharif and Rabi seasons.
- This project envisions capturing surplus floodwaters from the Ganga River during the monsoon (June 1 to October 31) and storing it in reservoirs strategically located in Lakhisarai, Munger, and Jamui districts.
- By making use of this excess water, the scheme guarantees a steady irrigation supply, minimizing crop losses, increasing aquacultural output, and enhancing the livelihoods of local farming communities.
- The water will be lifted using powerful pumps and transferred through a pressurized pipeline system, ensuring minimal loss and effective distribution.

RESULTS AND DISCUSSION



- This initiative will significantly enhance irrigation potential in the region, creating long-term benefits for the agrarian communities

CONCLUSIONS AND RECOMMENDATIONS

- Climate change exacerbates drought risk by causing rising temperatures, altering precipitation patterns, and increasing evaporation, leading to drier conditions and more frequent/severe droughts in south Bihar regions
- It is, therefore necessity to tap and utilise Ganga water in the monsoon season to meet the shortfall of irrigation need in the Kiul-Harohar basin.
- It seems that Ganga water may have to be planned to be transferred to the Kiul-Harohar basin by diversion through lifting water through pumps, making it possible to raise the average irrigation intensity of the region to at least 167%.