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**FRAMEWORK FOR GARH MUKTESHWAR RIVERFRONT
DEVELOPMENT AND MANAGEMENT**

- Muskan Goel, Prof. SK Singal, Dr.Venu Shree

INTRODUCTION

- **Importance of Riverfronts:** The economic well-being of cities is intricately tied to the rejuvenation of city centers, particularly along riverfronts, making it crucial for overall urban advancement.
- **Revitalization Framework:** Garh Mukteshwar in UP, India, is the focus, proposing an economically sustainable revitalization framework utilizing a unique Multi-Criteria Evaluation (MCE) approach.
- **Holistic Strategy:** The study proposes an original holistic strategy for Garh Mukteshwar's riverfront, emphasizing community engagement, environmental sustainability, and protection of cultural heritage.
- **Model for Development:** Garh Mukteshwar is presented as a potential model for riverfront development, advocating cooperative and integrated approaches for transformative and sustainable urban development.
- **Community Involvement:** Stakeholder engagement is highlighted as a key factor throughout the development process to ensure community needs are met and to foster a sense of ownership in the project.

IMPORTANCE OF SOCIAL DIMENSION

A crucial duty of societal consequences evaluation is to predict how the identity of a community may change due to a specific project. These categories can be used for identifying and analysing the social impacts of urban riverfront plans and projects. (Sairinen & Kumpulainen, 2006)

Social Dimension Categories	Attributes
Resources and identity	<ul style="list-style-type: none"> • Key attributes and advantages of the region • Perspectives on the ecological, cultural, or historical significance • Importance in terms of visual, social, and cultural distinctiveness (urban perception, communal character)
Social status	<ul style="list-style-type: none"> • Who are the intended recipients (socially, age-wise, or ethnically) of the planned and constructed housing and service areas? • The function of social or private residential spaces. • Processes involving segregation and/or gentrification
Access and activities	<ul style="list-style-type: none"> • Can the public reach the waterfront zones? • What sorts of activities can be undertaken? • Is access to the waterfront straightforward or challenging? • Inquiries about traffic, parking, and waterfront pathways.
Riverfront experience	<ul style="list-style-type: none"> • Existence of water bodies such as seas, lakes, and rivers. • The significance of rejuvenating encounters, the importance of visual communication, tactile sensations, flavors, sounds, movement within the environment, and a feeling of change as a means of recognition.

CASE STUDY- SABARMATI RIVERFRONT, GUJRAT

Exemplary model in India for urban rejuvenation and a tangible vision for Garh Mukteshwar.

Sabarmati Riverfront Development Project Overview:

- Integration of economic prosperity, cultural preservation, and environmental sustainability.
- Successful case of global and sustainable city vision.

Project Details:

- Significant investment site for public and private institutions.
- Implementation of urban landscaping and transportation schemes.
- No need for additional land allocation due to the current land utilization.
- Transformation from 70 settlements to a vibrant development. (Mathur, 2012)

Social Impact:

- Before the project: 70 settlements with approximately 40,000 families.
- Land used for various activities - market, urban agriculture, laundry, and cultural activities.
- Positive transformation and improved living conditions. (Mathur, 2012)



Aerial view of Sabarmati River (Source- Google maps)

CASE STUDY- SABARMATI RIVERFRONT, GUJRAT

Economic Context:

- Geographical location fostering a "trading mentality" in Ahmedabad and Gujarat.
- Ahmedabad's dynamic economy, ranking as the 7th city by GDP in India. (Pessina, 2012)

CEPT University Proposal:

- Proposal aimed at creating publicly accessible open spaces and recreational areas.
- Expansion to include walkways and promenades for enhanced connectivity. (Pessina, 2012)

Application to Garh Mukteshwar:

- Adapting Sabarmati's strategies to Garh Mukteshwar's cultural, historical, and geographical context.
- Tailoring lessons from Sabarmati's development for the success of Garh Mukteshwar's riverfront project. (Pessina, 2012)



View of Sabarmati Riverfront from Gandhi Ashram, Ahmedabad, Gujarat, India

STUDY AREA- GARH MUKTESHWAR, UTTAR PRADESH

Unique Location:

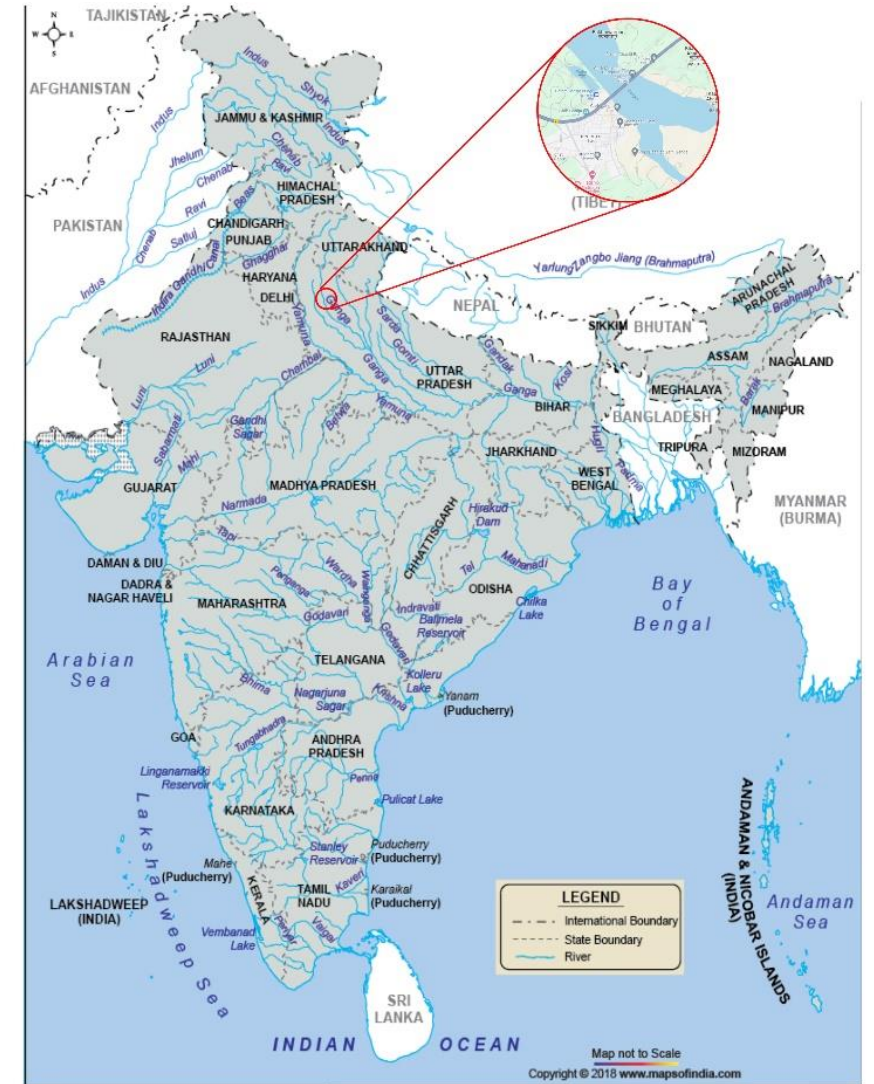
- Garh Mukteshwar is situated on the banks of the Ganges River near city area.
- Ideal location for riverfront development.

Geographical Information:

- Located in Uttar Pradesh on NH-24 connecting Delhi and Lucknow. 5kms from the Ganges River.
- Proximity to major cities: 44kms from Meerut, 73kms from Moradabad, 102kms from Delhi, and 165kms from Haridwar.

Historical and Cultural Significance:

- Rich history and cultural importance, Home to religious sites.
- Ample opportunities for riverfront development respecting local culture and rituals.



Map showing Garh Mukteshwar area(reference-Google maps)

STUDY AREA- GARH MUKTESHWAR, UTTAR PRADESH

Ganges River and Surrounding Cities:

- The Ganga River spans approximately 2525 kilometers.
- Numerous towns and cities along the banks, including Rishikesh, Haridwar, Garh Mukteshwar, and more. (*Ijsr1-2-4-007*)

Brijghat:

- Located on the bank of the Ganga near Garh Mukteshwar.
- Important cultural and pilgrimage center in the region and considerable religious importance with a bathing fair during Kartika.
- Average daily footfall of 3000-5000+ people, including locals and tourists.

Tourism Development Plan:

- Government planning to encourage tourists to visit Garh Mukteshwar.
- Transforming it into a spiritual and pilgrimage destination.

MULTI CRITERIA EVALUATION (MCE) APPROACH

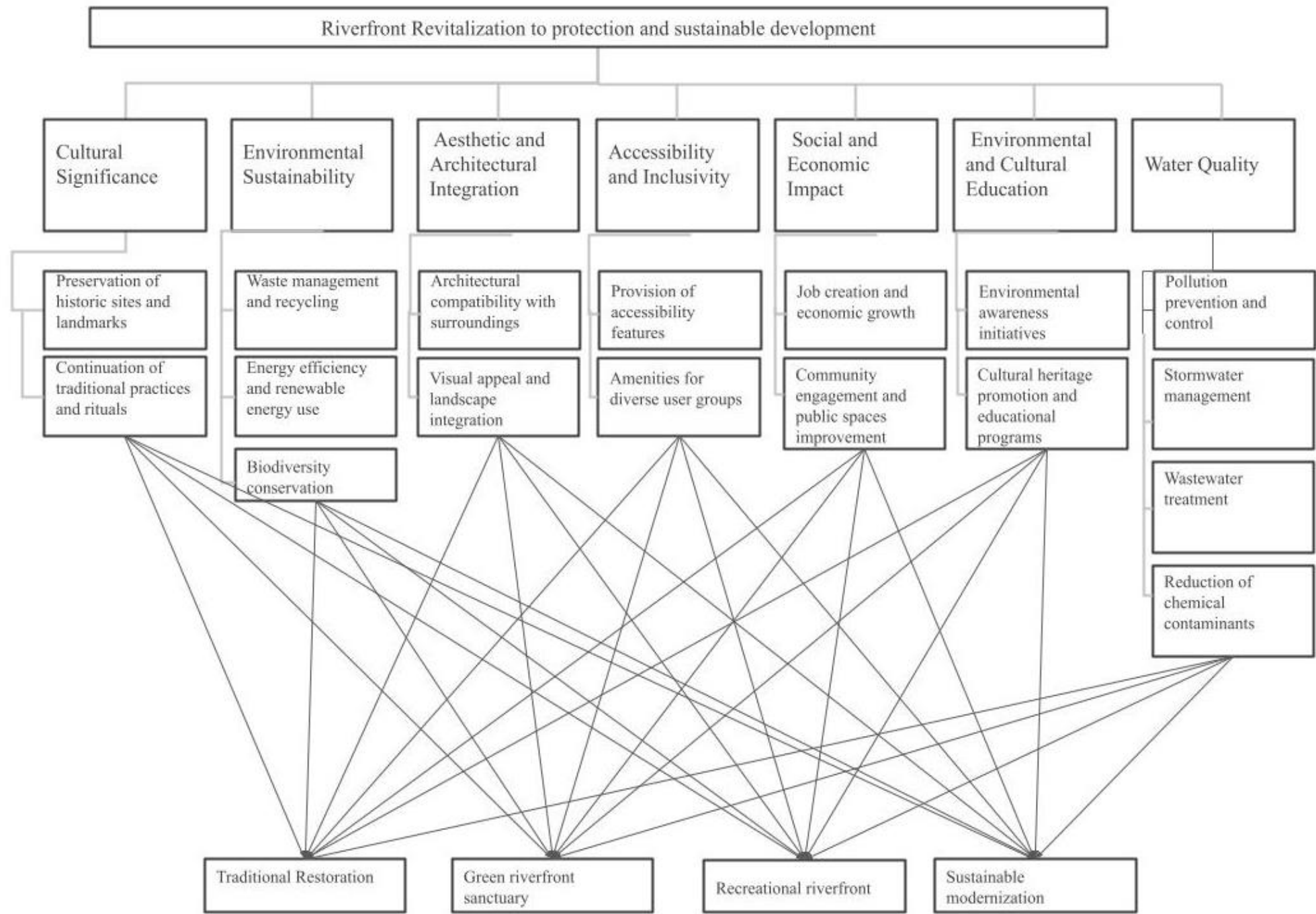
- The study suggests employing a multi-criteria method to create a decision support tool for riverfront revitalization.
- Utilizing this tool will enable policymakers and experts to evaluate and gauge restored riverfronts (Ragheb & Ragheb, 2021)
- The research involves a feasibility examination to rejuvenate the Garh Mukteshwar riverfront for tourism, through the application of the hierarchical structure within the Analytical Hierarchy Process (AHP).
- Decision criteria are hierarchically structured into sub-criteria, facilitating AHP's effective role in problem-solving and decision support. (Ragheb & Ragheb, 2021)

INDICATORS FOR MULTI CRITERIA EVALUATION

1. Cultural Significance
2. Environmental Sustainability
3. Aesthetic and Architectural Integration
4. Accessibility and Inclusivity
5. Social and Economic Impact.
6. Environmental and Cultural Education
7. Water Quality

These criteria collectively address the diverse dimensions necessary for the successful, sustainable, and culturally sensitive development of urban riverfronts

This framework, guided by the AHP framework encompasses all the indicators identified in Multi Criteria Evaluation, strategically shapes the conceptual plan for Garh Mukteshwar's riverfront redevelopment.



RESULTS AND DISCUSSIONS

- The 7 criterias identified from MCE evaluations, emerge as fundamental elements guiding the conceptual proposal for the transformation of Garh Mukteshwar's urban riverfront.
- The economic implications of revitalizing city centres, as exemplified in the case study, underscore the necessity to prioritize Social and Economic Impact in the proposed plan.
- This dimension, when intertwined with the profound cultural heritage of Garh Mukteshwar, offers a distinctive opportunity to augment the area's cultural significance and Aesthetic and Architectural Integration.

CONCLUSIONS

- The conceptual proposal plan for Garh Mukteshwar will articulate a transformative vision that considers the "before and after" conditions of the area.
- It will focus on the potential criteria identified through the literature review, case studies, and expert feedback.
- Visual representations and simulations can vividly showcase the envisaged transformation, ensuring a holistic and integrated approach to the revitalization of Garh Mukteshwar's urban riverfront.
- The derived approach can be made applicable for other areas also and this study can be further detailed out for future scope through expert's feedback by Multi Criteria Evaluation.