KARACHI CIRCU LAR RAILWAY (KCR) - POLICY GUIDELINES FOR SUSTAINABLE URBAN TRANSPORT

BY

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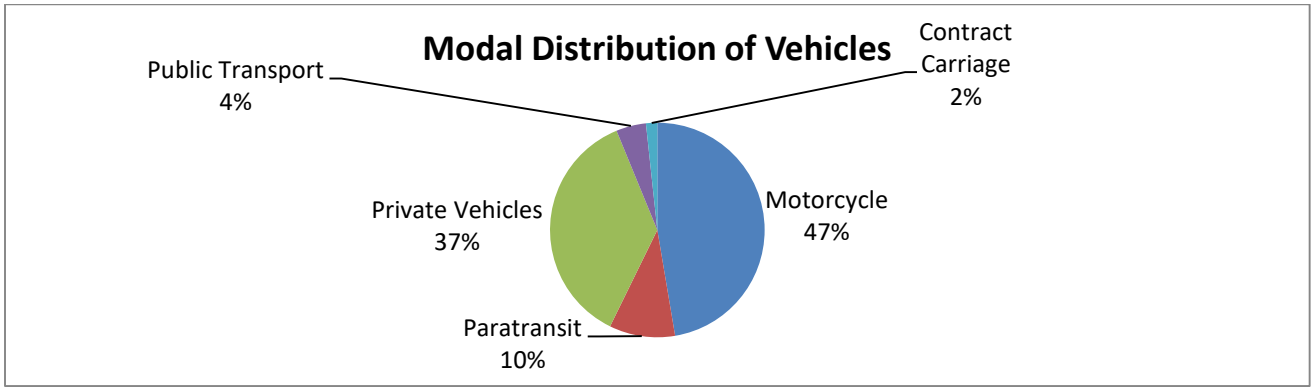
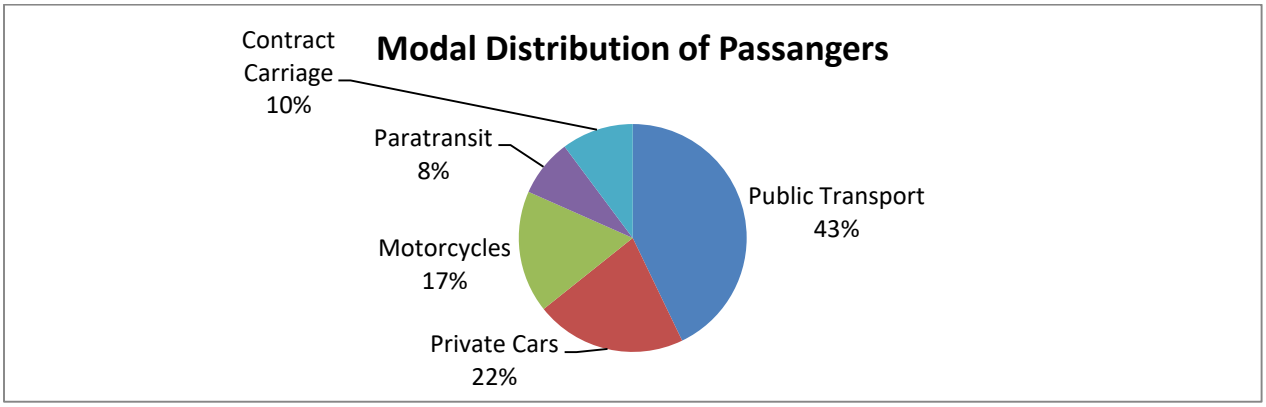
BACKGROUND

Transport-related problems in Karachi have significantly increased in recent decades. Traffic congestion contributes to increased air and noise pollution, health problems, high accident rates, and environmental degradation. It has also meant declining living standards, as to avoid long commutes, people's livelihood choices have become more limited and this has determined where they live. Long commuting times, congestion, over-loaded and poorly maintained vehicles are the common problems for the residents of Karachi. The share of public transport in vehicular mode distribution is 4%, however they carry 43% of the total passengers in Karachi. Private cars are 37% of the total vehicular traffic, and carry 22% of the passengers. (Hasaan and Raza, 2015),





Source: Hasan A, Raza M; (2015); Responding to the Transport Crisis in Karachi; IIED-UK Working Paper

Around the world urban transport is a priority and mass transit projects are launched with an aim of facilitation of commuters. Karachi Circular Railway is the most cited transport project for Karachi. Historically, KCR was operational as an inter-regional public transit system in Karachi in 1960's and 1970's. However, it was later abandoned due to the poor infrastructure and inability to provide mobility to the residents of Karachi. The proposed revival of KCR will make it operational from Karachi City Station on I.I. Chundrigar Road and the network will be extended to Gadap in the north, Dhabeji in the east, Kiamari in south, and Hub in the west of Karachi. Karachi, despite being a major metropolitan city of Pakistan, faces severe mobility issues, as no public transit is available. Commuters have to rely on local modes of transport. This results in longer and expensive commutes, resulting in lower public utility.

Under the CPEC, the revival of KCR as a mass transit project is a primary focus of the federal and provincial government of Sindh. The 6th Joint Corporation Committee (JCC) meeting has agreed in principle for inclusion of Karachi Circular Railway as a rail based mass transit system in CPEC portfolio. The Joint Working Group (JWG) on Transport Infrastructure has been asked to complete the necessary formalities in this regard. Currently the project has been recommended by the Central Development Working Party (CDWP) for consideration of ECNEC, subject to the rationalization of scope and cost of the project. The preparation of feasibility of the project is the responsibility of NESPAK, after which it would be awarded to the selected company for start of work.

The project has an estimated cost of $ 1.9 billion. The financing of the project was previously with Japan International Cooperation Agency (JICA) who had proposed 10 years for its completion; however as one of the CPEC projects, KCR is targeted to be completed in 3 years, i.e. by 2020. KCR would be a 43.2 kilometers standard gauge double railway track (14.94 km at surface and 28.18 km elevated) and would be constructed with allied structures on the existing land reserved for KCR.

KCR is expected to improve the mobility situation of the largest metropolitan city of Pakistan and would provide ridership to 550,000 commuters by 2020. The projected demand would increase to 749,541 by the year 2030 passengers per day and 915,876 by 2050. The completion of other BRT corridors will contribute as following.

Sr.No	Line	Financing	Length(km)	Cost (Billion Rs)	Ridership Daily
1.	Yellow	Public Private partnership	26	12-14	150,000
2.	Orange	Bidding in process	4.7	2.364	50,000
3.	Green	Govt of Pak funding	21	27	400,000
4.	Red	Govt of Sindh	21.5	12-15	350,000
5.	Blue	Private Developer	41.7	187	450,000

Source: Hasan A, Raza M; (2015); Responding to the Transport Crisis in Karachi; IIED-UK Working Paper

THE WAY FORWARD / POLICY GUIDELINES FOR SUSTAINABILITY OF KCR

The sustainability of mass transit projects such as Karachi Circular Railway (KCR) needs strategic thinking, careful planning, and sound policy guidelines. Some of the policy guidelines for the sustainability of KCR are as follows.

- The biggest issue that the successful implementation of KCR faces is of land encroachments. Almost 70-80% of land under KCR boundary is encroached by illegal settlements. The resettlement of these urban dwellers, fixation of land compensation rates, prevention of slum settlements and development of smart integrated city around KCR track are important research areas to be addressed so that the project could be completed as per the timelines.
- The current KCR tracks are standardized under Pakistan Railways; however they have become obsolete and are at a mismatch with Chinese standards of engineering and transport. The standardization of scale is also an important avenue for exploration.
- Land-use pattern along the KCR needs to be examined with possible policy recommendations in order to build the ridership for this CPEC-supported mega project in Karachi. Building ridership in mass-transit projects can be difficult when trip distances are short and parking is inexpensive like the case of Karachi. In addition, land use patterns are not transit-supportive in the case of Karachi. Hence, policy research is needed in this important area to make the KCR sustainable.
- Triple bottom approach with reference to the KCR also needs to be considered. Instead of the conventional focus on economic bottom lines, Sindh Mass Transit Authority and other related stakeholders in Karachi should be encouraged to consider a ‘triple bottom line’ which gives equal weight to economic, social and environmental outcomes. The

provision of mass-transit facilities, as a local level/municipal responsibility having numerous positive impacts on social and environmental systems in addition to economic benefits, is particularly important for triple bottom line analysis. General masses and stakeholders in Karachi should view this CPEC-supported KCR project as a significant benefit to individuals, families, neighborhoods, businesses and the ecosystem surrounding the Karachi city. By doing so, the positive narrative of CPEC would be highlighted in the community/relevant stakeholders in Karachi.

- Policy-research on TDM (travel demand management) with reference to KCR should be initiated. Traffic management authorities in Karachi may use some appropriate measures, backed by the research/policy recommendations, that should manage the demand for transportation, rather than simply focusing on the supply, in order to make the KCR sustainable. Transportation demand management (TDM) is the application of strategies and policies to reduce travel demand of single-occupancy private vehicles. TDM measures influence whether, why, when, where and how people travel in a certain urban area. TDM initiatives can include educational and promotional tools, incentives and disincentives. They include measures like information campaigns, special events, discounted transit fares, feeder routes planning (non-infrastructure related options), active and safe routes to school for children, workplace-based commuting options programs, and household-based individualized marketing. TDM measures often involve partnerships between city-municipalities and employers, schools and community organizations. They are typically less costly, but can improve the cost-effectiveness of KCR by increasing its level of use.
- Non-fare revenue generation – research needs to be initiated for developing a non-fare revenue (NFR) policy for KCR which will enable the Sindh Mass Authority/concerned department to implement the non-fare revenue generating ideas and proposals, and would make the KCR sustainable. Sindh Mass Transit Authority lacks the specialized expertise and resources needed to design some comprehensive NFR policy/marketing strategies. Hence, policy research in this important area needs to be initiated on urgent basis.
- Training need assessment and conduction of trainings on issues like standardization of scales, mass transit safety, revenue generation sources are also highly required.

- Startup of engineering and transport related degree programs that are specifically required under CPEC should be mapped out by the HEC and relevant academic bodies. These programs should then be launched at the top ranking universities in Karachi/ Sindh province. This step is imperative for creating the skill development pool that would be required in future for operation and maintenance of CPEC projects. This will also increase employment and job creation at the national level.

The above mentioned guidelines and potential research areas could also be considered for rest of the three mass transit projects under CPEC;

- Greater Peshawar Region Mass Transit
- Quetta Mass Transit
- Orange Line - Lahore

These research avenues, training needs, and policy guidelines are important to be implemented to make the mass transit projects under CPEC viable and sustainable.