Promoting the Development of Sustainable transportation

Topic overview, ECOSOC, MUNOG 2016

Sustainable transport refers to the broad subject of transport that is sustainable in the senses of social, environmental and climate impacts and the ability to, in the global scope, supply the source energy indefinitely. Components for evaluating sustainability include the particular vehicles used for road, water or air transport; the source of energy; and the infrastructure used to accommodate the transport (roads, railways, airways, waterways, canals and terminals).

Transport is directly and indirectly connected to all Millennium Development Goals (MDG). As such it is crucial that transportation is enabled and made accessible to everyone. Current transport situation on a global scope is not on a level that would allow us to meet all the MDG by 2030. Transport is a key enabler of societies to achieve wealth, economic development, quality of life, and the personal aspirations of its members. The goal of sustainable transport is to allow transport to play that role, while helping to reduce the total amount of motorized vehicle movement needed to attain those goals and make motorized vehicle movements that do occur less damaging on human and natural environments. Today’s transport sector is a main contributor to major societal problems. Including air pollution – the WHO is estimating that air pollution causes 3.7 million pre mature deaths per year – with transportation the biggest source in most cities, and climate change - the transport sector is set to increase

its contribution to global CO2 emissions from one quarter to one third - increasing more rapidly than any other sector. And 1.3 million people get killed on our roads every year – more than malaria and TB combined. Other issues include noise pollution, loss of biodiversity, inefficient use of energy, and congestion.

As such it is crucial for us to promote and expand the current usage of Sustainable Transport and to develop new Sustainable Transport Technologies (STT). When finding a resolution of how to level up our transport we have to think of near term and long term solutions. While bearing in mind that it has to help all the following SDGs:

3. Ensure healthy lives and promote well-being for all at all ages (Road Safety)	3.1 Ensure healthy lives and promote well-being for all at all ages (Road Safety)
7. Ensure access to affordable, reliable, sustainable and modern energy for all (Energy efficiency)	7.3 By 2030, double the global rate of improvement in energy efficiency
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Sustainable infrastructure)	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
11. Make cities and human settlements inclusive, safe, resilient and sustainable (Sustainable (urban) transport for all)	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
12. Ensure sustainable consumption and production patterns (Fuel subsidies)	12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

Table 1: Direct Transport Targets of the SDGs

2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Agricultural productivity)	2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
3. Ensure healthy lives and promote well-being for all at all ages (Air pollution)	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
6. Ensure availability and sustainable management of water and sanitation for all (Access to safe drinking water)	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
11. Make cities and human settlements inclusive, safe, resilient and sustainable (Sustainable cities)	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
12. Ensure sustainable consumption and production patterns (Food loss and waste)	12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
13. Take urgent action to combat climate change and its impacts	13.1 Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries 13.2 integrate climate change measures into national policies, strategies, and planning

Table 2: Indirect Transport Targets of the SDGs

When thinking of near term solutions the prime idea is to focus on already existing technologies that seem promising for widespread adoption to improve the sustainability of transport:

- Technology to reduce urban congestion, including traffic management systems such as Singapore/London/Stockholm style electronic road pricing and parking pricing systems;

- Vehicle safety systems - new ones include smart guidance systems to avoid accidents that are appearing on premium market cars;

- Increased uptake of fuel economy technologies via stronger policies. Existing cost-effective technologies widely in use today could double the efficiency of new cars in many countries yielding large reductions in fuel consumption and GHG emissions;

- Ensure wide availability of improved fuels to enable lower emission transport, including low sulphur diesel fuels. This will require refinery improvements needed to produce cleaner, lower-sulphur fuels. Cleaner fuels will have direct positive impacts on vehicle emissions and enable cleaner engine technology and after treatment equipment, including particulate filters, that will in turn yield deep reductions in particulates and other pollutant emissions;

- Stronger deployment of pollutant emission control technologies (enabled by related fuel quality improvements) are already in use in developed countries and mainly need strong policies including enforcement to speed deployment and effectiveness in the developing world;

- Data and ICT for better planning and operation of public transport systems as well as business vehicle fleets (cars and trucks);

- Roadmap for advanced no- and low-carbon vehicle and energy technologies. Electric, plug-in hybrid electric and fuel cell vehicles all produce low or zero tail pipe emissions 30 and potential very low GHG emissions if clean feed stocks are used. Although full market penetration of these vehicles will take many years, efforts must begin now, concurrent with efforts to decarbonize electricity grids and develop clean hydrogen production systems;

- Electric 2 and 3 wheelers represent a leapfrog opportunity with excellent marketability prospects in many countries. Internal combustion engine scooters are often high emitters so this is a priority area;

- Bike sharing and car sharing and/or ridesharing systems, including innovative operating systems to facilitate them;

• Deployment of advanced (cellulosic) biofuels with strong safeguards to ensure minimum adverse secondary environmental or social impacts.

As we can see there are already a lot of great technologies for sustainable transportation, nevertheless it is important that governments increase the incentives for companies to develop new technologies.
One example for such a new technology is Hyperloop. it is a transportation system that transports passengers in reduced-pressure tubes in which pressurized capsules ride on an air cushion at a speed of up to 1.000 km/h. The electricity will be provided by renewable energy sources and is therefore environment friendly. In this example the energy source is electricity, other renewable energy sources that should be mentioned as well are biofuel and hydrogen.

The positive impact on the environment is only one of the benefits. Sustainable transport systems make also a positive contribution to the social and economic sustainability of the communities they serve.

So how can the development of these technologies be promoted?
The government can subsidize companies that try to develop such technologies to create added value for the public.
Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognizes that different policies and measures will be required in different communities and opportunities to maximize sustainable transport solutions will vary from urban to rural areas.

Furthermore, local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development, including large scale facilities such as rail freight interchanges, roadside facilities for motorists or transport investment necessary to support strategies for the growth of ports, airports or other major generators of travel demand in their areas. The primary function of roadside facilities for motorists should be to support the safety and welfare of the road user.
Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.

It is also important to note that On 8 August 2014, United Nations Secretary-General Ban Ki-moon announced the membership of a High-level Advisory Group on Sustainable Transport to provide recommendations on sustainable transport actionable at global, national, local and sector levels.

The Advisory Group, established for a period of three years, will work with Governments, transport providers (aviation, marine, ferry, rail, road, and urban public transport), businesses, financial institutions, civil society and other stakeholders to promote sustainable transport systems and their integration into development strategies and policies, including in climate action. It will promote sustainable transport that is in line with inclusive and equitable growth, social development, protection of the global environment and ecosystems, and addressing climate change.

It is important to use all of the already existing NGOs and work groups. Try to avoid esablishing new ones, unless it is the only option to make your resolution efective.

To conclude, all actions of this years ECOSOC should be unanimous, concrete and eficient. We – Chairs – are looking forward to work with you!

Important Links

https://en.wikipedia.org/wiki/Sustainable_transport (Wiki)

https://sustainabledevelopment.un.org/topics/sustainabletransport (UN on sustainable development)

https://sustainabledevelopment.un.org/content/documents/7627Compiled%20issue%20briefs_final%20version.pdf (UN transport analysis)

https://sustainabledevelopment.un.org/?page=view&nr=1001&type=230&menu=2059 (High Level Advisory Group on Sustainable Transport to advance transport solutions to climate)