

# Khulna, Bangladesh

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## Project Background

Khulna is the third largest city in Bangladesh with an estimated population of 1.3 million in 2015. For many years, the local economy was dependent on the jute industry. With the decline of the jute industry in the 1990s, the city's economy was boosted by the development of the shrimp industry and the establishment of two major universities. The city is characterized by a high incidence of poverty estimated at around 40%, significantly higher than the national urban average of 28%. Around 20% of the population live in slum areas with 50% of the houses built out of non-permanent materials (i.e., katcha).

<b>PFS period</b>	January 2009 – July 2009
<b>Focus sectors</b>	Urban transport; drainage; solid waste
<b>CDIA - supported activities</b>	- Formulation of MTPUIP - Sector studies of prioritized sectors: transport, drainage and solid waste management - Follow-up project preparation work on pro-poor urban transport
<b>L2F Status</b>	Funded by ADB and KfW

In October 2008, the CDIA approved the application of Khulna City Corporation (KCC) for technical assistance in the formulation of a Medium-term Prioritized Urban Infrastructure Program (MTPUIP) and preparation of Sector Studies covering three sectors, transport, drainage and solid waste management. Technical assistance activities including an intensive process of stakeholder consultations were carried out from January to July 2009 by a team of international and local consultants directly hired by CDIA through ADB in close cooperation with a team of engineers and other officials from KCC.

After completion of the MTPUIP in 2009, ADB provided a project preparatory technical assistance (PPTA) which led to the approval of the City Region Development Project (CRDP) sector loan in November 2010. Approval of CRDP sector loan generated interest of KfW in co-financing the urban transport projects of CRDP in KCC. In preparation for the KfW co-financing, CDIA carried out a further preparatory study on the “Pro-poor and Green Urban Transport in Khulna” in 2011 taking into account the findings from the 2009 MTPUIP Transport Sector Study.

## Pro-poor and Green Urban Transport Project: Progress as of 2016

After the CDIA preparatory study was completed in 2011, all the proposed transport project components were included in the ADB Sector Loan “City Region Development Project” (CRDP) and funded by a grant from German Government through KfW amounting to EUR 10.5 million and financial contribution from the Government of Bangladesh of EUR 3.1 million. Based on the loan agreement between ADB and GoB, the Local Government and Engineering Department (LGED) was made responsible for the overall execution of the CDRP including the road and transport-related project components in Khulna City in close coordination with KCC and other government bodies such as the Khulna Development Authority (KDA).



Fig. 8: Completed pro-poor access road with open roadside drainage.

Following the completion of detailed engineering and feasibility studies in 2012, implementation of KfW-funded road and transport improvement project components commenced in 2013. The project was implemented in 10 contract packages. Based on the October 2016 Monthly Progress Status Report of the KCC Project Implementation Unit (PIU), implementation of 3 out of the 10 packages have been fully completed while progress of work in 5 contract packages ranged from 80 to 96%.

Overall, the KfW-financed urban transport project in Khulna was implemented as planned except for minor deviations from the original design of the Improvement of Link Road 7. As a compromise with owners of business establishments along the link road, NMT lane separators/dividers are to be constructed on a selective basis to allow easy access of customers to the business establishments.

According to key officials of KCC and LGED, the key factors that contributed to the smooth project implementation were: i) good project preparation by CDIA; ii) absence of land acquisition and relocation of residents; and iii) full support and cooperation by local councilors and Community Development Committees (CDCs) during the entire project implementation.

### Intervention Results

**Promoting mobility and accessibility for the urban poor.** The improvement of access roads in the slum areas has enhanced the mobility of the urban poor by strengthening and extending their access routes for both pedestrian and non-motorized transport to urban slums. Prior to the project, some of these areas were inundated during the monsoon season that last for six months. With the construction of 10 kilometers of access roads in eight poor areas (wards), at least 200,000 poor people are currently benefited by enhanced accessibility to main roads, improved mobility, reduced travel time arising from increased vehicle operating speeds and improved living conditions due to reduced flooding as a result of provision of road side drainage.



Fig. 9: Completed road segment with footpaths, street bench, and roadside drains.

**Climate-proofing of transport infrastructure.** The project succeeded in showcasing climate adaptation measures that are worth emulating by other cities that are prone to negative impacts of climate change. These measures include increasing the height of existing embankment roads, strengthening riverbank protection, provision of roadside drainage and extensive urban greening. Apart from enhancing movement of motorized and non-motorized vehicles, these measures have strengthened flood defenses especially in areas where embankments were rehabilitated and drainage channels were improved.



Fig. 10: Completed segment of Jessore Road-Bara Bazar-Joragate Area road improvement

In the Jessore Road-Bara Bazar-Joragate Area where riverbank protection and roadside drainage formed part of the overall road improvement measure, the residents claimed that they no longer experienced flooding after the road was constructed. Aside from avoiding floods, some 20,000 poor residents are now

benefited by improved access to education, health and other basic services. KCC officials also expect that “climate proofing” measures will significantly reduce road maintenance costs and allow the city to spend these savings on other services needed by their constituents such as health and education.

**Promoting road safety.** When fully completed, the urban transport project is expected to promote safety among pedestrians and non-motorized transport (NMT) operators. The provision of NMT lanes will not only ease the movement of NMT but also significantly reduce the risks of road accidents involving NMT and motorized vehicles. The provision of footpaths will provide ample space especially for the urban poor most of whom resort to walking as they cannot afford even the cost of NMT rides (see Box 3).

### **Conclusion and Lesson Learned**

Overall, the findings of this tracer study indicate that the pro-poor and green urban transport project whose preparation was supported by CDIA back in 2011 succeeded in responding to the transport and mobility needs of Khulna City. Key to the smooth project implementation was good project preparation work done by CDIA which prioritized transport investments that build on existing transport sector plans including promotion of energy efficient, low polluting sustainable transport development.



Fig. 11: Completed segment of Outer Bypass Road with elevated footpaths and NMT

Apart from its strong pro-poor orientation, the project is a good showcase of climate adaptation measures by “climate-proofing” of road infrastructure, strengthening of flood defences (e.g., increasing the height of road embankments) and provision of adequate drainage as part of road infrastructure improvement.

In order to enhance the prospects of achieving the anticipated development impacts, this tracer study recommends that the KCC should address the following issues: i) need to allocate adequate resources for routine and periodic road maintenance including cleaning of roadside drains that were constructed as part of the road infrastructure; ii) need to encourage community residents to become actively involved in minor periodic maintenance of access roads; and iii) need to further build the capacity of KCC not only in road maintenance but also in traffic management.