



Smart JAMP(2021) Pre-feasibility Study on the Introduction of Clean River Management System for the Realization of Smart City in Bandar Seri Begawan, Brunei Darussalam

Category of Issues in the Area



Target Area	<ul style="list-style-type: none"> Bandar Seri Begawan, Brunei Darussalam The Brunei River and its basin flowing through the city
Background and Purpose	<ul style="list-style-type: none"> The Brunei River, which flows through the Brunei's capital, is the birthplace of the Kingdom of Brunei. A floating village (Kampong Ayer) is a living historical heritage that carries its history and culture into the present. The Bruneian government is trying to preserve this traditional Kampong Ayer as an "urban jewel" for the future and revitalize it as a source of national pride. Still, the recent river litter problem is particularly troubling in this area. In this project, a countermeasure plan for this river litter problem is proposed.
Related Organization	<ul style="list-style-type: none"> Ministry of Transport and Info-communication (Smart Nation Office) Ministry of Development (Policy Coordination and Strategic Planning Division) (Department of Environment, Parks and Recreation)
Project Stage	<ul style="list-style-type: none"> Pre-feasibility Study
Contents and Results	<ol style="list-style-type: none"> <u>Identifying the current situation on the river litter generation</u> <ul style="list-style-type: none"> Aerial drone photography and topographic characteristics reviews were conducted to survey litter deposition status. Further, questionnaires to residents in the river area were conducted to survey litter collection and disposal status. <u>Considering the introduction of the system for clean river</u> <ul style="list-style-type: none"> The effectiveness of automatic river litter decoding and quantification system (RIAD system) that records video images of river water surfaces and automatically estimates the actual amount of debris flowing down the river was proved through test running in the Brunei River. <u>Proposing action plan</u> <ul style="list-style-type: none"> Action plan such as selection of installation locations and equipment, and the project organization for the introduction of RIAD system was proposed.

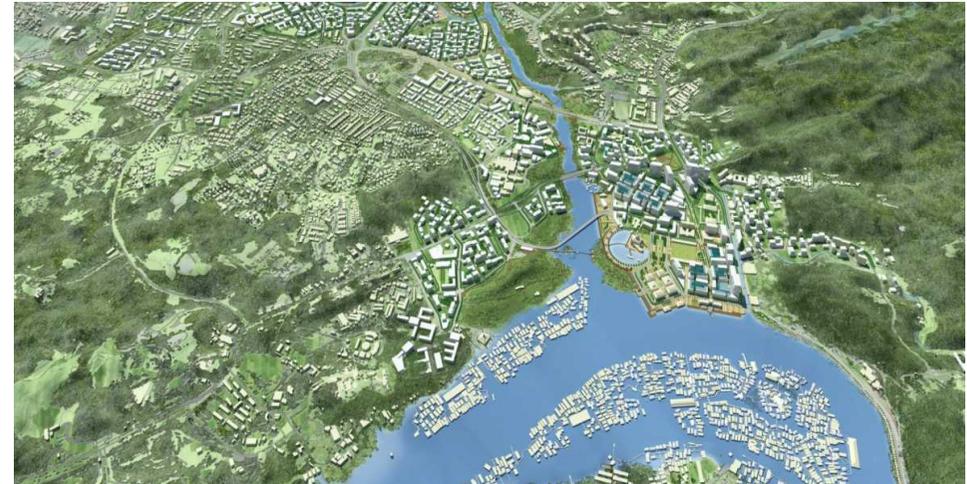


Figure1 : Brunei River and its basin flowing through Bandar Seri Begawan City



Figure2 : Litter collection and disposal status

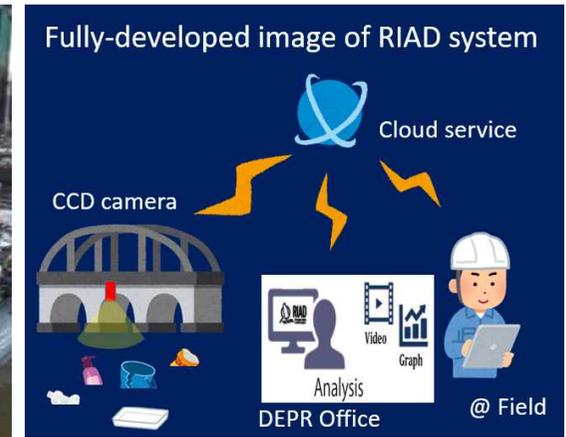


Figure3 : Automatic river litter decoding and quantification system(RIAD system)