



56th ISOCARP
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Post-Oil City
PLANNING FOR URBAN GREEN DEALS

2020 ISOCARP Student Award Special Mention

ECOLOGICAL URBAN COMMONS: AUGMENTING CLIMATIC AND SOCIAL
RESILIENCE, CASE OF SURAT, GUJARAT, INDIA

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CONTEXT OF THE PROJECT

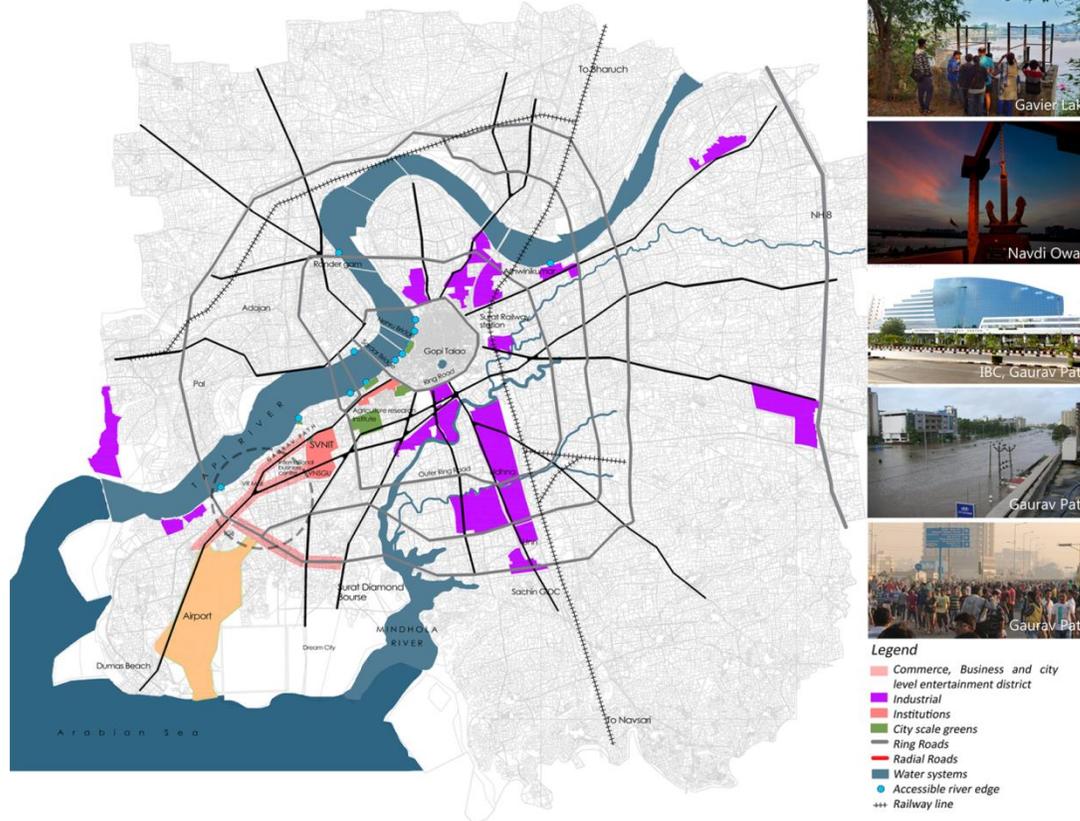


- Coastal cities all across are vulnerable to impacts of **extreme climate events; flooding, tidal surge, sea level rise and flash floods.**
- The coastal city of Surat is the **9th largest city in India and 4th fastest growing city globally.**
- **Flood risk exposure and vulnerability** of the city has increased over the past few decades. Flood in the year 2006 covered almost the entire city and affected nearly two-third of the Surat city population.
- Increasing **pressure on natural resources,** dwindling ecological balance.

CONTEXT OF THE PROJECT



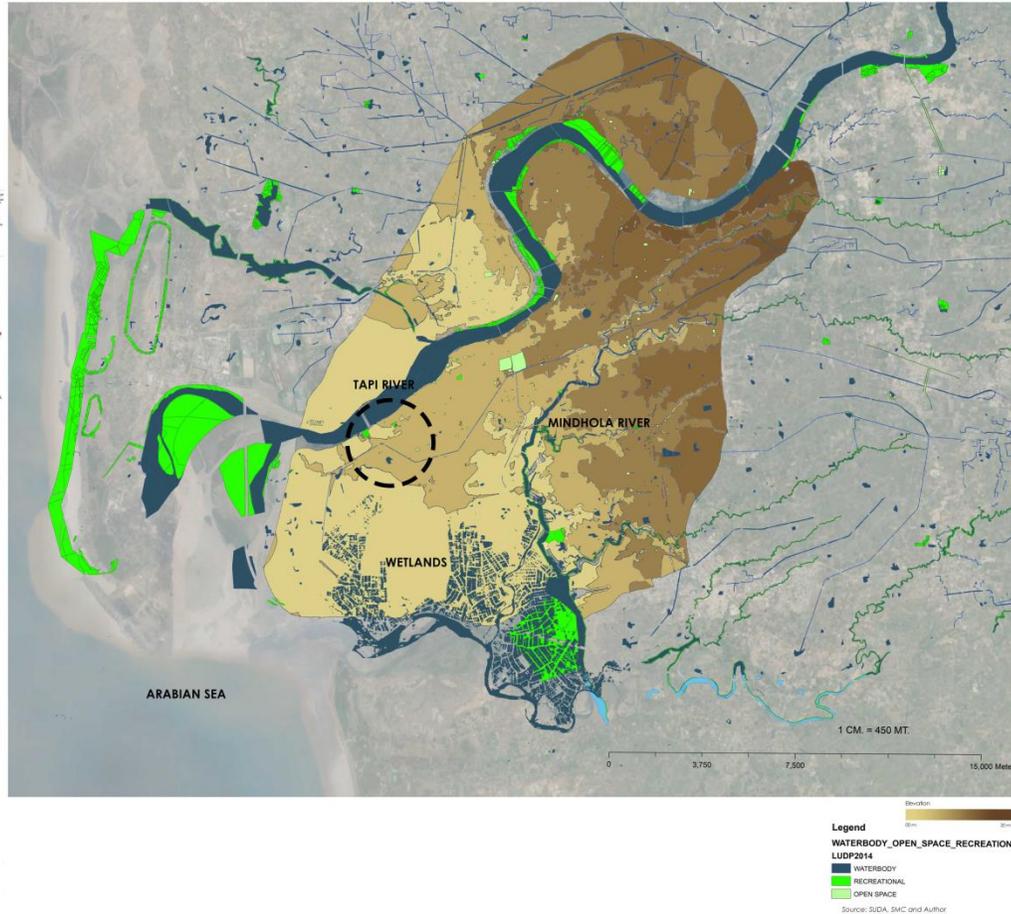
City Structure



- Legend
- Commerce, Business and city level entertainment district
 - Industrial
 - Institutions
 - City scale greens
 - Ring Roads
 - Radial Roads
 - Water systems
 - Accessible river edge
 - Railway line

- Since **the altitude of Surat is less than 13 m above mean sea level**, even with a sea level rise of one meter, the area under high tide zone particularly **western parts** of the city which are less than 10 m above mean sea level may be highly impacted.
- Measures have been taken time over to protect the city against flooding. For instance, in **1664, the construction of a wall around the city** had begun, with gates that could be closed when there was a risk of flooding. In present times **embankment walls have been created along the river edge** as a measure of flood control **disrupting the connection with the river**.

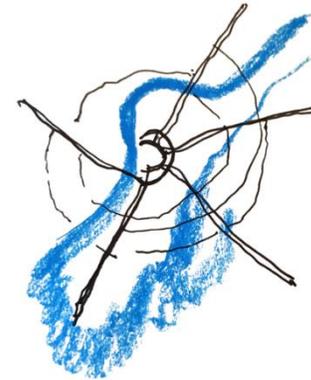
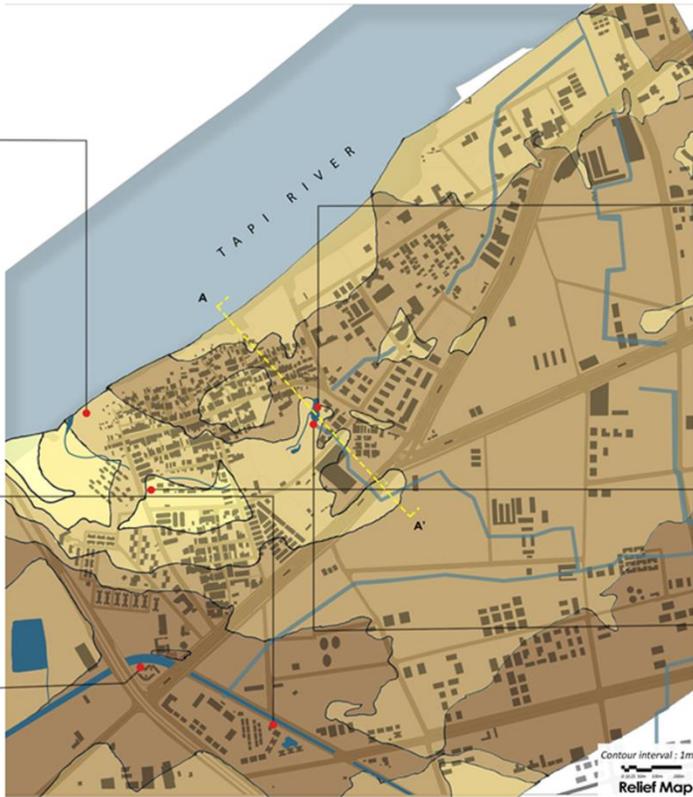
PROJECT FOCUS



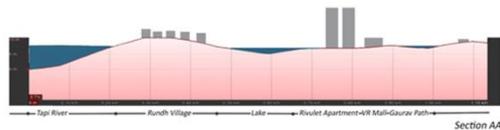
- The development in Coastal cities needs to **adapt to the ecological systems** in order to augment resilience in future.
- Strategies to **not just mitigate but to adapt. Reviving the historic precincts** and enhancing its connection with the river edge.
- There is **disruption of ecological systems; canals, wetlands and river** that were responsible for flood resilience.
- Redefining the ecological assets as vital public spaces, to inform the **natural history of the place**.

PROJECT FOCUS

Ecological systems

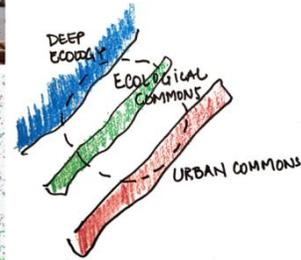
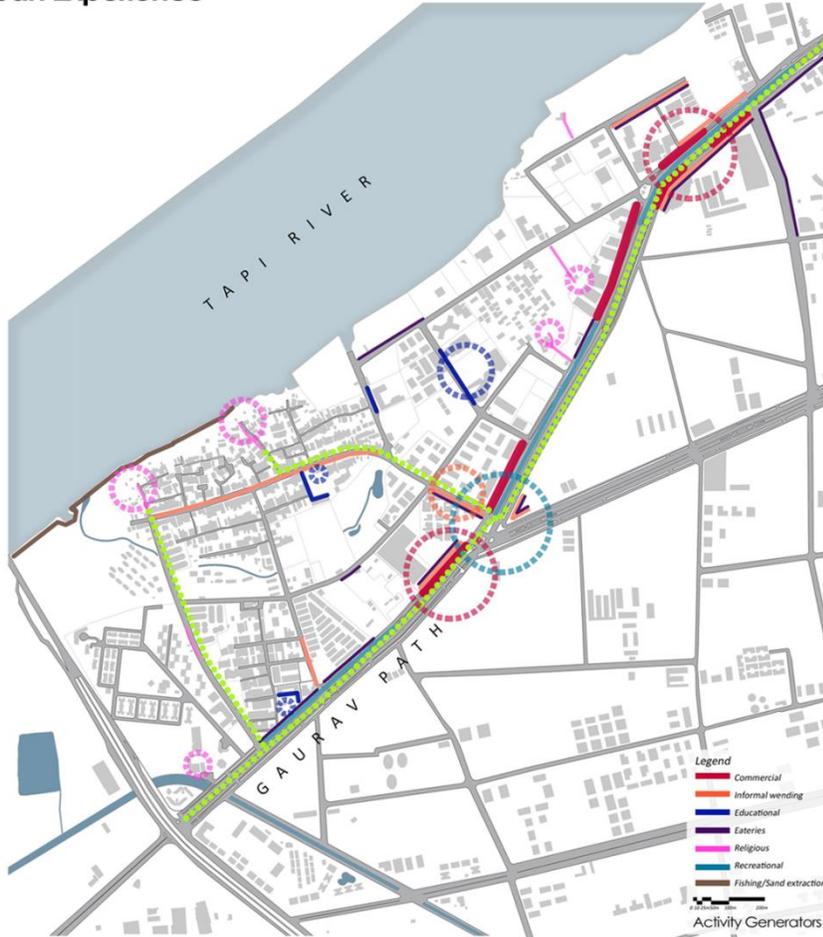


- The city is developing as a **geometrical overlay in conflict with the existing natural terrain** and major growth happening towards the southwest, low lying areas.
- The **floodable landscapes** have been **encroached** upon and concretized in the course of development.
- There is a need to sustain and augment existing natural systems and the development to happen in **synergy** with it.
- **Loss of biodiversity** and nature becoming oblivious to the city.



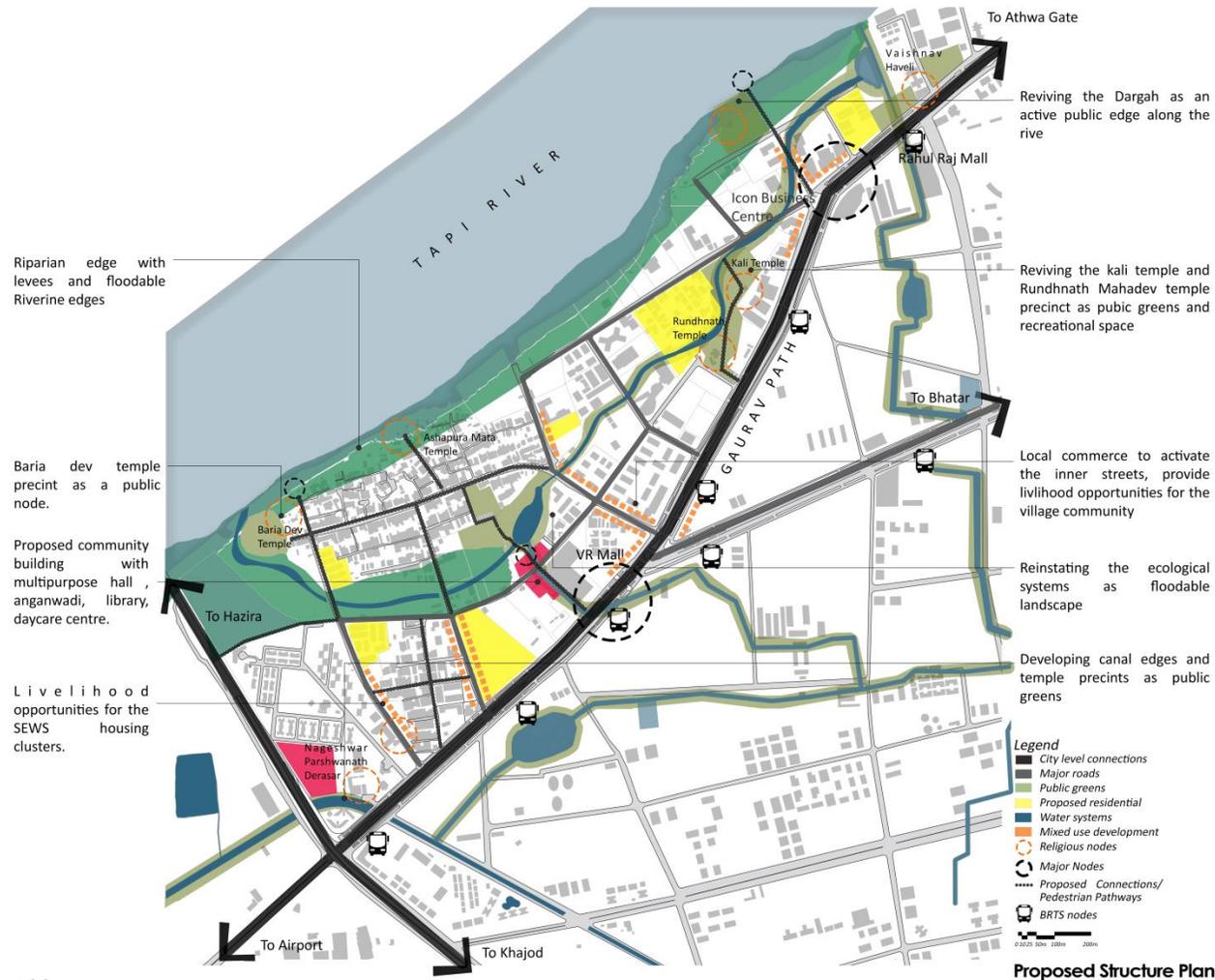
PROJECT FOCUS

Activity Patterns and Urban Experience



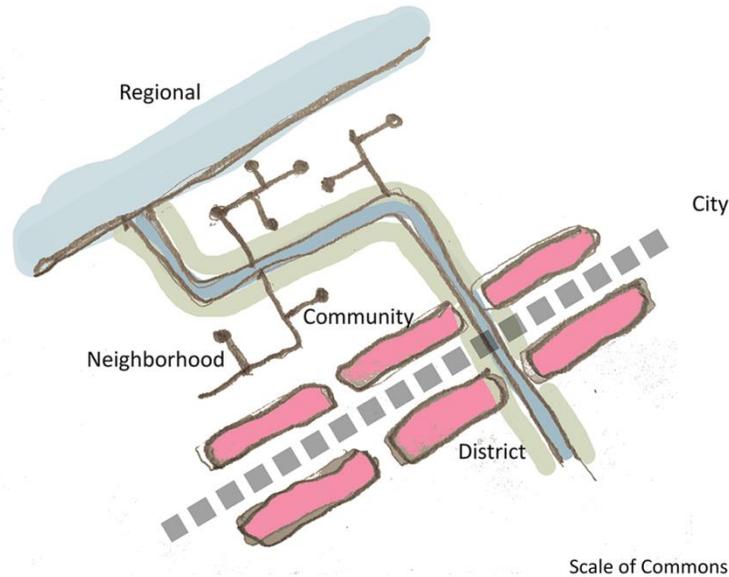
- While Gaurav path is developing as a global/city level corridor, an urban commons, the **ecological commons** have become neglected.
- The ecological systems have been **disrupted** and reduced to **isolated elements becoming boundaries of social divide**.
- Lack of public recreational open space and **river edge being privatized**. The river edges and lake edges are highly inactive and have become neglected.
- Communities have developed in a **fragmented manner**. The **migrant clusters** are living in an **inhospitable living conditions**.

PROJECT RESULTS



- Vision is reimagining the **urban ecological commons as vital public spaces** to augment **climate resilience and act as a social binder.**
- It will create **identity of river edge**, which is native to the delta city of Surat.
- Retain the **floodable riverine edges** and natural water systems
- To foster the **economic linkages of the marginalized communities** with the city, with the provision of livelihood opportunities.
- **Establishing connections with the river edge** and making it accessible and public as **ecologically sensitive precinct.**

BROADER PROJECT IMPACT



- **Water as an integral part of public spaces:** Reviving the Lake and Natural water streams, and developing its edges as public spaces.
- The new commons would act as **social binders** informing **localized closed loop systems**, **strengthening social equity**.
- This can potentially become a model of development which can be **contextualized** in other parts of the city with **community participation and local area based planning**.
- It would initiate dialogue within the society on **Sustainable Development Goals (SDGs): 10,11, 13, 14, 15 and 16**.

FUTURE DEVELOPMENT



LEGEND

1. Bariya Dev Temple	12. Market
2. Maidan	13. Forest
3. Aviary	14. Urban Haat
4. Arboretum, Botanical Garden	
5. Community Farming	
6. Cattle shed	
7. Lake	
8. Community Centre	
9. Multilevel Parking	
10. VR Mall	
11. Ashapura Mata Temple	

- This project would be developed further in close collaboration with the ward authorities, communities and the corporation.
- **Grassroots level participation and environmental stewardship** with the marginalized; elderly, children, women and migrants.
- The larger aim is to evolve a **2050 water plan** for the city of Surat making it resilient and prepared for the climatic vulnerabilities of the future.
- **Establishing sustainability as an interspecies and intergenerational equity of natural resources, towards EARTH SOVEREIGNTY as Gaia.**