

Transport Planning and Policy

Since transportation is such an important component of contemporary society, capable of producing significant benefits, yet giving rise to many negative externalities, appropriate policies need to be devised to maximize the benefits and minimize the inconveniences. At the same time the allocation, design and construction of such transport infrastructure and services must be subject to careful planning, both by public and private agencies. In this chapter a distinction is drawn between policies and planning. The major features of the policy and planning processes are examined. Because they both have to reflect the fundamental changes in society and contemporary issues and problems, policies and planning change. The changing orientation of public policy is described and the chapter goes on to explore the evolving nature of urban transport planning and intervention methods.

Transportation Modes

Transportation modes are an essential component of transport systems since they are the means by which mobility is supported. Geographers consider a wide range of modes that may be grouped into three broad categories based on the medium they exploit: land, water and air. Each mode has its own requirements and features, and is adapted to serve the specific demands of freight and passenger traffic. This gives rise to marked differences in the ways the modes are deployed and utilized in different parts of the world. Recently, there is a trend towards integrating the modes through intermodality and linking the modes ever more closely into production and distribution activities. At the same time, however, passenger and freight activity is becoming increasingly separated across most modes.

Transportation Terminals

All spatial flows, with the exception of personal vehicular and pedestrian trips, involve movements between terminals. With these two exceptions, all the transport modes require assembly and distribution of their traffic, both passenger and freight. For example, passengers have to go to bus terminals and airports first in order to reach their final destinations, and freight has to be consolidated at a port or a rail yard before onward shipment. Terminals are, therefore, essential links in transportation chains. The goal of this chapter is to examine the strong spatial and functional character of transport terminals. They occupy specific locations and they exert a strong influence over their surroundings. At the same time they perform specific economic functions and serve as foci for clusters of specialized services.

Urban Transportation

Urbanization has been one of the dominant contemporary processes as a growing share of the global population lives in cities. Considering this trend, urban transportation issues are of foremost importance to support the passengers and freight mobility requirements of large urban agglomerations. Transportation in urban areas is highly complex because of the modes involved, the multitude of origins and destinations, and the amount and variety of traffic. Traditionally, the focus of urban transportation has been on passengers as cities were viewed as locations of utmost human interactions with intricate traffic patterns linked to commuting, commercial transactions and leisure/cultural activities. However, cities are also locations of production, consumption and distribution, activities linked to movements of freight. Conceptually, the urban transport system is intricately linked with urban form and spatial structure. Urban transit is an important dimension of mobility, notably in high density areas.

Transport, Energy and Environment

Transportation systems are linked with a wide range of environmental considerations at all geographical scales, from the global to the local. The nature of these environmental impacts is related to the transport modes themselves, their energy supply systems, their emissions and the infrastructures over which they operate. While consuming large quantities of energy, especially oil, vehicles also emit numerous pollutants such as carbon dioxide, nitrogen oxide and noise and transport infrastructures have damaged many ecological systems. Several of the environmental impacts of transport systems have been externalized, implying that the benefits of mobility are realized by a few while the costs are assumed by the whole society. The spatial structure of economic activities, notably their land use, is also increasingly linked with environmental impacts.