

The Impact of Transport Infrastructure Projects on Sustainable Development within a Major Logistics Gateway in North West England

Dimitrios PARASKEVADAKIS¹, Alan BURY¹, Jin WANG¹, Jun REN¹, Stephen BONSALE¹ and Ian JENKINSON¹

¹ Liverpool John Moores University, School of Engineering and Maritime Operations, Logistics Offshore and Marine Research Institute (LOOM), Liverpool, UK

Abstract—In the North West of England the issue of a perceived infrastructure gap is of increasing concern. Investment needs to be made to improve the transport infrastructure of the region if it is to be expected to promote the development of its own regional logistics gateway. Funding tools have been set up to address the challenges arising from the imbalance in infrastructure development that exists between regions in the north of the United Kingdom and those in the south. For regions with well developed economies the outlook is promising as the availability of modern transport infrastructure looks set to improve. However, some sources believe that the development of new transport infrastructure will have a negative impact upon sustainable development. It is expected that this will occur in a range of both direct and indirect ways. As a result, it is critical that planning for the creation of new intermodal transport infrastructure, or the upgrading of that which already exists, takes into account the impact that these developments will have on the sustainable development of the host region. A scenario based development methodology is proposed in this paper. It was developed to provide a way to identify potential scenarios that may arise within a given region as a result of transport infrastructure projects. To create significant scenarios the methodology is dependent on the availability of a sufficient quantity of quality data. For this paper that data was collected through a focus group composed of stakeholders from the region in question. This was further supported by the performance of an impact survey using the same group of stakeholders.

Key words—Multi-modal logistics, Gateways North West England, Focus Group, Impact Survey, Scenarios.

AUTHORS

Dimitrios PARASKEVADAKIS is with the Logistics, Offshore and Marine Research Institute (LOOM) at the School of Engineering and Maritime Operations in Liverpool John Moores University as a research associate and an MSc and PhD holder specialising in operations management and service quality of freight transport for businesses. He has years of experience in managing EU research projects in the field of transport and supply chain logistics. His research interests are in the areas of intermodal transport chains, logistics gateways, maritime and supply chain clusters, education and training (email: d.paraskevadakis@ljmu.ac.uk, d.paraskevadakis@aol.co.uk).

Alan BURY is with the Logistics, Offshore and Marine Research Institute (LOOM) at the School of Engineering and Maritime Operations in Liverpool John Moores University. He also sits on the overview and scrutiny committee for the Association of Greater Manchester Authorities (AGMA). Formerly an officer in the Merchant Navy and a consultant on infrastructure projects. He is now a Lecturer in Maritime Operations and also a PhD candidate with current research interests in modal choice and North West England's Atlantic Gateway (email: a.bury@ljmu.ac.uk).

Prof. Jin WANG is the director of the Logistics, Offshore and Marine Research Institute (LOOM) at the School of Engineering and Maritime Operations in Liverpool John Moores University. Prof. Wang specializes in design and operation of maritime engineering systems such as ships, offshore installations and port terminals (email: j.wang@ljmu.ac.uk).

Dr. Jun REN is with the Logistics, Offshore and Marine Research Institute (LOOM) at the School of Engineering and Maritime Operations in Liverpool John Moores University and is a Reader in Logistics and Supply Chain Management (j.ren@ljmu.ac.uk).

Dr. Stephen BONSALL is with the Logistics, Offshore and Marine Research Institute (LOOM) at the School of Engineering and Maritime Operations in Liverpool John Moores University and is a Senior Lecturer in Maritime Operations (s.bonsall@ljmu.ac.uk).

Prof. Ian JENKINSON is the director of the School of Engineering and Maritime Operations in Liverpool John Moores University. He has an active interest in supporting manufacturing in the region, and has developed strategic links to support training and applied research in the engineering and maritime sectors (email: i.d.jenkinson@ljmu.ac.uk).