

## Explore the Possibilities of Reducing Train Delays between Colombo Fort and Maradana

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Sri Lanka Railways (SLR) is operating around 300 passenger train movements daily across its 1400 Km rail network. About 90% of train movements out of this have Maradana or Colombo as the destination or the starting point. It further leads to a figure that around 50 trains which amount to more than 30% of the Colombo reaching train service is reaching either Colombo Fort or Maradana daily within the morning peak time. All these train movements are using the Colombo – Maradana block section which comprises of only four rail tracks, hence causing a reasonable delay for the morning peak hour train service.

Delay in this particular section is commonly identified as caused by the lack of infrastructure which includes less number of Platforms, inappropriately arranged service feeders (depots) and low flexibility in the signaling system. In addition to this the overlap operation between Colombo and Maradana, that is by always keeping the further station as the destination point has also created additional train movements which leads the situation to an even worse.

Objective of this research is to find out the root cause for the delay in the Colombo Fort – Maradana section and explore the possibilities of reducing train delays. In this view, the delay portion pertaining to this section is quantified through a survey and it confirms the worthiness of the research. It was then continued to check the actual requirement of continuing the overlap operation and in results, sufficient evidence found for a service restriction. Actual line and platform utilization at present were calculated to find out whether any alterations are required to the systems and operational practices. Train feeding arrangements are also studied for suggesting modifications for the practices in order to catch up the delays. Mainly the issues in reducing the number of train movements in the section and reshuffling the feeding arrangements to achieve this target are addressed in this in this research.

**Key words:** travel time delay, passenger train movement