Session 14 Edgar E. Blanco MIT

Better logistics for cities. Better cities for logistics

The world is undergoing a wave of urban growth. The world population is expected to increase from 7.0 billion to 9.3 billion from 2011 to 2050. The percentage of inhabitants in urban areas is projected to grow from 78% to 86% and 47% to 64% in the more developed and less developed regions respectively. But urbanization and economic development go hand in hand. As cities grow, their economic activities and consumption patterns typically become larger, more intense and more complex. As one outcome of the urban development process, more goods need to be delivered into cities to satisfy consumption demands of growing urban populations.

Although urban freight vehicles make up a small share of all vehicle traffic, they generate a disproportionate share of externalities such as: congestion on local streets and highways, infrastructure damage, pollution, greenhouse gases, and noise. This is particularly acute in dense city areas in developing countries with limited or no space for road capacity expansion, land uses that have developed organically over time and are potentially incompatible with logistics demands.

The most common response to urban freight is to impose limits on size and hours of operation to freight vehicles. An extreme example is illustrated by the city of São Paulo, where an increased number of freight policies have been enacted over the last 20 years. Unfortunately, these policies are not effective in achieving reductions in congestion or CO_2 emissions. The main reason for the ineffectiveness of these policies has been the lack of understanding of both the unique aspects of urbanization in the region, the limited knowledge of sustainability drivers, and the complexity of the urban freight system.

As we continue in the path of urbanization, both private and public sector need to rethink how products and services are delivered to urban dwellers. From the private sector, there is an urgent need to develop "urban logisticians" that understand the close relationship between urban form, urban life, policies and last-mile operations. This will allow companies to develop better logistics for cities by designing better vehicles, efficient urban transactions, adequate driver training and innovative package and product designs that minimize logistics disruptions in the city. At the same time, public and private sector need to work closely to design better cities for logistics, starting with sharing data that will allow to answer questions as simple as how many vehicles are engaged in commercial activities, the number of deliveries or the freight patterns of establishments in the city. This information will be the basis to develop multistakeholder freight plans that will enable a combination of regulatory, voluntary and innovative policies in the city. More importantly, a common vision of the importance of urban freight in enabling quality of life is needed.

Urban population in developing countries will continue to grow. Urban freight will always need space for warehousing, cross-docking and last mile delivery activities. There is urgency and an opportunity to accelerate the adoption of innovative urban freight solutions to guarantee a harmonious development process that balances private and public interests. Cities, especially in the developing world, need to be creative in ways to increase utilization of existing infrastructure for freight (e.g. use parking lots for freight operations), leverage new transit

infrastructure (e.g. allow freight in bus lanes) or transform abandoned infrastructure (e.g. urban rail) to enable flow of goods and service in the cities.

References

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