



— GLOBAL SUSTAINABLE —
TRANSPORT CONFERENCE
— ASHGABAT, 26-27 NOVEMBER 2016 —



**Thematic discussion 8: Multi-modal sustainable transport and transit solutions:
connecting rail, maritime, road and air**
Sunday, 27 November, 3:00 – 4:00 P.M.

Lead entity: UNCTAD

Integrated multi-modal transport and transit systems that optimize the comparative advantages of each mode of transport are crucial in order to achieve sustainable transport of passengers and freight within and between countries. Road, rail, maritime, ferry and air transport, as well as non-motorized transport such as walking and cycling, need to be taken into account and emphasis should be placed on low-carbon-based energy modes of transport and an increased reliance on public transport systems. Sustainable multimodal transport and transit systems can provide an array of options for passenger and freight transport and successfully connect citizens and countries while supporting economic growth, social development and global trade.

Freight transport is a strategic economic sector that also enables international trade, underpins global supply chains, and allows access to markets by linking consumers and producers, importers and exporters. While maritime freight accounted for over 80% of global merchandise trade by volume and over 70 % by value in 2015, seamless door-to-door transport requires physical continuity of trade flows. This is achieved by integrating other modes of transport as well as associated transport and logistics services to ensure smooth movement of freight.

With freight transport growing in tandem with an expanding world economy and population growth, the sector is facing growing demands for greater efficiency while at the same time exerting additional pressure on the global natural resources, environment and climate. Freight transportation is a major consumer of oil and contributes significant shares to global greenhouse gas emissions (GHG) and air pollution. In view of the current transportation patterns and the projected growth in freight transport activity and fuel consumption, promoting sustainable freight transportation systems across all modes is crucial.

While the definitions of sustainable transport may vary and may promote any particular dimension such as the environment (green transport), society (inclusive transport) or the economy (efficient and competitive transport), sustainable transport involves among others, the availability of safe, socially acceptable, universally accessible, reliable, affordable, fuel-efficient, environmentally friendly, low-carbon, and climate-resilient, transport infrastructure services and operations.

Achieving sustainable transport has been recognized as a development objective since the 1992 Earth Summit and referred to in the outcomes of the United Nations Conference on Sustainable Development (RIO+20), UNCTAD conferences and in number of the General Assembly resolutions, and most importantly in the 2030 Agenda for Sustainable Development adopted in September 2015.

Various measures can help promote sustainable freight transport. These include , among others: measures affecting supply chain design, reshaping transport configurations and networks; switching to low carbon energy sources and technologies; improving vehicle and propulsion technology, planning and organizing routings and scheduling to reduce empty millage and optimizing operations, shifting travel to the most sustainable modes of transport, improving land use planning, enabling greater access to information and communication technology as well as ensuring harmonized regulatory frameworks for international transport. One measure increasingly considered as within the freight transport sustainability debate, is the use of intermodal/multimodal transport. Effectively linking and combining different modes of transport across the chain is emerging as an attractive sustainability option given its potential to achieve greater balance between economic, social and environmental aspects of freight transport. Containerisation, globalisation, developments in transportation systems, information technologies, and the potential to generate additional value, including environmental and social, have all contributed to creating new opportunities for greater intermodality/multimodality.

Intermodal/multimodal transport can support sustainability objectives by, inter alia, helping rationalise infrastructure; promoting the use of appropriate modes; improving service levels and logistics performance (e.g. speed, reliability, order fills), reducing costs (e.g. inventory and transport): enabling access to distant areas including rural by connecting rural freight transport infrastructure to markets, optimizing door-to-door transport. In addition, it can reduce energy consumption and alleviate carbon emissions.

Optimizing the sustainability dividend of intermodal/multimodal transport requires however that persistent underlying challenges be addressed. There is a need to address infrastructure capacity constraints; interoperability (vehicles, systems, technologies) and interconnection issues (e.g. transfer points, facilities, logistics services); cross modal boundaries including the coherence of regulatory frameworks across modes.¹ It also requires improving the management of existing capacity and assets at the supply chain level, not only at nodes; leveraging the gains from cross modal competition; and, enabling public-private partnerships (PPPs) not only as investment strategy to improve transport infrastructure and logistics but also as a means to access specialized skills, innovations, and new technologies associated with the development, operation and maintenance of transport infrastructure and services. Finally, cooperation among transport industry players and across modes, including in the form of partnerships, is essential to benefit from underlying synergies and complementarities as well as to ensure a more balanced trade-off between costs and benefits among supply chain players.

A special case requiring urgent attention relates to “the first and last mile” segment of a freight transport journey. Improving the efficiency of this segment of deliveries is crucial for the sustainability of freight transportation. In addition, the growth of home deliveries or deliveries within newly implemented networks of pick-up points (e.g. e-commerce and online shopping) dramatically alter the distribution patterns of economic activity and pose new and, as of yet, not fully understood logistics challenges for urban environments.² Urban freight is not well integrated into transport and economic

¹ IRU (2016). Transit Costs in East and Southern Africa. September 29.

² See “Sustainable Urban Mobility and Public Transport in UNECE Capitals”, UNECE, 2015, available at http://www.unece.org/fileadmin/DAM/trans/main/wp5/publications/Sustainable_Urban_Mobility_and_Public_Transport_FINAL.pdf

development strategies of cities especially in developing countries.³ There is a need to shift the view about the role of urban freight transport within the logistics chain and city development and consider ways in which intermodality/multimodality can improve the efficiency and performance of this freight activity, including through linkages to passenger transport as urban passenger and freight movements share finite infrastructure and urban space to satisfy the ever-increasing demand for transport.⁴

Intermodal/multimodal transport through transit transport corridors is of prime importance for landlocked developing countries (LLDCs) where transport costs represent an average of 77 per cent of the value of exports and where poor road infrastructure is responsible for 4 per cent of the transport costs against per cent in landlocked countries.⁵ Revenue losses from inefficient border procedures may exceed 5 per cent of GDP.⁶ In this respect, the superiority of international transit systems such as TIR over national bonds has been demonstrated. A recent study by the IRU revealed that the world's only universal customs transit system helped reduce trade costs in various transit transport corridors in Africa. Making the most efficient use of existing physical and regulatory infrastructure⁷ or developing new systems is important. This has been illustrated in the case of the Northern and Central transit and transport corridors in East Africa, for example. In this respects, efforts by the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) to integrate the three dimensions of sustainability in its strategic plans is worth noting.

Multimodal passenger transport is also essential especially for rural areas in particular in developing countries, where the 'last mile'—the distance from a transport hub—may, in fact, be a hundred miles or more. Communities in rural areas of developing countries are often completely disconnected from the major roads, rail lines, and public transport options that enable access to the economic and social activities and opportunities in cities. Addressing these circumstances will be needed in order to fulfil the 2030 Agenda for Sustainable Development promise to 'leave no one behind.' Information and communication technology (ICT) can also facilitate the implementation of intermodal solutions, as precise tracking systems ease coordination and the development of smart hubs and facilitate load optimization.

Therefore, development of sustainable freight and passenger transport, including through integrated port terminals, well planned airports and harmonized standards and regulations for efficient border crossings, will also enable economic growth. Estimates show that improvements in border administration, transport and communication infrastructure could see a global GDP increase by US\$2.6 trillion or 4.7 per cent.⁸

³ Gota, Sudhir (2015). A call to action on green freight in cities EcoMobility Dialogues. Technical Paper. September.

⁴ See ECE/TRANS/2015/1, "Rethinking Sustainable Urban Transport and Mobility to meet the challenges of a new era" available at http://www.unece.org/trans/events/2015/itc77_policy_segment.html

⁵ UNCTAD (2013). The Way to the Ocean - Transit corridors servicing the trade of landlocked developing countries. UNCTAD/DTL/TLB/2012/1 (http://unctad.org/en/PublicationsLibrary/dtlTlb2012d1_en.pdf).

⁶ See OECD Policy Paper No.150: "Trade costs – What have we learned?" A synthesis report

⁷ See United Nations Conventions and agreements on international transport at: <http://www.unece.org/trans/conventn/legalinst.html>

⁸ World Economic Forum, 2013: Enabling Trade – Valuing Growth Opportunities (www3.weforum.org/docs/WEF_SCT_EnablingTrade_Report_2013.pdf).

Possible questions for discussion:

1. What is the current state of play in terms of the sustainability of freight and passenger transport, including in the light of the SDGs and the 2030 Agenda for Sustainable Development including opportunities, obstacles and challenges?
2. What are the relevant experiences and measures/methods reflecting efforts to implement sustainable freight and passenger transport systems/intermodal/multimodal transport, including by governments and the private sector?
3. What are the enabling factors including financing, capacity-building, technology, research and cooperation and what are the good practices, successful experiences and opportunities associated with the wider dissemination and potential replication of sustainable freight transport systems/intermodal/multimodal transport in particular in developing countries?