

APPLICATION GIS IN WATER QUALITY DATA MANAGEMENT, CASE STUDY: INDUSTRIAL PARK AND PORT, BA RIA - VUNG TAU PROVINCE

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ABSTRACT

Port development is a strength of Ba Ria-Vung Tau province. The expansion of ports has generated favourable conditions for the development of industrial zones and transport of goods at both national and international levels. However, the rapid development of port and industrial zones has posed relatively large impacts to the surroundings, particularly the water environment along the Thi Vai-Cai Mep River, Ganh Rai Bay.

In almost every places where ports and industrial zones are located, water quality is more or less polluted (oil and grease, organics, heavy metals...). Water pollution directly affects the aquatic inhabitants (death of shrimp and fish, underdeveloped mangroves) and after all affects the local people.

This paper show the application of ArcGIS software with its tools for spatial analysis, spatial statistics and analytical methods, object-oriented database design in the management and analysis of spatial and non-spatial of water quality data in Vung Tau port and industrial areas. The results show that using these techniques can be cost-effective and less time-consuming.