

# Abstract

The Southeast Asia (SEA) East-West Economic Corridor (EWEC) is an outstanding land route stretching across four countries; Myanmar, Thailand, Lao PDR and Vietnam. It is also intersected by several corridors and consequently supports interchange nodes and linkage of main hubs in the SEA region. To boost the economic expansion and increase revenue among these EWEC nations, the tourism development on this route has been raised. The EWEC is located in the potential periphery region and have highly scenic values composed of natural and historical resources, traditional cultures and distinctive lifestyles. However many of these sites have not been a priority destination. Some of them are still lack of tourism facility services and attractiveness in terms of potential evaluation to attract visitors.

The present study aims firstly to evaluate tourist attractions' potential along the EWEC region by applying GIS-based multiple models- analytic hierarchy process (AHP), multi-criteria evaluation (MCE) and network analysis. In addition, the study extends the previous results to investigate the influential factors affecting potential tourist attractions. Then, the areas lacking of facility services- mainly in the Savannakhet province, Lao PDR- are displayed and supported for expanding new possible locations of public services and investments of tourism industry. The GIS location-allocation analysis tool was used to support development of neglected tourism attractions including the weak peripheral areas throughout the main route.

Finally, the six EWEC tourist itinerary models are developed - En-route pattern, Radius Destination, Destination Area Loop, Möbius Loop, Open Jaw Itinerary and Complex Touring- to accommodate domestic and international traveling in this region. These models are implemented in ArcGIS Network Analyst for finding practically optimal routes in terms of distance and time saving. The 26 prioritized tourist sites obtained from the first results are selected to run on the EWEC itinerary models.

Our results show that the GIS-based network analysis is a potential tool to tourist initial travelling planning. The total outcomes of this study provide insights into the EWEC current situations of tourism sector and support tourism planning and development on the EWEC region as a whole. These strategies are also flexible to be applied in other regions around the world.