

EGU2020-8155

<https://doi.org/10.5194/egusphere-egu2020-8155>

EGU General Assembly 2020

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## Guiding Sustainable Development along Rivers in India

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Rivers have been a crucial part of human existence and the cradle of ancient civilizations. Historically, all cities developed along river banks. Rivers have played a seminal role in structuring cities the world over. India is recognized as a river nation and has had a long history of mystical affiliation with its rivers. Here rivers are considered sacred and venerated. All human activities and rituals are innately associated with the riverfront. Riverfronts have functioned as crucial socio-cultural religious spaces. In today's times however Rivers present a gory picture of neglect. Fresh water is polluted by domestic, industrial, agricultural and religious waste. Fortunately, people over the world have begun to realize the importance of rivers and concentrated efforts to ecologically rehabilitate and restore them are underway. In India, such efforts are mostly hinged on channelizing the riverbank and providing a space for recreation for city dwellers. Activists and water proponents, however, contest this approach and term it to be a mere initiative focussed towards river beautification rather than river rehabilitation. Such initiatives are not necessarily ecologically responsive and sustainable. India has been one of the leading participants of the United Nations and is dedicated to the UN's 2015 sustainable development goals (SDGs). Under SDG 6 and SDG 11, India strives to boost its water bodies, water quality and provide a comprehensive sustainable solution. India initiated the Smart City Projects (SCP's) in 2015, focussing on cities ' overall sustainable development'. Under this project, a total of 100 cities have been identified and more than 60 cities have a plan for riverfront development. These initiatives are targeted at reducing water pollution, providing aid to the riverbank and improving the connect between the city and its river. This paper aims at reviewing the recent Riverfront development proposals in India under the smart city mission and develop a set of indicators as a framework that allows future communities to reclaim their river and river edges in a sustainable manner. Research is conducted in two stages. Phase one is to establish a framework based on the principles of urban design and urban planning policies in India and assess the planned riverfront project. Phase two suggests a multi-criterion sustainability framework in the context of Indian rivers and validate its application using the community discussion process. Discussions involve Indian government officials' scholars from a variety of disciplines, engineers, designers, and the general public. This framework aims to direct developers, architects, PWDs, environmental authorities, towards sustainable restoration/rehabilitation strategies in the context of Indian rivers.

Keywords: Riverfront development, River Rehabilitation, River Restoration, Sustainability,

Channelization, Smart City Projects