

## A Study on Developing a Multimodal Transport Hub for Kilinochchi

S HAREINDIRASARMA<sup>A\*</sup>, P PRIYANTHAN<sup>A</sup>, W PRIYANTHA<sup>A</sup>, G THUSHANTH<sup>A</sup>, T KAJENTHIRAN<sup>A</sup>, C PIRAKASH<sup>A</sup> and A ANBURUVEL<sup>B</sup>

<sup>a</sup> Faculty of Engineering, University of Jaffna, Sri Lanka
<sup>b</sup> Department of Civil Engineering, University of Jaffna, Sri Lanka
<u>hareindirasarma@gmail.com</u>

## Abstract

With the establishment of a university, large-scale garment and food processing industries, and many small to medium enterprises, Kilinochchi is at the peak of its development. Extensive land availability and resources make Kilinochchi Northern Sri Lanka's next potential tourist attraction after Jaffna. Being at the centre of the Northern Province makes Kilinochchi accessible from national and regional urban centres of the country. The present transport set-up in Kilinochchi comprises two major modes of public transport - bus and train, and private transport which is less comfortable, disintegrated, and which burdens passengers, especially the elderly and differently-abled. A fullyfledged railway station is in operation where seven services are available in both directions between Jaffna and Colombo. Ninety percent of transport is by bus transit services operated by Sri Lanka Transport Board (SLTB) and private operators; providing connectivity with all other regions. SLTB and private bus terminals are located approximately 1 km from the railway station, connected by privately owned para-transit services. The Central Business District (CBD) located near these bus terminals is approximately 0.8 km from the railway station. Thus, developing Kilinochchi as a multimodal transport hub will provide a comfortable travel experience for users, attract more visitors, promote public transport, and boost the economy. This study aims to investigate the feasibility of establishing a multimodal transport hub in Kilinochchi by integrating the existing transport, commercial, and other facilities. The study includes an examination of the existing master plan of Kilinochchi, comprehending present transport infrastructure, and conducting questionnaire surveys and classified vehicle count surveys at stipulated locations.

Examination of the master plan indicated that the area around the present railway station is ideal for establishing a multimodal transport hub. The public opinion survey on the location of the multimodal transport hub was conducted on 200 stakeholders. Its results further reinforced that 56% of the surveyed population wanted the transport hub near the present railway station. Of these respondents, 54% are between 18 and 40 years of age and are frequent travellers who realize the importance of multimodal transport terminals. In total 1,250 questionnaire surveys were conducted at popular schools such as Kilinochchi Central College and Kilinochchi Maha Vithyalayam, banks, markets, restaurants and some selected spots near the bus, railway terminals and CBD to explore present modes of transport, required improvements in existing transport facilities and required additional transport infrastructure. The questionnaire survey revealed that 53% are motorcycle users and users of public transport account for only 17%, indicating the inadequate attractiveness of currently available bus transit. Also, the classified vehicle count survey at depot intersection which is the major intersection through which almost 90% of the vehicles travel indicated that the average vehicle passing through depot intersection is 1,211 PCU (Passenger Car Unit) during morning peak hours. The study revealed that a multimodal transport hub for Kilinochchi located near the present railway station is an immediate need. It further recommends that medical facilities, food stalls, shopping malls, entertainment and cultural exhibits are established in the transport hub to make it more attractive.

**Keywords**: Transport Hub, Public Transport, Multimodal, Questionnaire Survey, Para-Transit