

## **Visakhapatnam Industrial Water Supply Project**

### **Innovation Report**

#### **I. The Context**

- (1) The State of Andhra Pradesh has been at the forefront in providing a favourable climate for I.T. agriculture and industrial promotion and to support these large-scale initiatives, the Government of Andhra Pradesh (GoAP) encourages Public Private Partnership (PPP) in infrastructure projects. Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) is a wholly owned corporation of the GoAP, with specific mandate to develop and implement industrial infrastructure projects in the State
- (2) Visakhapatnam Industrial Water Supply Project (VIWSP) is an initiative taken up by APIIC in partnership with IL&FS and is one of the first mega infrastructure projects to be taken up by the GoAP for development with private sector participation. The Project, being very complex in nature, warranted significant development efforts. The Project development work started in the year 1998 with a Detailed Feasibility and Investment Banking Report (DFIBR), culminating in selection of the Developer in February 2003, through an international competitive bidding process
- (3) VIWSP is aimed at supplying 520 Mld bulk water to a combination of green field developing industrial and economic development in the Visakhapatnam region like Special Economic Zone (SEZ), Pharma City and Gangavaram Port in addition to meeting water demand of 206 Mld of existing bulk consumers like VSP, Simhadri Power Plant of National Thermal Power Corporation (NTPC) and Visakhapatnam Municipal Corporation (VMC). In fact, the entire eastern corridor between Kakinada and Visakhapatnam is identified for industrial development. The water requirement for all these developments would be met through VIWSP, as there is no other economically viable source of water in the area. The Project is also designed to cater the need of the irrigation
- (4) VIWSP is the second water sector project of its kind in India developed by IL&FS on a commercial format through PPP, after the successful development of Tirupur Integrated Water Supply Project. However, VIWSP was the first mega water sector project developed on PPP in the country, which has been commissioned in September 2004 and came into commercial operation since December 2004
- (5) Period:
  - (a) Construction Period (Phase-I): 2003 – 2004 (15 months)
  - (b) Start of Commercial Operations: December 25, 2004

- (c) Manifestation of Impacts over Project Horizon: The overall impact of the project is efficient use of water as a valuable resource for industrial, domestic and agricultural usage. The Project envisages rehabilitation of the existing canal that currently has more than 60% losses. This will result in significant saving of water that can be used to support industrial growth. The augmented canal capacity can be used to convey additional water for irrigation use. The industrial and domestic water requirement is further augmented by abstraction from River Godavari, whose water otherwise is flowing down to the Bay of Bengal
- (6) Needs and Objectives of the Innovation:
- (a) Visakhapatnam City is strategically located on the East Coast of India and is the hub of the major industrial activities due to presence of India's largest Sea Port and establishment of major public sector industries like Visakhapatnam Steel Plant, Hindustan Shipyard, Hindustan Organics, Bharat Heavy Plates and Vessels, etc.
- (b) The GoAP has developed a master plan for industry-led economic growth in the Visakhapatnam region. On a broader canvas, the Visakhapatnam area is being developed to become a major investment location on the East Coast of India. Some of the recent initiatives for this vision include the development of SEZ, a Greenfield Port at Gangavaram, a Pharma City at Parwada, a Special Logistics Corridor, etc.
- (c) As a consequence of above developments, the industrial growth potential in the Visakhapatnam area is expected to be high. However, a major constraint for this development was the absence of a reliable source of water supply. The VIWSP is conceived to overcome this shortcoming through the provision of reliable water supplies for the industries and domestic consumers and incidentally providing an arrangement for meeting the irrigation demands

## **II. Impact Assessment**

- (1) The Visakhapatnam Industrial Water Supply Project is a unique project involving number of stakeholders, including consumers who also turned out to be the major lenders and stakeholders of the project
- (2) Achievements within the Organisation: Motivation and dedicated team efforts coupled with wide range of skill sets including technical, managerial, financial and legal experts within the organization ensured successful closure and implementation of this project. Some of the major achievements are listed below

- (a) Innovative Project Implementation Management: Success of the project implementation process featured on defining a detailed program or a project implementation cycle, of tasks & responsibilities across the organization and outside it. This resulted in construction of the project in a record time of 15 months including land acquisition
  - (b) Innovative Integration to meet regional requirements: This is the first project in the country to integrate industrial, domestic and irrigational demands of the project influence area. The formation of the VIWSCO upfront in the process served as the platform for bringing together all the key stakeholders of the project during the developmental process. This facilitated information exchange, resolution of conflicts between the stakeholders and established an expeditious process for taking this complex green-field project to fruition
  - (c) Innovative Financial Packaging of the Project: The innovative financial engineering and security structure resulted in a greater clarity and understanding of risks and means to mitigate them
- (3) Achievements Outside the Organisation: Being a demand based project that will be the water supply life-line in the Vizag Economic Corridor, the Project has political and administrative support at the State level. The institutional framework in the form of an Infrastructure Authority, set up for the purpose of facilitating the Project development, has been very proactive in decision-making. In addition, there was a serious political commitment to the Project. Further, review of the progress of the Project is being done at the level of Cabinet Sub-committee and the Chief Minister, with directions for sorting out administrative issues
- The continuous involvement of all stakeholders – Project development organizations, government, bidders and consumers – has enabled necessary mid-course changes with appropriate risk allocation, thereby ensuring a bankable and successful Project development
- (4) Specific Socio-Economic Impacts: As a part of project development process, a detailed Environmental and Social Assessment Report (ESAR) was prepared. It was observed that on one side the canal was creating problems for the water logging for the farmers due to seepage on the other side at some locations canal seepage was benefiting the farmers who were moved from one crop to 2-3 crops in a year

- (a) The rehabilitation of the canal has been optimized resulting in capacity enhancement and that would enable Irrigation Department to convey water for irrigation purpose. The large seepage areas were prioritized to avoid water logging along the canal
- (b) Thus the project is complimentary in meeting irrigation demands at the time of meeting industrial and domestic water supply, resulting in socio-economic benefits to the farmers
- (c) The Project will directly benefit the industrial development between Kakinada and Visakhapatnam. The Government intends to develop this industrial stretch as an Economic Corridor, with this water supply Project coupled with recent gas finds in KG basin, upcoming large power plants (including existing ones), greenfield ports at Gangavaram, Kakinada, etc., and airport upgradation at Visakhapatnam. It is expected that the Eco-Corridor would attract over USD 1 Billion of investments over the next 5-10 years with an annual production of over USD 4 Billion
- (d) The Project would meet long term water shortfall of 182 Mld for Visakhapatnam City, the city which is poised for a second IT destination in the State and also an upcoming industry cum tourist destination. The Project will also be facilitating direct benefit for irrigation of about 15,714 ha. (38,829 acres) land along YLBC