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POLICY BRIEF

Protecting Karachi's Coastline: Balancing Recreation, Nature and Development in Karachi

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POLICY BRIEF:

PROTECTING KARACHI'S COASTLINE:
BALANCING RECREATION, NATURE AND DEVELOPMENT IN KARACHI

SUMMARY

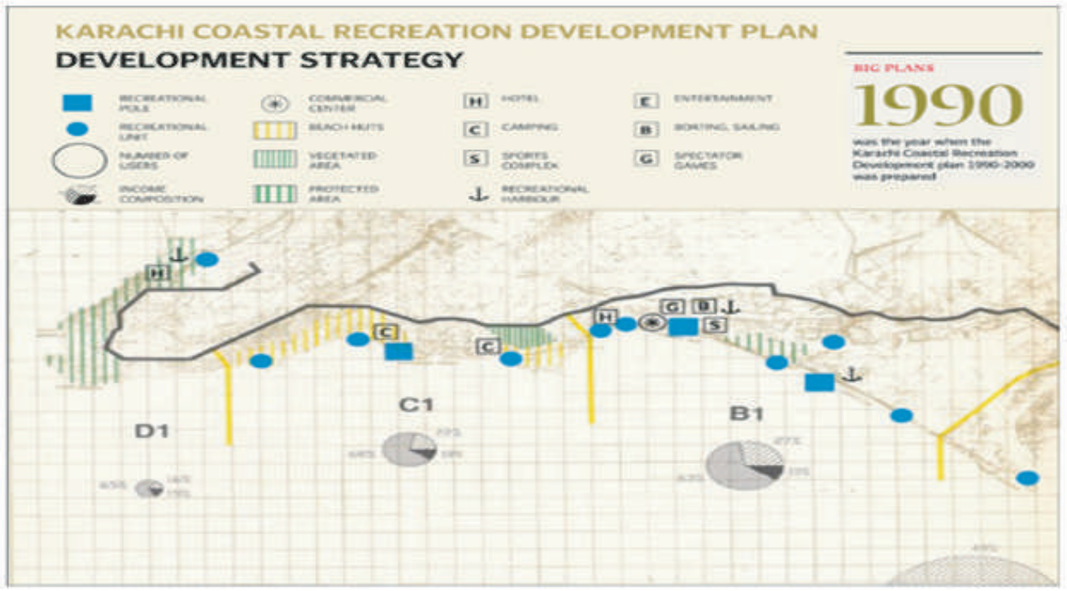
Karachi's 70 km coastline represents one of the most significant public recreational resources in Pakistan. However, policy gaps and weak governance have left many beaches either environmentally degraded or difficult for the public to access. Although several coastal development plans have been proposed. It includes the 1990 Karachi Coastal Recreational Development Plan and the 3.1 billion USD Karachi Coastal Comprehensive Development Zone (KCCDZ) under CPEC. The planning commission's concept paper on Integrated Coastal Zone Management (ICZM) acknowledges the neglect of recreational infrastructure along Karachi beaches. Moreover it stresses the coordination among government agencies to deal with environmental pollution, land use pressures and sustainable tourism. Policy execution has remained slow. At the same time, evidence from WWF-Pakistan point out that urban development and housing projects have increased the pace of mangrove loss along the Karachi's coast. Approximately 200 hectares disappeared from 2010 to 2022.As a result, the ecological support that sustains recreational beaches has been reduced. Since, 1991, coastal regulations restrict commercial land reclamation along the coastline without formal approval. In practice, many residential schemes and commercial projects have not complied with these rules. This is supported by an evaluation of Arif Hasan of the Karachi Coastal Management Plan. He identifies long standing weaknesses in land use management and environmental protection as the proposed improvements in recreational infrastructure largely remaining on paper. This brief evaluates current challenges in coastal recreation using the perspective of ICZM. Four priorities emerge. First, implement the Planning Commission's ICZM framework with a clear recreational mandate. Second, enforce the 1991 Coastal Zone Regulations to control illegal reclamation. Third, incorporate sewage treatment infrastructure into coastal development under KCCDZ to manage pollution from its source. Last but not the least, protect the remaining mangroves for their role in recreation and climate resilience.

1. BACKGROUND & CONTEXT

Karachi's coastline demonstrates a disconnect between natural potential and policy results. It has several recreational resources; urban beaches of Clifton, wide-ranging sands at Hawkesbay and French Beach, mangroves in the delta region, as well as places of historical significance (Manora and Keamari). But, these are only partially available and accessible to the public. Its roots lie in three intertwined policy failures: poor institutional coordination and an increasingly degraded physical environmental, alongside development activities with little regards to various forms of public use.

1.1 The Legacy of Unfulfilled Planning

In 1990, a major policy initiative to promote coastal recreation was adopted. A comprehensive outline was drafted by the Karachi Development Authority (KDA) in collaboration with United Nations Development Programme (UNDP). It divided the coastline into separate zones according to use. Such as built-up urban beaches, areas earmarked for future development, high use recreational zones, and environmentally sensitive areas or limited access areas. It also added environmental planning zones to protect coastal ecosystems. Its proposed major development sites included a beachfront complex at Clifton, tourist facilities at Gizri and China Creek, as well as an expansive sports complex at Hawkes Bay featuring plans for a lagoon designed for non-powered water activities.



Source: https://tribune.com.pk/story/926921/the-lost-dream-of-developing-karachis-coastline

The focus of the 1990 plan was on institutional arrangements. According to it, a dedicated Karachi Coastal Development Board and a planning unit should be established within KDA. The responsibility of this board was to keep coastal strategies up to date. Their recommendations remain largely unrealized even after more than 3 decades. Farhan Anwar, an urban planner, points out that many proposed initiatives were left on paper. This has led to random development and worsening environmental conditions. Recent policies, like the Planning commission's ICZM concept paper, still points out the same issues. In particular, the neglect of recreational spots and the lack of teamwork among government agencies.

1.2 The Sindh Coastal Development Authority (SCDA) Act, 1994 and Subsequent Amendments: Gaps between Mandate and Implementation

The objective of 1994 Act was to make the coastal governance less fragmented. As per Act, Authority is responsible to develop public spaces for recreation, create long term plan for coastal use, and get rid of illegal buildings. Changes in 2015 and 2018 sought to clarify the coastal zones definitions and the institutional mandate. However, there is clear mismatch between what was planned and what actually happened at the national level. Even though the 2002 Maritime Policy for an ICZM authority were brought up, they haven't led to matching laws in the provinces. Because of this, the problems in governance still remains.

1.3 Environmental Degradation

The 1990 plan aimed to protect the environment, but that's not what happened. The 2024 report from WWF Pakistan shows that new housing and business projects keep cutting down the mangroves along Karachi's coast. About 200 hectares were disappeared from 2010 to 2022. At the same time, untreated sewage discharge through the Lyari and Malir rivers making coastal pollution worse. This pollution affect public health, reduces the aesthetic appeal of coast, and make it less enjoyable for visitors.

Figure 1: : A Satellite View of the Lyari River: A Primary Conduct for Wastewater Discharge Into The Sea

WASTEWATER TREATMENT SHORTFALL

Indicator	Estimated Quantity (MGD*)
Total Wastewater Generated	472 – 550 MGD
Optimum Design Capacity of STPs	150 MGD
Actual Wastewater Treated	50 – 55 MGD
Untreated Sewage Discharge	**417 – 425 MGD**
***MGD stands for Million Gallons per Day**	

Source: DAWN. (August 23, 2020) Reclaiming Karachi's Edge

1.4 Governance Fragmentation and Weak Regulatory Enforcement

The 1991 Coastal Zone Regulations were supposed to curb commercial land reclamation through a prior approval process. However, weak compliance exists among housing and real estate projects. Multiple agencies share overlapping responsibilities including SCDA, Karachi Port Trust (KPT), Port Qasim, DHA, cantonment boards, and municipal bodies. And this dilutes accountability and creates room for regulatory loopholes. The 2015 amendment clarified the scope of coastal areas, but this has not translated into stronger enforcement.

2. POLICY GAPS

The analysis of coastal recreation conditions in Karachi necessitates consideration from three primary perspectives: the resilience of ecosystems, the coordination of governance, and equitable public access. These aspects correspond with the principles of Integrated Coastal Zone Management.

2.1 Ecosystem Resilience: Pressure on Coastal Resources

The ecological foundation that sustain coastal recreation is collapsing. WWF-Pakistan's satellite evidence indicates continued loss of mangrove forests due to urban expansion and land conversion. This has reduced natural protection, biodiversity, and recreation along the Karachi's coastline. While the KCCDZ sewage treatment investments is the first serious attempt to reduce pollution at origin, its success will depend on consistent, properly managed implementation over time.

2.2 Governance Coordination: Policy in Place, Implementation Gaps

A formal governance structure exists for coordinated coastal management through 1994 SCDA Act and amendments (2015 & 2018). While the 30 km inland boundary ought to settle competing territorial claims, implementation gaps persist. The master plan was not prepared. Section 23 authority has gone unused. Moreover, the 2020 effort to extend jurisdiction over the Karachi coastline remains unimplemented because of court ordered holds. The Sindh Environmental Protection Act 2014 adds pollution regulation but omits recreation focused mandates.

2.3 Fair Public Access: Balancing Growth and Inclusion

Coastal development projects offer potential economic gains. However, it may also restrict public access. For instance, DHA Phase 8 and Emaar Waterfront illustrate a development paradigm that privileges private, elite enclaves over communal recreation. The forced relocation of Gizri Creek's fishing communities and the erosion of protective buffer zones demonstrate how these projects have equated development with exclusion. Likewise, the cruise terminal, business bay, and high-tech park of the KCCDZ's project may create exclusive enclaves.

3. POLICY RECOMMENDATIONS

Restoring Karachi's coastline, a sustainable recreational and ecological resource, requires the following policy measures:

1. The Planning Commission's ICZM framework should be operationalized with an explicit focus on enhancing coastal recreation. The transition from sectoral management is necessary in resolving the jurisdictional conflicts between the KPT, KWSB, and local government. Because this framework offers an integrated system that supports environmental protection, recreational use, and development priorities with defined accountability for managing coastal resources.

2. The 1991 Coastal Zone Regulations must be enforced to limit unauthorized reclamation activities. The SCDA should utilize its legal mandate under the 1994 Act and subsequent amendments to act against illegal housing schemes and commercial projects, particularly those already under judicial review.

3. Sewage management should be integrated with coastal development under KCCDZ. The KCCDZ must complete the TP-1/TP-2, TP-3, and TP-4 infrastructure upgrades immediately. Furthermore, small-scale and cost-effective sewage treatment plants (Orangi Pilot Project model) needs to be introduced. These are 80 percent cheaper than large-scale plants. In addition, industrial units should be required to established pre-treatment plants for toxic waste.

4. It is necessary to conserve the remaining mangroves. With so much mangrove cover lost recently, clearing for development should be strictly controlled. And it needs to be backed up by criminal penalties for violations, which then can be applied via section 23.

4. CONCLUSION

In essence, Karachi's coastline is at a critical crossroad. The current trend of unregulated land reclamation on top of the release 417 – 425 MGD untreated waste is damaging coastal ecology while limiting equitable access to Karachi's coastal resources. Such pressures undermine both environmental resilience and social inclusion. What we need is a move to coordinated, evidence-based governance, and preventive strategies

KEYWORDS

TP-1/TP-2, TP-3, and TP-4 refers to sewage treatment plants. TP-1 and TP-3 plants are located on the Lyari river. Whereas, TP-2 and TP-4 are located on the Malir river.