

Pathways for Transition to E-mobility and Sustainable Public Transport in Nepal: A Case Analysis and Review of Best Practices

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The aim of the presentation is to present and analyse best practices in e-mobility and sustainable public transport around the world. The case-studies are located in United Kingdom, Netherlands and China, they will be utilised to suggest a suitable roadmap for just transition towards e-mobility and sustainable public transport in Nepal.

The targeted audience are the professionals working in the transportation sector from the Government as well as Private sectors in Nepal, International Financing Institutions and development partners. The two case-studies will report on the present situation of e-mobility in three leading places London, Amsterdam and Shenzhen. In Amsterdam, the successful role-out of electric car-sharing programmes will be examined, while in Shenzhen the role-out of electric buses. London is setting up a new ambitious programme relating to electric vehicle charging It will outline the key aspects of their success in terms of policy, institutional, technical and financial aspects. Then, as per the governance structure, act, policies, plans and private sector context, it will propose suitable suggestions for new policy proposals in Nepal.

Nepal is heavily dependent on fossil fuels used by vehicles which run on internal combustion engines. Fossil fuel is a significant part of the country's imports while the export of commodities from Nepal is negligible in comparison to total import. This has been causing a huge trade deficit and is worrisome to the nation's economy. On the other hand, hydro-electricity, which is a clean energy source, generated from Nepalese rivers, currently has more supplies than the demand. In future, the surplus is going to increase as more hydropower projects are under planning or construction. So, the shift to e-mobility is not only an option, but a necessity and it makes sense from an economic perspective. As a part of this transition, it will be wise to incorporate integrated infrastructure, improved Institutional as well as regulatory mechanism, road safety, gender and differently abled friendly as well as environmental components to the Public Transport system.

The methodology used for this paper is background research and literature review on three mini case-studies. Then, based on the secondary data available from the present Nepalese context,

modelling on financial feasibility and positive externalities will be done for various scenarios. The main outcomes of this article will be the lessons learned from the two case-studies transferred to the Nepalese context for a successful roll-out of its new e-mobility and sustainable public transport programme.

A key conclusion may be the similarities in opportunities and challenges in the transition towards e-mobility and sustainable public transport in different contexts. With a wealth of experience in e-mobility and sustainable public transport, London, Amsterdam and Shenzhen could most likely provide valuable insights to the Nepalese context for a successful sustainable shift, while at the same time the Nepalese experience might enable further innovations and peer-learning opportunities in return.