Electric vehicle safety sri lanka

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As Sri Lanka stands at the cusp of a transformative shift towards electric mobility, the journey ahead is promising yet fraught with challenges. The emergence of electric vehicles (EVs) heralds a new era in transportation that promises significant environmental benefits and a potential reduction in the nation"s dependence on fossil fuels. However, fully realizing the potential of EVs in Sri Lanka requires navigating a complex landscape of technical, economic, and infrastructural hurdles.

This article, authored by Prof. H. Niles Perera from the Department of Transport Management and Logistics Engineering, University of Moratuwa, delves into the intricate dynamics of the EV supply chain and examines the multifaceted opportunities and obstacles that shape the path to a sustainable and efficient electric mobility future in Sri Lanka. From the intricacies of developing a robust charging network to the governmental policies needed to stimulate adoption and the social implications of this shift, we explore the essential elements that will define Sri Lanka"s journey towards an electrified transportation system.

Mobility has been a linchpin in global economic activity ever since the internal combustion engine (ICE) was invented in the late 1800s. Fossil fuel has been the undoubted source that empowers mobility for over a century, but the depletion of fossil fuel as well as the environmental concerns raised by its emissions, has given rise to a shift towards exploring how "new energy" such as electricity, hydrogen, etc. can power our mobility needs as the world grapples to meet the covenants of the Paris Climate Agreement and ensure that the global temperature increase does not exceed agreed thresholds. Out of these energy sources, electric vehicles (EVs) have been the most effective so far, with the user base growing steadily. EVs offer a very reliable and cost-effective mobility solution.

Q: Considering the current economic landscape, why should individuals adopt electric vehicles?

One of the primary advantages of EV usage is its cost-effectiveness. Even though many Sri Lankans are reluctant to adopt EVs due to various reasons, it offers a smooth driving experience with minimal maintenance. Furthermore, it has the advantage of being environmentally friendly.

Given that many major automakers are setting targets to cease ICE production within the next five to ten years, together with the continuous investments in EV supply chains indicates that EVs (and hybrid vehicles) would continue to gain traction in the vehicle market.

Furthermore, growing tensions on multiple fronts in the Middle East has given rise to an increase in fuel prices, if the situation persists, it makes economic sense in the long run to invest in an EV.

Q: What is the EV eco system and how does is affect Sri Lankan consumers?

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An EV is comparatively less complex than an ICE vehicle with less than 20 moving parts within them. The centerpiece of any EV is its battery. Especially, with new age manufacturers like global giant BYD who has pushed the industry to a new era with its innovative Blade Battery, which is far superior and safer compared to the existing batteries available on the market today.

The EV eco system refers to the network that connects all the stakeholders together into an effective streamlined platform. The supply chain is vital to ensure the smooth operability of EVs. The EV supply chain requires a reliable charging network, technicians and service providers who can maintain and repair EVs. It also requires cheaper electricity to support transition and adoption, this is probably a considerable challenge in Sri Lanka given the high electricity prices which aren"t projected to come down in the near future. Even though the cost of electricity is high, the cost of energy for an EV is still lower when compared with an ICE vehicle, for which the cost of energy as well as vehicle maintenance costs add up.

One should also appreciate the global players in the supply chain. Apart from lower energy costs for an EV another reason to switch from ICE is its environmental benefits. However, these benefits must be assessed across the lifecycle. This implies how the vehicles, their components, and raw materials are sourced. More importantly, measures need to be put in place to manage the life cycle of batteries, its recycling and disposal to ensure a truly environment friendly ecosystem.

Q: How can the government of Sri Lanka leverage electric mobility to reduce the country"s dependence on traditional fossil fuels?