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Physical Features and Hydrography

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1.1 Introduction

The Klang and Langat Rivers flow into the Straits of Malacca to form the compound Klang Delta and Klang Strait (Fig. 1). The delta is distinguished by its complex network of inter-connecting tidal channels, which also serve as distributaries of the rivers. Extensive low tidal flats of sand-mud sediments are present and are intimately related to the delta formation. Lying between the tidal channels are mangrove swamps, which are now essentially confined to the six most offshore islands for the state of Selangor. The innermost island, Indah Island, had lost most of its mangroves in 1999 for the development of West Port and industrial estates.

The Klang Strait, as indicated by Admiralty Chart No. 3453 (London), spans the narrow corridor between Klang Island and Che Mat Zin Island on the west, and Indah Island and the mainland on the east (Fig. 1). However, Coleman *et al.* (1970) described the Klang Strait as a channel extending farther northwest based on topographical and hydrographical evidence. The northwest extension of Klang Strait spans an additional distance of 45 km, and the large funnel-shaped strait is bounded by extensive sand-mud shoal (Angsa Bank) to the west and by coastal mudflats to the east. The greater part of the channel does not exceed 11 m in depth although at its northwest entrance it exceeds 18 m, and this is the northern approach for shipping vessels entering into Port Klang.

Angsa Bank, extending 40 km north-westward from Klang Island, is nourished by continuous sediment transport from the south. It has a mean water depth of less than 3 m and is exposed at its vicinities west and south of Angsa Island during extreme low spring tides. Similarly, at the lowest tides the mudflats located due east are uncovered for seaward distances of 1 to 3 km. At its southern end, the Klang Strait merges into the complex of tidal passes within the Klang delta. Thus, the system functions as an open-ended estuary.

The above broader definition of Klang Strait (*sensu* Coleman *et al.*, 1970), is adopted in this book. This chapter introduces the physical and hydrological features of the Klang Strait.

Mangrove and Coastal Environment of Selangor, Malaysia

**Editors
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