

# PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC14254

<b>Project Name</b>	Transport Connectivity and Asset Management Project (P132833)
<b>Region</b>	SOUTH ASIA
<b>Country</b>	Sri Lanka
<b>Sector(s)</b>	Rural and Inter-Urban Roads and Highways (90%), General transportation sector (10%)
<b>Theme(s)</b>	Other rural development (50%), Other urban development (50%)
<b>Lending Instrument</b>	Specific Investment Loan
<b>Project ID</b>	P132833
<b>Borrower(s)</b>	Democratic Socialist Republic of Sri Lanka
<b>Implementing Agency</b>	Roads Development Authority
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared/ Updated</b>	28-Oct-2014
<b>Date PID Approved/ Disclosed</b>	30-Jul-2015
<b>Estimated Date of Appraisal Completion</b>	27-Jan-2016
<b>Estimated Date of Board Approval</b>	28-Mar-2016
<b>Concept Review Decision</b>	Track II - The review did authorize the preparation to continue

## I. Introduction and Context

### Country Context

Sri Lanka is a lower-middle-income country with a per capita Gross Domestic Product (GDP) of USD 3,280 in 2013 and a population of 20.5 million. It is shifting from a predominantly rural-based economy to an urban economy oriented around manufacturing and services. Currently, services account for 57 percent of the economy, followed by manufacturing at 33 percent and agriculture at 11 percent. The average growth stood at 7.5 percent for the period 2010-2013 reflecting a peace dividend and an aggressive policy thrust towards growth since the country's internal civil conflict ended in 2009. The Government envisions reaching a per capita GDP of USD 7,000 by 2020.

Sri Lanka has made significant progress in the socio-economic development. Continued high growth has been translated into shared prosperity with national poverty headcount ratio coming down from 15.2 percent in 2006/07 to 6.7 percent in 2012/13. The country has comfortably surpassed most of the MDG targets set for 2015 and is ranked 73rd in Human Development Index

indicators in 2014.

The Government is committed to bring down public debt and fiscal deficit. The fiscal deficit was brought down from 9.9 to 5.9 percent of GDP during 2009 to 2013. The public debt, which was hovering around over 106 percent of GDP in 2002, was reduced to 78 percent by 2013, supported by strong growth in a backdrop of stable currency and low interest rates. However, the level of public debt is still high, which is reflected by the high level of interest expenditure in the budget, comparably in size to capital investment at 5 percent of GDP.

The GOSL has invested heavily on rehabilitation, modernization and creation of new infrastructure especially in roads, ports, airports, energy and urban sectors which has been approx. 4.6% of the GDP over the period 2009 to 2013. There has also been a tremendous focus on resettling the internally displaced and rebuilding the Northern and Eastern provinces that were inaccessible during the conflict, with the aim to reconnect with the rest of the country. The increased spending on infrastructure has been financed through bi-lateral and multi-lateral sources as well its own resources raised in the international capital markets.

### **Sectoral and Institutional Context**

The road network in Sri Lanka is extremely dense and the predominant mode of transport, carrying 95% of the passenger traffic and 98% of the freight. The road network is classified as: national, provincial and rural, based on ownership and management responsibility. The national roads and the expressway network consist of 12,164km and 160 km respectively, and are managed by the Road Development Authority (RDA) under the Ministry of Highways, Ports and Shipping. The management of the expressway network is expected to be handed over to an Expressway Authority to be soon established, for which a legal framework is currently being drafted. The provincial network comprising of 15,530 km are being managed by the respective nine provincial councils. The network of rural roads consisting of approx. 88,200.km are owned and managed by 335 local authorities.

The RDA, established under an act of Parliament is currently responsible for the planning and implementation of the national roads and expressway networks and is overseen by the Board of Directors. Day to day operation is managed by a Director General and 17 Directors. It has approx. 10,500 employees, including 615 engineers. About 58% of RDA employees are laborers that are engaged in routine and periodic maintenance works.

The Mahinda Chinthana (2006), the Poverty Reduction Strategy of The Government of Sri Lanka has (GOSL) identified the improvement of the road network as a priority with the aim to connect rural areas to markets, create employment and provide associated services. Focused on poverty reduction and shared prosperity, the aim of the Government has been to increase connectivity to rural and underserved parts of the economy so as to provide 80% of the population that live in rural areas an opportunity to participate in the economic growth of the country as well as to create a high mobility inter regional network of expressways for movement of people and goods. The Government also intensified its plans to develop adequate road sector institutions as well as the contracting industry to successfully operationalize this strategy. This strategy also resonates with the Bank's Transport Sector strategy note completed in 2012.

Based on the current National Road Sector Master Plan, RDA has over the period of 2005-2013 rehabilitated about 4500km of national roads and constructed new expressways in length of 160km.

The Government over the period, from 2009-2013 has channeled an amount of US\$ 5.5 billion for the improvement of the national network and the development of the expressways. About 34% of the investment in rehabilitation has been financed by the Government's own resources. This funding has thus contributed to the improvement of the national roads, increasing the roads in good and fair condition from 48% to 65%.

Over the past decade the following two major areas of institutional reforms have been implemented.

(i) Separation of owner and supplier of services - Over a decade ago, at the time of the Bank entering the transport sector, all capital works were carried out through a state owned organization, the closure of which contributed tremendously to the development of the contracting industry in its present form. The rehabilitation and construction of the new roads are presently carried out through local and international private contractors while the routine maintenance and emergency works are addressed through in-house labor. Many actions initiated by the Government have led to the significant development of the domestic construction industry that are currently performing equally well with the international contractors.

(ii) Sustainable financing and management of the road maintenance works - The Road Maintenance Trust Fund (RMTF) currently functions within the Ministry of Highways, Ports and Shipping with the task of addressing the periodic and routine maintenance needs of the national network. RMTF is managed by a Board of Trustees and is assisted by a Secretariat that works closely with the planning unit of RDA in setting the works priorities. RMTF also carries out the allocation of funds, monitoring and auditing of the contracts financing maintenance. During the period 2005-2013, the amount of funds channeled in to maintenance through RMTF as a budgetary allocation has increased from US\$ 13 to US\$ 63 million.

There has been systematic and continuous coordination amongst Asian Development Bank (ADB), Japanese International Corporation Agency (JICA) and the Bank in providing support to the road sector which commenced with the entry of the Bank in 2005. In order to formalize the coordinated support amongst the three institutions, a sector framework agreement was signed indicating the functions and responsibilities of each partner in the overall support to the sector. The ADB has been entrusted with the responsibility of the re-engineering of RDA, JICA's support extended towards the capacity building of the private contractors and Bank's support focused towards the implementation of a sustainable arrangement for financing and management of rehabilitation and maintenance work related to national road network. Subsequently, in 2008, the three development partners have also coordinated in financing the program of US\$ 266 million for the development of about 970km of the provincial road network.

Subsequent to the cessation of the conflict, the construction work has increased tremendously driven mostly by increased volume of road projects. The sector has been faced with challenges such as capacity of contractors and road agencies, availability of suitable raw materials etc in meeting the increased volumes. This has resulted in increased cost associated with variations and extensions of time as well as weak contract management. Limited financial and technical control, inadequate systems for monitoring and evaluation have thus contributed to the increase in transport cost and issues related to quality of construction. The proposed project aims to improve some of these issues.

The Bank's support to the road sector through several projects have been mainly in rehabilitation

of national, provincial, rural roads and bridges as well as addressing climate resilience through increased safety measures for slope stabilization. Further, the current on-going Road Sector Assistance Project under implementation by RDA for 9 years has been a transformational project that has been initiated to address the backlog of maintenance due to years of neglect. In addition during the long term partnership between the Bank and the RDA, the Bank has supported several institutional changes and reforms and financed the piloting of several initiatives to address adverse issues within the sector including development of the contract management capacity within the RDA.

### **Relationship to CAS**

The project is aligned with the Country Partnership Strategy (FY2013-2016) and will support one of the three focus areas, “Improved living standards and social inclusion” by essentially providing improved quality of services through improved connectivity and sustainability of services. The proposed project is focused on improving the quality of services along the identified road corridor/s within a program coordinated with other donors as well as strengthen the system for the provision of such services in order to ensure sustainability.

## **II. Proposed Development Objective(s)**

### **Proposed Development Objective(s) (From PCN)**

The Project Development Objective (PDO) is to improve connectivity in target corridor(s) through the life cycle approach to asset management.

### **Key Results (From PCN)**

The PDO is expected to be measured through the following indicators:

- a) Roads (national) rehabilitated (km).
- b) Average network vehicle operating cost (Rs/km).
- c) Average travel time for the improved corridors (hrs).
- d) User Satisfaction (%).

## **III. Preliminary Description**

### **Concept Description**

Based on the strategy laid out by GOSL for poverty reduction through improved connectivity, 1000 Grama Sevaka Niladhari Divisions (GND's) that are currently under served have been identified within the program to improve connectivity to these GND's by rehabilitating about 800km of national roads, 1500km of provincial roads and 4,000km of rural roads. The GOSL intends to develop this concept within a well-conceived development program, supported by several development partners. ADB has, within this program, already committed approximately US\$ 800 million over a period of 5 years for the rehabilitation of about 400km of national roads and over 3000km of provincial and rural roads, using a multi tranche facility. ADB support for the six provinces and Colombo-Kandy corridor applying the road asset management concept is expected to be approved by the ADB Board of Directors in October 2014. The Bank team has been in continuous discussions with ADB in coordinating the strategy and the development of the roads asset management concept which will form the basis for the planned projects under their financing.

The GOSL in the past has been primarily focused on rehabilitation and improvement of its road network and given the competing demands together with the budgetary constraints, financing of maintenance has been secondary. The channeling of funds in to maintenance of the network has

been usually delayed primarily due to uncertainties in fund flow and increased pressure on the budget due to cost escalations in rehabilitations and new constructions. These continuous delays of maintenance works have influenced adversely the entire road network, causing losses in assets in principle.

To date, all of the civil works contracts in the road sector in Sri Lanka have been input based contracts. The recently completed study by the Bank on “Time and cost overrun study in the road sector” suggest that a typical road rehabilitation contract in the past have reached cost variations ranging from 38% to 53% with the associated time extensions on contracts in the range of 7.5% to 180% from the initial period up to completion, resulting in substantially increased time and cost, contributing to difficulties in financial control. These input based contracts and their limited defect liability periods have significantly contributed to the issues of quality of works, demonstrated by the defects appearing after the end of the contractual defect liability periods, undermining the asset life and causing additional financial burden.

The RDA in order to provide timely and orderly required physical interventions on the road’s assets within their designated “life cycle” (8-10 year period), intends to rehabilitate, operate and manage the country’s high traffic congested corridors based on the road asset management concept using an output and performance road contract format (OPRC) under design- build- maintain-operate and transfer methodology (DBMOT).

The asset management concept has already been introduced to RDA and the first pilot project will be prepared as a vehicle for OPRC/DBMOT through a doing and learning process. The pilot project will address these challenges currently encountered within the sector and as reflected in the implementation of the current project. The proposed project will incentivize the optimal use of funding, provide best value for money, secure long-term maintenance, provide better transparency and accountability by reducing the number of transactions/contracts, reduce cost of ownership, improve customer focus, avoid frequent claims and contract amendments and achieve a reduced exposure to construction and maintenance risks.

The OPRC used for asset management purpose will require a Contracting Entity (CE-an entity capable of planning, managing, designing and implementing an investment) to carry out the respective detailed design, construction, maintenance, operation and transfer back to the RDA under specified Service Levels. As a result of this contract arrangement and the methodology applied and paid as lump sum, the client achieves total technical, financial and time wise control of such project. To guarantee use of technical and qualitative specifications and other guidelines, the client also appoints Monitoring Consultant (MC) who on his behalf controls the achievement of the project milestones, substantiated by series of contractually prescribed field and laboratory tests. The principle of these types of contracts revolve around making payment as a percentage of the total agreed project’s lump sum price, based on the series of fully achieved outputs, by the contracting entity, as oppose to inputs to the contracts, as traditionally practiced in Sri Lanka . Hence, the CE is required to bear the project risks associated with the detailed design, construction and maintenance, as these will be carried out by the CE itself. In addition, as the risk of design and implementation is transferred to the CE, it would require less resources and capacity from the road agency and relieve the road agency of intense day to day supervision.

In selecting the adequate and the most appropriate method for implementation of the proposed Project, RDA has carefully considered all socioeconomic, technical, financing, environmental and

operational benefits of the two basic options of; a) input based and/or b) output and performance based contracting. The RDA has also considered the two basic implementation options of a) single intervention model and its sequential application during the life cycle of the asset and b) long term asset management concept using design, build, maintain, operate and Transfer methodology in selecting the asset management concept due to its benefits over the single intervention model. In selecting of the corridors for the pilot project, RDA has also carefully reviewed all aspects of the national road corridors and based on the prioritization parameters chosen the corridors included in this Project, with the ultimate aim to replicate the lessons learnt to the entire national network.

The asset management concept through the use of OPRC / DBMOT contracting has been successfully implemented worldwide, in Europe OECD countries, USA, Israel, New Zealand, UK, etc. and by the Bank in several regions such as in Africa (Liberia, Zambia, Botswana), Latin America (Brazil, Argentina), India, etc. A recent evaluation of the cost of construction done in Liberia indicated a reduction in the cost of such projects in a magnitude of approx. 20% to 25%, involving rehabilitation, maintenance and operation. Similarly, in OECD countries, the saving was recorded, using output and performance contracting, in magnitude of 30-40 % in comparison to the traditional contract formats and methodologies.

#### IV. Safeguard Policies that might apply

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>	<b>TBD</b>
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04	x		
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11	x		
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

#### V. Financing (in USD Million)

Total Project Cost:	125.00	Total Bank Financing:	125.00
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
Borrower			0.00
International Bank for Reconstruction and Development			125.00
Total			125.00

#### VI. Contact point

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