

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The proposed project preparatory technical assistance (PPTA) to the Karnataka Public Works Department (KPWD) is required to:

- (i) Assess Core Road Network plan and scope of the Project;
- (ii) Assess and strengthen detailed project reports (DPRs) prepared by Karnataka Road Development Corporation (KSHIP) for financing by Asian Development Bank (ADB), including safeguards due diligence, with better project readiness. Project readiness will ensure that project preparation is ready for implementation with feasibility reports, safeguards planning documents, DPRs, and bidding documents prepared for sample roads;
- (iii) Identify capacity development needs of KPWD and KSHIP in developing and managing state roads in a sustainable manner. Sustainability of road development and management includes planning capacity, procurement and contract management, road asset management, streamlined business process, road safety, environmental consideration, and so on; and
- (iv) Assist KSHIP in undertaking advance contracting actions, including public-private partnership (PPP) elements.

B. Major Outputs and Activities

2. The major outputs and activities are summarized in Table A4.1.

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Consultant mobilization	Dec-2014	Inception Report	Jan-2015
Assessment of Core Road Network Development Plan	Feb-2015	Economic & Sector Assessment Report	Mar-2015
Assess DPRs	Mar-2015		
Prepare documents for project readiness	Apr-2015	Detailed Project Reports reviewed	May-2015
		Initial Environmental Examination/ Environmental Impact Assessment	May-2015
		Resettlement Plan, Indigenous Peoples Plan, and Social Assessments	May-2015
Institutional assessment for KPWD, KSHIP	May-2015	Institutional and Capacity Assessment Report	May-2015
Support for advance contracting	May-2014	Procurement Documents	Jun-2015

Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

3. The TA is estimated to cost \$600,000 equivalent, which will be financed on a grant basis by the ADB's Technical Assistance Special Fund (TASF-other sources). The government will provide support in the form of counterpart staff, office accommodation, office supplies, communication facilities for PPTA consultants, and other in-kind contributions, valued at approximately \$30,000. The detailed cost estimate is presented in Table A4.2.

Table A4.2: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (7 person-months)	182.0
ii. National consultants (30 person-months)	210.0
b. Local travel	30.0
c. Reports and communications	8.0
2. Surveys	125.0
3. Contingencies	45.0
Total	600.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

Source: Asian Development Bank estimates.

D. Consulting Services

4. A firm (or consortium of firms) will be engaged to undertake this PPTA. As estimated, this assignment will require 1 international and 7 national experts for a total of 37 person-months. The consulting firm will be engaged following the quality- and cost-based selection method, with a quality-cost ratio of 90:10 using bio-data technical proposal procedures. Procurement of all consultancy services used under the PPTA will be carried out in accordance with ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time).

Table A4.3: Summary of Consulting Services Requirement

Positions	Person-Months Required
International	
Team Leader/ Highway Engineer	7
National	
Transport Economist	3
Procurement Expert	4
Institutional Finance Expert	3
Road Safety Expert	2
Environmental Safeguards Expert	6
Resettlement Expert	6
Social & Gender Expert	6
Total National Key Experts	30

Source: Asian Development Bank estimate.

5. The outline terms of reference for the PPTA consultants are described in paras. 6 to 13.

E. Outline Terms of Reference for Key International Expert

6. **Team Leader/ Highway Engineer.** The Team Leader will be a Civil Engineer with Master's degree in Highway or Transportation Engineering, and at least 20 years of experience in the highways sector. The Team Leader will provide technical and managerial inputs, as well as overall guidance to the PPTA. The team Leader will focus primarily on the development plan for the Core Road Network, the institutional arrangement for road asset creation and maintenance, and on reviewing the DPRs prepared by KSHIP to ensure cost effectiveness, safety, and appropriateness of the design in light of best practices. The Team Leader will propose measures to improve climate resilience and road safety. The Team Leader will coordinate with KSHIP as well as DPR consultants appointed by KSHIP.

F. Outline Qualification and Terms of Reference for Key National Experts

7. **Transport Economist.** The Transport Economist will be a Civil Engineer or Economist, with post-graduate qualifications in transportation or transportation economics, and at least 15 years' experience in the sector. The economist will undertake economic and financial viability analysis of the proposed sample roads under the Project. Assessment will be in line with ADB publication "Key Areas of Economic Analysis of Investment Projects" (2013). The Transport Economist will develop selection criteria for the roads that will be included in the project.

8. **Procurement Expert.** The Procurement Expert will be a graduate in civil engineering, with at least 12 years' experience in procurement for infrastructure projects, preferably including PPP contracts. The expert is required to be familiar with ADB's procurement guidelines. The expert will be responsible for assessing KSHIP's capacity in carrying out procurement as per ADB's procurement guidelines, incorporating elements of PPP as required. The expert will assist KSHIP in advance procurement, including for preparation of procurement plan, procurement packaging, procurement documents, technical schedules, etc., to attain a high level of readiness to bid. If required, the expert should also review the e-procurement system being followed in the state.

9. **Institutional Finance Expert.** The Institutional Financial Expert will be a Chartered Accountant or holding a Master's degree in Business Administration with finance and accounting, with at least 12 years' experience in financial management, audit, and accounts for public sector institutions. The expert will undertake a governance (financial management, institutional) appraisal of the KSHIP and a fiscal assessment of the state of Karnataka, from available data. Based on the assessment, the expert will recommend measures to strengthen specific areas.

10. **Road Safety Expert.** The Road Safety Expert will be a Civil Engineer with Master's degree in Highway or Transportation Engineering, and at least 15 years of experience in the highways sector, dealing with aspects of design and road safety. The Road Safety Expert will focus primarily on the safety aspects in the design and implementation plans for the Project roads, and appropriateness of the design in light of best practices.

11. **Environmental Safeguards Expert.** The Environmental Safeguards Expert will be a graduate in environmental engineering/ science/ management or related fields. The expert will have at least 8 years' experience of having undertaken environmental assessment for infrastructure projects comprising roads and transportation projects, and conversant with ADB's requirements under Safeguards Policy Statement (2009). The expert will assess the

environmental impacts of the project and based on the significance of the impacts prepare an IEE or EIA report, including Environmental Management Plan.

12. **Resettlement Expert.** The Resettlement Expert will be a graduate in sociology, or other related fields. The expert will have at least 8 years' experience in dealing with rehabilitation and resettlement matters, working with social groups and communities, and livelihood aspects. The expert will have familiarity with ADB's requirements under Safeguards Policy Statement (2009), for road and highway projects. The expert will assess the identified roads and prepare resettlement plan(s) as required with 100% census of project affected people. The expert will prepare necessary Indigenous Peoples planning document.

13. **Social & Gender Expert.** The Social & Gender Expert will be a graduate in sociology, or other related fields. The expert will have at least 8 years' experience in working with gender, HIV/AIDS, trafficking, affordability, and labor issues. The expert will have familiarity with ADB's Poverty and Social Analysis Handbook and is experienced in road and highway projects. The expert will be responsible for conducting at 20% survey of project impact area. The expert will identify and include gender-inclusive design features that would maximize gender benefits for the project, such as employment or livelihood opportunities, ways to enhance women's mobility and access to social services and economic opportunities beyond road connection (e.g., affordable public transport services, women's safety and security).

G. Implementation Arrangements

14. KPWD will be the PPTA executing agency, and it will act through KSHIP. KSHIP will provide in-kind contributions in the form of counterpart staff, office accommodation, office supplies, and communication facilities for consultants. PPTA consultants will be mobilized in a staggered manner to act in concert with activities being undertaken under the DPRs being prepared by KSHIP to facilitate advance actions to achieve project readiness.

15. The proposed TA processing and implementation schedule is listed in Table A4.4.

Table A4.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Concept Paper clearance	Jul-2014
Consultant mobilization	Dec-2014
Project documentation completed	Jun-2015
Project readiness for contracting	Jun-2015
Completion of Project Preparatory Technical Assistance	Sep-2015

Source: Asian Development Bank.

16. Disbursements under the TA will be done in accordance with the ADB's Technical Assistance Handbook (May 2010, as amended).

17. The objective of the PPTA is to build on the DPRs prepared by KSHIP, and to make the necessary checks and changes to make them suitable for meeting ADB's requirements. Further details on the distribution of work as between the DPRs and the PPTA are given in Supplementary Appendix C.