

## Temburong Bridge, Brunei Environmental Impact Study and Mitigation Measures

Naeem Hussain, Steve Kite, Franki Chiu Arup, Hong Kong

Kok Kong Chin Arup, Brunei

Garry Anderson MWH, Brunei

**Hj Mazlan Bin Hj Abd. Salim** *Public Works Department, Brunei* 

Contact: <u>naeem.hussain@arup.com</u>

## Abstract

The new 30 km Cadangan Projek Jambatan Temburong (Temburong Bridge Project) in Brunei will connect the relatively isolated district of Temburong with the more developed Brunei-Muara district. The route alignment, selected to have the minimum environmental impact, goes across the Mentiri Hills and then crosses over the shallow waters of Brunei Bay and through the mangrove and peat swamp forest in Temburong.

An Environmental Impact Assessment (EIA) was carried order to identify, assess, and mitigate the primary environmental risks associated with the construction and operation of the project. This paper describes the study and mitigation measures both during construction and operation.

**Keywords:** Brunei, mangrove forest, swamp forest, dredging and disposal, acidic soils, endangered species, top down construction, animal crossing.

## 1. Introduction

In March 2012, Arup completed the Feasibility Study [1] for the road and bridge link between Brunei–Muara District and Temburong District in Brunei. A Preliminary Impact Assessment (PEIA) was carried out at the Feasibility Stage the purpose of which was to:

 assist the route selection assessment by assessing the environmental impact of different options based on desktop study

- carry out a preliminary environmental impact assessment for the proposed alignment
- recommend strategic mitigation measures to mitigate the impacts of the project
- identify the additional studies required during the detailed design phase

At the detailed design stage a comprehensive Environmental Impact Assessment (EIA) was undertaken by MWH in collaboration with Arup in order to identify, assess, and mitigate the primary