II. Sectoral and Institutional Context

The Liaoning Coastal Zone Development Plan (LCZDP) was launched in 2009 by the Government of China (GoC) with support from the Liaoning Provincial Government to help with the economic revitalization of cities and the region and create a gateway to the Northeast of China and surrounding countries. The Liaoning coastal zone, comprising of the Bohai Bay Area and the Yellow Sea Coast, has the city of Dalian as its anchor and hub for development. The comprehensive strategy intends to guide the development process around urban and economic clusters and help protect valuable ecosystems and create livable cities with better public services to attract people and investments. A department within the Liaoning Provincial Development and Reform Commission (LDRC) was created to oversee and guide the LCZDP implementation process.

The LCZDP is in line with China’s 12th Five Year Plan (2011-2015) of inclusive growth and balanced rural and urban development, which emphasizes city and town development as a means to provide a higher standard of living to rural immigrants without exacerbating environmental and other problems affecting large cities. The strategy also advocates for a shift of focus from infrastructure-based to a “people-centered” development. The LCZDP further focuses on environment protection, creating incentives for clean production, promoting energy conservation and emission reductions, and intensifying pollution control.

A key challenge for the development of the Liaoning coastal zone will be to coordinate and integrate plans of different cities and balance competing demands for urban expansion, infrastructure, financial investments, economic growth, industries, agriculture, and natural resources, while minimizing pollution and ensuring the valuable ecosystems and natural resources are protected and do not become a constraint for future growth and development. The planning capacity of local authorities is often very weak and mostly a top-down process with little interaction with
local stakeholders and understanding of actual demands and investment needs and priorities.

The urbanization rate in the selected counties and cities is still relatively low as shown in the table below. As a result, these cities are likely to continue to grow considerably in the coming decades. Furthermore, the GDP per capita varies considerably among cities, ranging from RMB 14,176 (USD 2,250) in Suizhong County to RMB 66,546 (USD 10,560) in Panjin City. The planned rapid industrialization and urbanization rates will be putting increased pressure on existing infrastructure of medium-sized cities in the coastal zone of Liaoning. In order to sustain economic growth, attract more private investments, and service a growing urban population, construction and rehabilitation of basic infrastructure and improvement of urban transport systems is a priority, but this needs to be carefully balanced with more efficient use of land and natural resources.

Liaoning Province is already facing serious problems with water pollution and water scarcity issues that might limit future development. The average availability of water resource per person in the province is 820 m³, which is one third of the national average. Except for a few areas in the East, most of the province experiences severe water scarcity. The water supply in Liaoning relies on dams and groundwater extraction. Years of over-exploitation of groundwater has caused many serious problems in the province such as a falling groundwater table, sinking surfaces and cave-ins, seawater intrusion, and secondary salinification of the coastal area. Most river basins also suffer from the problems of water pollution and under-served water and wastewater infrastructures. The runoff of the rivers is too low to provide sufficient dilution times and self-purification capability to the wastewater discharged. This poses an additional challenge to pollution control in these rivers and innovative approaches to tackle water scarcity and pollution are required to reduce the problems.

The exploitation rate of groundwater in Liaoning province has exceeded 95 percent, creating ecological problems such as seawater encroachment, and in February this year the Provincial Government implemented the toughest regulations yet to address excessive exploitation of groundwater. It banned all new groundwater drilling projects and set a target of cutting the extraction quantity by more than 1.2 billion m³ by 2015. Companies are required to look for alternative sources of water, including reusing, recycling and reclaiming water. One of the selected subprojects will foster cooperation between the wastewater treatment plant in Lingyuan and industries and be a model for water reclamation for the region.

Cities in the coastal zone of Liaoning are investing heavily in new road infrastructure, especially in proposed new development zones, while many of the existing urban infrastructure especially in the old urban areas, need urgent rehabilitation and upgrading. Increased traffic and congestion is starting to become a serious problem in some cities due to the rapid increase in motorization rates, deficient road infrastructure, irrational use of road infrastructure, and deficient public and non-motorized transport systems. This project will foster an integrated approach to transport planning, combining infrastructure investments with traffic management improvements, better public transport services, and integrated transport and land use planning. The medium-sized cities along the coast in Liaoning are uniquely positioned to make decisions today that might greatly improve the livability and transport services offered in these cities in the future.

This project will support the LCZDP, the GoC, through the National Development and Reform Commission (NDRC) and Ministry of Finance (MOF) to provide better public services. The subprojects will address a few critical water and transport issues that are hampering long-term development of the Liaoning Coastal Zone and will also help reduce environmental impacts as a result of rapid development and urbanization of the region. Donggang City, Kuandian County, Longcheng District, Lingyuan City, Panjin City and Suizhong County (hereafter “Project Cities”) are strategically located near the Liaoning coast and form an integral part of the economic cluster development and transport axis that is being proposed in the LCZDP. The urban transport subprojects are addressing problems of increased traffic and deteriorating public transport and road infrastructure in the towns and cities. The water related subprojects in Lingyuan and Suizhong were selected to provide good examples of integrated investments to address critical water pollution and scarcity issues. The subproject in Suizhong will address the challenges the city is facing with water pollution and poor drainage due to encroachment of existing canals, siltation and reduced hydraulic flows.

Besides ensuring that each subproject complies with government regional and local plans and addresses critical urban transport and water issues, the Project Cities and subprojects were selected based on the following criteria: (i) strong justification based on detailed analysis of current and future demands; (ii) cost-effectiveness and economic and financial returns; (iii) overall environmental and social benefits to the city; and (iv) the long-term sustainability both from a financial as well as operational point of view. The project includes a number of innovative approaches in terms of water reclamation, road designs that prioritize NMT and public transport, and the inclusion of the preparation of an asset management framework to ensure long-term sustainability of project financed facilities.

III. Project Development Objectives

The proposed Project Development Objective (PDO) is to improve the efficiency of urban transport and address water scarcity issues in selected cities in Liaoning Province.

IV. Project Description

Component Name
- Improving Urban Transport Systems
- Improving Urban Wastewater Treatment and Reclamation
- Technical Assistance, Training and Advisory Services

V. Financing (in USD Million)

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VI. Implementation

VII. Safeguard Policies (including public consultation)

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<tr>
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