



Partnering with the Private Sector towards a Future of Sustainable Transport

According to a recent inter-agency report, Sustainable Transport, Sustainable Development, sustainable transport means “the provision of services and infrastructure for the mobility of people and goods in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts.” Shifting towards such transport system is a complex undertaking. It requires bold investment, smart innovation, and above all, political will and partnerships that work.

The cross-cutting, cross-border nature of transport presents tremendous partnership opportunities, in which all actors in the public, private, domestic and international domains can come together to create common values, share market potentials, drive societal demands and undertake coherent policy actions. A growing body of research suggests that the current transport system need such collaborative endeavors in, among others, expanding affordable access to reliable mobility services for people and goods; accelerating the adoption of renewable energy and improving resource efficiency in production, service provision and customer use; engaging all stakeholders to improve travel safety and security; and informing government transport policies to help build and operate effective transportation infrastructure.

The optimal engagement of partners would be critical to address the aforementioned challenges. National governments play a central role in developing cooperation and partnership policies for advancing such agenda through conducive national sustainable development strategies, sectoral strategies and public investments, while laying out the legal and institutional frameworks for sustainable transport infrastructure system. Development partners, both from the North and the South, can enhance and scale up such efforts of national governments by providing financial and capacity support that is harmonized and aligned with the national priorities for sustainable transport as well as by engaging in knowledge-exchange and peer-learning.

In the current context of constrained government revenues, the slow upward trend of ODA and continued limited borrowing capacities of many developing countries, there is a wide recognition of an increasingly important role of the private sector, ranging from micro-enterprises to cooperatives to multinationals, in realizing sustainable mobility. In line with this growing awareness, according to the World Bank, transport projects continue to outpace energy projects, and now represent the largest recipient of public-private partnerships (PPP) project investment totaling \$25.8 billion¹.

Key messages

- » Governments should adapt their legal, policy and regulatory frameworks around decarbonizing transport and related sectors, by taking a more coherent approach in aligning public investments across national and sectoral strategic areas; incentivizing long-term investments of the private sector; granting fiscal space for local governments; and inviting grants, loans and technical cooperation of development partners.
- » Emerging transport services show some potential to advance sustainable transport agendas, while security risks and privacy concerns associated with the new technologies including big data ecosystem require robust legislative and regulatory frameworks which fully respect the privacy and other human rights of the public.
- » In partnering with Governments, the private sector can play a strategic role in developing viable financial models and instruments that encourage long-term private investments and capacity-building; supporting renewable fuel and low-carbon fuel standardization; inventing and marketing climate-responsive transport products and services; and developing sourcing strategies to decarbonize supply chains, among others.
- » It is critical for both Governments and the private sector to take into account the needs of countries with special concerns, including least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS), as well as of vulnerable groups, including the persons with disabilities, in order to enhance the connectivity, accessibility, disaster risk reduction and resilience of transport systems.
- » Documenting more evidence around post-COVID 19 transport measures can provide useful references in revamping transport systems. It is paramount, however, that governments and the private sector revisit such short-term policies with a view to ensuring that any emergency-based actions that may have had inadvertent negative consequences on sustainable development would not become permanent measures.

¹ Please see p. 63 of Inter-agency Report for Sustainable Transport, Sustainable Development (2021).

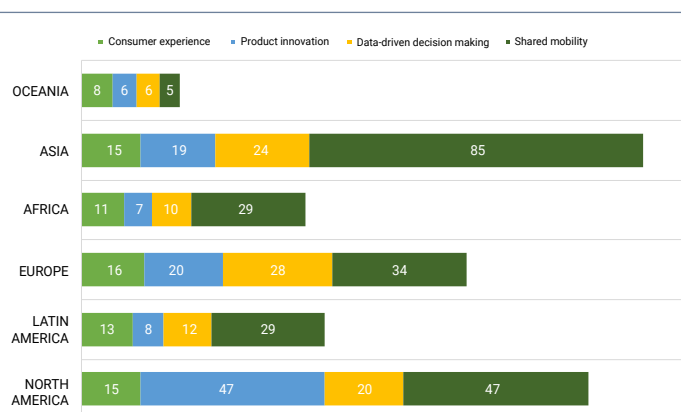
The transport sector is currently undergoing fundamental systemic changes, with its operating modes, financing modalities and leading actors rapidly diversifying. The present policy brief will focus on examining the state of play of the engagement of the private sector in response to the new realities facing the world of transport in three aspects: (i) emerging transport services driven by economic incentives and technologies, especially in road transport; (ii) the current trend of rethinking transport in the context of COVID-19 and climate change; and (iii) the growing recognition to perceive transport as an important means for social integration. This brief will conclude with concrete policy recommendations for the way forward.

EMERGING TRANSPORT SERVICES DRIVEN BY ECONOMIC INCENTIVES AND TECHNOLOGIES

If current trends continue, by 2050 cities will host approximately 70 % of the world’s population and produce 85 % of global economic output². Urban policy decisions can have far-reaching impacts across all the SDGs, including transportation-related issues, not just for urban populations but also for the surrounding peri-urban and rural areas.

Cities provide various opportunities for the private sector to innovate, develop and expand businesses. In particular, new transport services, which often employ new technologies, are currently emerging in a number of cities. Such services are geared towards optimizing the transportation options and cost-efficiency, with the vibrant engagement of the private sector, while their actual long-term impacts on the public transit systems and people, especially from the angles of social inequality and environmental sustainability, are yet to be examined.

Figure 1
Number of private homegrown providers of new transport services



Source: Author’s illustration based on Canales et. Al (2017)

2 Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development, (United Nations, New York, 2019)

According to Mckinsey³, these new services account for more than half of all new transport start-ups around the world and are provided in the areas including: shared transport in which access or ownership is shared among people financially or physically; product innovation geared towards better performance through data analysis; consumer experience that offers combined information on transportation options; and data-driven decision making that aggregates and analyzes data from multiple parts of transportation system for optimal management, planning, and operation.

Figure 1 shows the number of the private sector companies providing these new transport services across the continents.

More local governments from around the world are mobilizing partnerships with private sector companies that provide new modes of transport services. For instance, the Finnish city of Porvoo engaged with the companies (Kyyti Group, Vinka and Sitowise) in two pilot programmes. The first is a demand-responsive transport (DRT) service with a platform in which passengers can order different modes of trips through a mobile app. The second is a service which integrates trips and consumer groups, including a subsidized group, for optimal transport service delivery. The impact assessments of both pilots⁴ show improved access and accessibility for residents in rural areas and enhanced resource-efficiency in terms of occupancy rates of vehicles, distances driven, emissions generated and public expenditures required.

Using advanced tele-communications technologies, private sector companies are partnering with in a number of cities to also interlink transport infrastructure, network and pedestrians for improving traffic flows and road safety. For instance, the city of Seoul in the Republic of Korea is partnering with the KT Corporation to connect vehicles using a big data information system to enable the optimal operation of transit buses and to provide drivers and users the real time information on traffic flows (see Box 1). The success of Seoul’s “Owl” bus system primarily lies in the demand-driven utilization of technology and the customized policy measures for the vulnerable groups as well as the broad-based participation of the public throughout the pilot and scale-up phases of the project, including through a needs-assessment survey.

The recent working paper of the Coalition for Urban Transitions⁵ suggests that the cost-effective, energy-efficient and accessible features the new transport services have introduced into urban transportation systems might benefit the cities and their residents. Despite some positive anecdotal experiences partnering with the private sector, the security risks and privacy concerns associated with new technologies require special legislative and regulatory measures, including the harmonization of standards across different private sector partners and stakeholders. Also, the PPPs for building data ecosystem around transport require tremendous systemic improvements in transparency and accountability,

3 For more information, see: <https://www.mckinsey.com/-/media/mckinsey/business%20of/functions/sustainability/our%20insights/public%20private%20collaborations%20for%20transforming%20urban%20mobility/connected-urban-growth.pdf>

4 For more information, see: <https://etrr.springeropen.com/articles/10.1186/s12544-020-00443-5>

5 For more information, see: <http://newclimateeconomy.report/workingpapers/workingpaper/connected-urban-growth-public-private-collaborations-for-transforming-urban-mobility/>

Box 1

Partnership between City of Seoul and KT Corporation using big data technology

The Owl bus is intra-city night buses in Seoul that run exclusively from midnight to 5:00 am. The Seoul Metropolitan city partnering with KT Corporation designed the optimal night bus routes using big data. KT Corporation collected data on mobile phone call history and taxi rides across the city to visualize the moving pattern of citizens on a map. The information systems connected inside the vehicles enable comprehensive control of bus operations and efficient adjustment of intervals, while providing users and drivers with real time operation information.

The Owl Bus was designed to accommodate city's late-night commuters and lessen financial burdens on the economically disadvantaged, such as self-employed small business owners who often get to pay the late-night extra fare due to their typical livelihoods. Based on an on-site survey, the city government first decided to operate two pilot routes exclusively for an after-midnight service. The number of routes increased from two to nine after three months of operation, in order to respond to the increasing demand of citizens for that service. The partnerships amongst the city government, the private sector and the public have been enhanced throughout the implementation process. A manual was distributed to other local governments to benchmark. The Busan Metropolitan Government has already begun operating the late-night service.

Source: DESA Working Paper (ST/ESA/2020/DWP/169)

including in data-storing and data-sharing, especially in terms of fully respecting the principles of privacy, confidentiality and other human rights.

Rethinking transport in the context of COVID-19 and environmental sustainability

The COVID-19 and subsequent global lockdown policies have brought a number of changes in the world of transport⁶. Such changes, among others, include: massive decreasing demands for public transportation; increasing appetites for telecommuting, using modes of transportation with minimum human contact and e-commerce; and trials of intelligence transport systems. Evidence shows that a number of cities have seen sharp reductions in demands for public transport, including in Africa⁷. Based on the recent survey conducted with the sample of around 14, 000 people in Belgium, China, France, Japan and the United States, the research predicts that in post-COVID-19 era, the travel on foot or by bicycle will increase up to 57%; and the public transport will decrease by 43% (Rotellar-García, and González-Medrano, 2021).

These forecasts are already reflected in the performances of relevant businesses. The inter-agency report, Sustainable Transport, Sustainable Development, finds that the private micro-mobility and shared micro-mobility industries are set to increase

⁶ For more thorough analyses, refer to Inter-Agency Report for Sustainable Transport (esp. p.21-23).

⁷ For more information, see: https://slocat.net/wp-content/uploads/2020/05/SLOCAT_2020_COVID-19-Mobility-Analysis.pdf

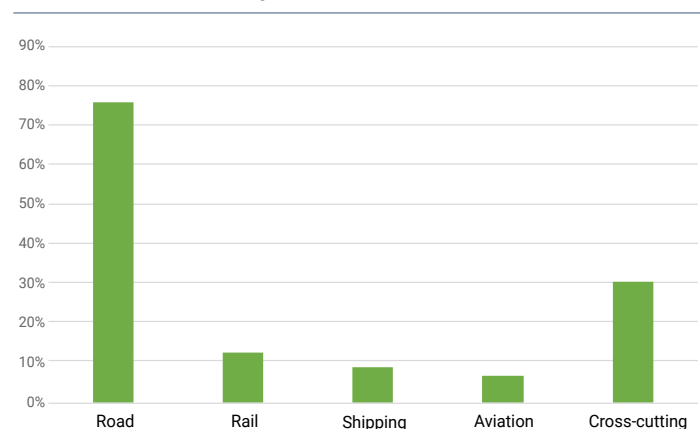
by 9% and 12%, respectively, suggesting the emerging opportunities and new actors in post-COVID-19 transport landscape. Some local governments are already engaging the private sector in their efforts to re-think and re-engineer the urban transport systems. For instance, the State Government of Sinaloa in Mexico engaged with the private sector to implement a hybrid transport model with 350 untethered bicycles and 50 stations set up to promote bicycles as a mode of daily transportation in the cities. In Rwanda, a local company, GuraRide, and the city of Kigali are partnering for a smart bike-share transport system.

Noting that the transport sector generates a quarter of all energy-related greenhouse gas (GHG) emissions, the Secretary-General, in his opening remarks to the Second Global Sustainable Transport Conference held in 2021, laid out the specific priorities for decarbonizing the transport sector, including phasing out the production of internal combustion engine vehicles by 2035 for leading manufacturing countries, and by 2040 for developing countries. In decarbonizing the transport sector, the post-COVID-19 circumstances seem to have provided some useful references. After rising steadily for decades, global carbon dioxide emissions fell by 6.4 per cent in 2020 due to COVID-19 lockdowns worldwide, while the emission level seemed already higher in December 2020 than in the same period in 2019 in a number of cities (Tollefson, 2021).

Documenting more evidence around post COVID-19 temporary mobility measures can provide useful references in revamping the transport system. More importantly, it is paramount for governments and the private sector to revisit such short-term policies with a view to ensuring that any of emergency-based actions that have had negative inadvertent consequences on sustainable development would not continue as permanent measures. Such evidence-building can also inform the policy community in re-engineering the economy of transport system in line with those of energy, trade and other closely related sectors, taking more integrated approach.

As the first concrete step for enhancing policy coherence, some countries began to include their sustainable transport commitments and targets under the Paris Agreement in their nationally determined contributions (NDCs). (see Figure 2).

Figure 2
Sub-areas of transport sector for domestic mitigation measures in nationally determined contributions



Source: UNFCC. Nationally determined contributions under the Paris agreement: synthesis report, addendum 2. FCCC/PA/CMA/2021/2/Add.2/

Box 2

Sustainable Freight Buyers Alliance (SFBA) to decarbonize the transport value chain

Freight currently represents approximately 8% of global CO₂ emissions and is a critical element for achieving global climate goals. In an effort to decarbonize freight transport by 2050, Smart Freight Centre, a global non-profit organization dedicated to sustainable freight transport, together with Business for Social Responsibility (BSR) and the World Economic Forum, have come together to launch the Sustainable Freight Buyers Alliance (SFBA). SFBA aims to accelerate the shift to zero carbon freight across all modes of transport, through consolidating and scaling up the demand signal with ambitious sustainable freight purchasing commitments for low and zero-carbon solutions. The aggregate commitments and purchasing actions of major freight buyers will advance the transport value chain decarbonization potential and help them reduce their own scope 3 emissions.

Source: SFBA (2021)

According to the recent report of the Secretary-General on nationally determined contributions under the Paris Agreement, improving energy efficiency is the area seeing the most of mitigation efforts when it comes to road transport.

As more governments adapt policies and regulations to promote energy-efficient transport, there are a number of areas where the private sector can bring concrete contributions. The private sector can support the government's standard-setting efforts for fuel efficiency in relevant category of mobility products. Such standardization assistance from companies can expedite product development to make technologies catch up and promote renewable energy solutions. Firms can also invest in R&D for low-carbon, energy efficient transport models including in developing country context and also add value by updating business models and sourcing strategies with a view to decarbonizing the supply chain (see Box 2).

In addition, the private banks, together with development finance institutions (DFIs), can offer much needed technical expertise in developing viable financial models and instruments, which encourage long-term investments and capacity-development for building sustainable transport systems. Such market-based tools may aim, among others, to design broader portfolio of investment options which incorporate carbon markets related to transport; to use renewable energy pricing models; and to make direct long-term investments in projects in support of sustainable transport.

One of the emerging issues which requires special attention in decarbonizing the road transport sector concerns the export of low-quality used cars from developed to developing countries. According to the recent report of the United Nations Environmental Programme, around 80% of 14 million used light-duty vehicles exported globally between 2015 and 2018 were imported to low- and middle-income countries and that most vehicles were between 16 and 20 years old, falling below EURO4 European Union vehicles emission standards

The same report notes that about two-thirds of the countries surveyed have 'weak' or 'very weak' regulatory policies to control the quality of imported used cars. To prevent imported used cars from causing air pollution and GHG emissions in recipient countries, it is essential for both exporting and importing country governments to cooperate closely and develop robust, coherent regulatory policies. Depending on the context, the optimal engagement of the private sector, including through technical and technological cooperation, can also bring efficiency gains. For example, the government of Mauritius recently introduced a CO₂-based tax regime for vehicles and is currently partnering with Intertek laying out an inspection and certification system for imported used cars (see Box 3 for more information). The related issue of accumulated scrapped vehicles also requires more attention from policy community and the private sector for innovative solutions (see Box 3 for good example).

Box 3

Partnership between Government of Mauritius and Intertek around used cars

Mauritius has successfully introduced a set of policy measures for enhancing the quality of used vehicles. Mauritius only allows used vehicles which are not older than three years. The country has set up a verification and inspection scheme for used vehicles. The Government of Mauritius partners with Intertek for pre-export inspection programme for used vehicles being exported to the country. The programme requires that imports of all used motor vehicles must be accompanied by an inspection certificate issued by Intertek. Mauritius also introduced a CO₂ based vehicle taxation scheme and recently has added the fiscal incentives for low- and no-emissions vehicles. As a result, the country has been seeing a major increase in the import of used (hybrid) electric vehicles lately.

Source: UNEP (2020)

Egypt's Vehicle Scrapping and Recycling Programme

In efforts to protect the environment from air pollution caused by the aging vehicle fleet, a new traffic law was adopted in 2008, mandating that fee-based transport vehicles, including taxis and minibuses, that are over 20 years of age would no longer be eligible for a new operating license or license renewal. However, the lack of a clear vehicle scrapping and disposal mechanism slowed the law's enforcement. To implement the law fairly and efficiently, the Government of Egypt launched a national Vehicle Scrapping and Recycling Program that enables taxi owners affected by the law to turn in their vehicles voluntarily for managed scrapping and recycling, in exchange for new vehicles. These new taxis were purchased from a number of pre-registered vehicle dealers at a discounted price and with financing facilities. By the end of 2018, around 45,000 taxis had been turned in, scrapped, and recycled in Cairo alone, resulting in emission reductions of approximately 350,000 tonnes.

Source: World Bank (2018)

TRANSPORT AS A MEANS FOR SOCIAL INTEGRATION AND COMMUNITY DEVELOPMENT

The transport system plays a critical role in not only facilitating economic activities and integration, but also in reducing inequalities and catalyzing social integration across the communities as some neighborhoods in cities as well as rural or suburban communities often have limited access to public transport. According to research, an estimated 700 million people in the Asia-Pacific region lack direct access to an all-season road⁸ and such lack of access is negatively impacting on poverty and social development. A number of cities and regions are working to solve this connectivity issue, often engaging the private sector companies, as connecting regions creates opportunities for local businesses and communities.

The City of Denver, for instance, developed a policy for improving connectivity to regional transportation district (RTD) services, which entails strategies for improving infrastructure for pedestrian, bicycle and micro-mobility as well as for engaging the private sector partners in its implementation efforts. In a suburban context, the City of Monrovia has recently launched the inclusive model of partnership with Lyft aimed at solving its unique “first-mile” and “last-mile” problems facing suburban residents including through offering discounted ride-share program (see Box 4). The City of Los Angeles and Via are also partnering to fill in the public service gaps to provide affordable micro-transit services, which feature free rides for low-income passengers to further promote inclusion and social integration. While such free or subsidized ride-hailing services are emerging, more evidence needs to be accumulated in order to better understand the equity impacts of such services on vulnerable groups, in terms of their access and accessibility to transport.

The second United Nations Sustainable Transport Conference highlighted that the private sector could also play strategic roles in enhancing the connectivity of transport systems, not only by supporting to build the necessary infrastructure, but also towards:

Box 4

Partnership between the City of Monrovia and Lyft on “GoMonrovia” programme

The City of Monrovia, together with Lyft, has launched the “GoMonrovia” programme in March 2018 to provide an innovative way to bridge first mile/last mile connections between transit stops and origin/destinations as well as to provide residents a more convenient, faster, personalized and expanded access to public transportation. Through this initiative, the public is able to access a Lyft ride anywhere in the GoMonrovia service area for discounted price (\$0.50). Contributing to simultaneously filling a transportation gap in first-last mile access, the programme won the Community Partnership Award from the International City/County Management Association (ICMA) in 2020.

Source: City of Monrovia (2018)

⁸ For more information about the issue of rural connectivity in Asia and the Pacific region, please see: https://www.unescap.org/sites/default/files/pre-ods/MCT3_7E_13%20Oct%2016.pdf

ensuring proper maintenance over their entire lifecycle; utilizing local resources; encouraging inclusive development process; and providing financial sustainability of the infrastructure.

In collaborating to enhance the connectivity and resilience of transport systems, it is vital for both governments and private sector counterparts to give extra attention to the concerns of marginalized populations. The special transport needs of vulnerable countries, including the least developed countries (LDCs), the landlocked developing countries (LLDCs) and the small island developing States (SIDS), should be taken into account and addressed systematically including through more harmonized global partnership.

RECOMMENDED ACTIONS FOR GOVERNMENT AND PRIVATE SECTOR

Governments should take a more coherent, integrated approach in adapting its legal, policy and regulatory frameworks around decarbonizing transport and related sectors (trade, energy, etc.), aligning the public investments across national and sectoral strategic areas; incentivizing the long-term investments of the private sector; granting the sufficient fiscal space for local governments; and inviting the policy-based grants, loans and technical cooperation of development partners.

Governments should engage the private sector from the outset in co-designing the PPP projects in support of sustainable transport and put in place effective regulatory and incentive mechanisms for a balanced allocation of risks and returns between public and private sectors. More stepped-up efforts are needed to ensure transparency and accountability of all domestic and international actors engaging in PPP. For instance, measures should be created to incentivize DFIs to publish their relevant contracts and to establish public complaint mechanisms.

The private sector companies can add significant value to government’s efforts for promoting energy-efficient, low-carbon transport, including through: (i) **offering technical inputs to develop viable financial models and instruments, which encourage long-term private investments** and capacity-development for building sustainable transport systems; (ii) **assisting standardization including for low-carbon fuels** in relevant category of transport products; (iii) **investing in R&D to develop low-carbon, energy-efficient transport products and services including in developing country context**; and (iv) **developing business models aimed at establishing low-carbon supply chain** and partnering with suppliers with high share of energy consumption from renewable sources, among others.

When ODA is used to leverage private investments, developing country governments should play a central role in decisions around the use of ODA to ensure that the blended finance is aligned with sustainable transport priorities of the country. It is essential for national governments to spell out country’s vision, needs and objectives for sustainable transport up front in their national development and sectoral policies and link them to country’s results-based budgeting and regulatory frameworks to effectively track and manage all partnership efforts in support of sustainable transport.

In order to **address the problem of low-quality used cars imported to developing countries and consequent air pollution**, it is critical for both exporting and importing country governments to collaborate closely and set coherent environmental standards and quality control mechanisms. Relevant private sector companies can support governments in building necessary technical and technological capacities to facilitate more evidence-based policy-making and evaluation.

Local governments should develop and facilitate public-private dialogue (PPD) mechanisms to inform the private sector of potential needs and returns on investments in the area of sustainable transport. The featured examples of partnerships show deliberate efforts of city governments and the private sector to engage the public including vulnerable groups, from needs to impact assessments, to promote demand-driven transport systems and services. It is critical to build evidence and document equity impacts of such demand-driven services and make information on findings easily accessible by the public.

It is critical for both Governments and the private sector to take into account the **needs of countries with special concerns**, including least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS), as well as of **vulnerable groups, including the persons with disabilities**, in order to enhance the connectivity, accessibility, disaster risk reduction and resilience of transport systems.

Documenting more evidence around post-COVID 19 transport measures can provide useful references for building sustainable transport system. It is paramount for governments and the private sector to revisit such policies with a view to ensuring that **none of emergency-based actions that have had negative inadvertent consequences on sustainable development would be fixated as permanent measures.**

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