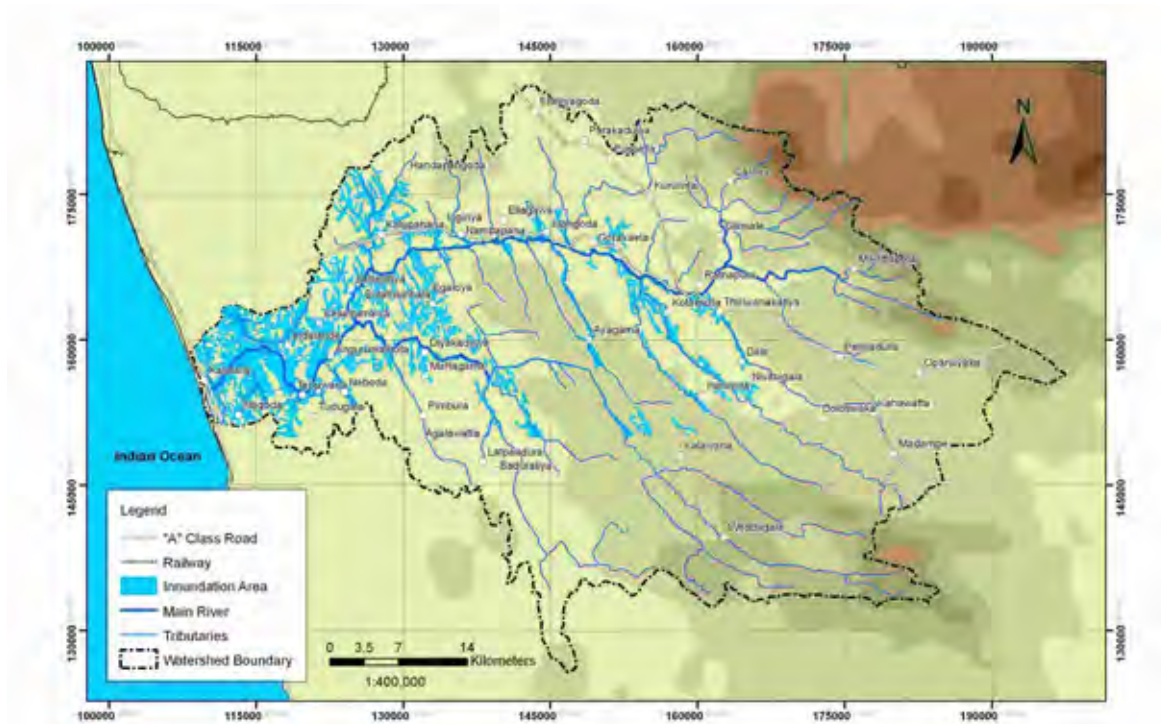


## 2.4 Kalu River Basin

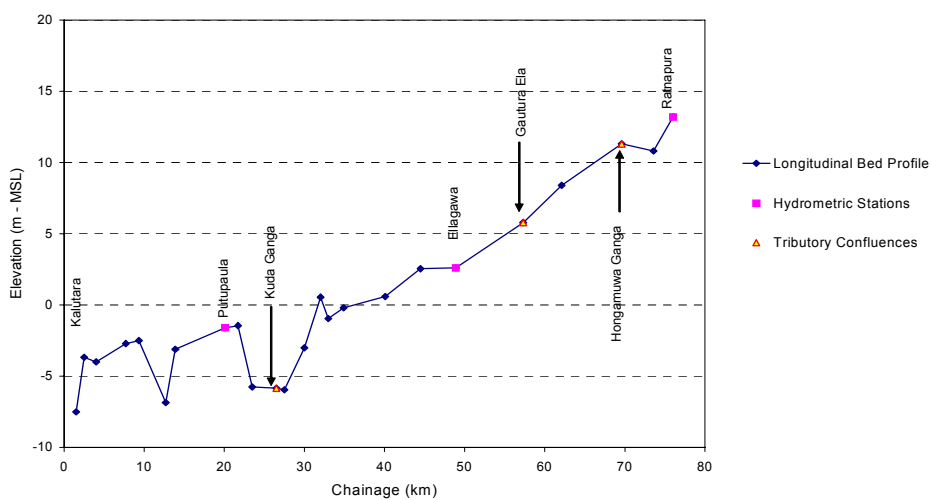
### 2.4.1 Basin Overview

The Kalu River, originating in the central hills of Sri Lanka, flows through Ratnapura and Horana and empties into the Indian Ocean at Kalutara with a total length of about 100 km and catchment area of 2,690 km<sup>2</sup>. The river basin lies entirely within the wet zone of the country and average annual rainfall in the basin is 4,040 mm (Figure 9, Figure 10).



Source: JICA Study Team

Figure 9 Location Map of Kalu River and Inundation Area (May, 2003)



Source: Hydrology Division of DOI

Figure 10 Longitudinal Profile of Kalu River

Summary

2.4.2 Flood Management Master Plan for Kalu River Basin

Structural Measures

Table 6 Proposed Major Components in Master Plan (Kalu River)

	Kind of structure	Major dimensions
Short Term Plan	1. New sluices	24 nos.(Kalutara area), 9 nos.(Ratnapura area)
	2. Ring levee in Ratnapura	Concrete wall (L=6.2 km, H=4.0 m) Embankment (L=6.4 km, H=4.0 m)
	3. Flood bund in Kalutara	Left bank (L=9,625 m, H=3.3 m) Right bank (L=11,730 m, H=3.2m)
Long Term Plan	4. Flood bund (heightening)	Left bank (L=9,625m, H=4.7 m) Right bank (L=11,730m, H=4.4m)
	5. New pump house	13 nos. (Q=3.0 m <sup>3</sup> /s, H=5.0 m)

Non-structural Measures (to proceed in parallel with the short-term plan)

Table 7 Non-Structural Measures to be Promoted (Kalu River)

Measures	Major Items
1. Early warning and monitoring system	6 rain gauge stations 3 hydrometric stations
2. Restriction of further development in urban area	Management and monitoring of land use Prohibiting housing development in flood prone area Flood zoning with hazard mapping,
3. Promotion of water-resistant architecture	Heightening of building foundation Construction of column-supported Housing, change to multi-storied housing Water proofing of wall/housing materials, etc.
4. Promotion of flood fighting activities	Information dissemination in the communities, Evacuation to safer area, Removal of properties in house/building, etc.
5. Institutional strengthening of implementing agency	Consensus building for project implementation Integration with urban development and land use development plans

Source: JICA Study Team

