

working there to use transport other than the car; it also includes an objective to locate major generators of travel in existing centres at locations well served by public transport and to improve conditions for walking and cycling. Many documents issuing from government and from bodies such as The Royal Commission on Environmental Pollution indicate that sustainable development is a prime policy objective. The latest Government documents, *Consultation Paper on PPS1, Creating Sustainable Communities and Community Involvement in Planning: The Government Objectives*, continue the strategy of placing sustainable development at the heart of Government policy (ODPM, 2004a; 2004b). The three key themes of the Government's planning policy are; sustainable development, spatial planning, and community involvement (*Planning*, 2nd April, 2004).

Transport and land use patterns are closely linked. The design of this link can exert a great influence on the level of urban sustainability. The number of trips taken in the motor car has increased over the last few decades, partly because of relatively low motoring costs, but also due to the inadequacy of public transport and because of the changes in land use patterns and the development of road infrastructure. The pattern of development and pattern of investment that favours the car has to change to one where urban form and its infrastructure encourages and supports non-motorized travel and more journeys by public transport, on foot or by bicycle. The urban form, which may make it possible for the behavioral changes that would achieve this objective, would maximize self-sufficiency in cities and their quarters. Movements between and within cities would be reduced if communities were largely self

sufficient in employment, environmental services, community, health and educational facilities, shopping and recreation. Such a settlement would be served by public transport with development arranged to support the public transport network. Each quarter of the city would be large enough to support a viable centre, within walking distance of its supporting population.

THE COMPACT CITY

The 'compact city' has been suggested as one way of achieving sustainable urban forms. In this type of city – which has its origins in continental Europe – compact, high-density urban structures of mixed land use are thought to promote walking and cycling as the main modes of movement for short journeys of one mile or less, while reducing considerably the need for longer journeys, which would be made by public transport. High densities are also associated with terrace development and therefore with energy-efficient buildings, and also with economies in the provision of infrastructure such as sewers, drain and water mains. High densities also have advantages for the installation of combined heat and power schemes. High-density urban development is usually associated with the rich townscapes of medieval European cities such as Venice, Florence or Montepulciano. With such a pedigree, the high-density model for sustainable urban form is endowed with a clear aesthetic appeal. This model of sustainable development, in general terms, is being strongly advocated in Continental Europe where it has a long and distinguished cultural history.

Interesting policies for creating the compact city were developed in Holland in

the 1990s. In 1991, there was a change in planning philosophy in Amsterdam which insisted that new urban developments of high density occur within or on the periphery of existing cities, thus reducing the need for mobility. The change in attitude to development involved classifying all proposed developments and redevelopments according to their transport mobility needs and their accessibility characteristics. The policy was specifically designed for urban areas and the location of the main generators of journeys: offices, shops, services, entertainment, recreation and cultural facilities, schools and health facilities. These policies steered developments to appropriate sites. Locations are given accessibility profiles and developments mobility profiles. The aim of the planning process is to match the profile of the developments' needs and the locations' qualities. Existing and potential urban sites were given one of three classifications:

- (1) Class A locations are served mainly by public transport, centred on a main railway station and served by a frequent inter-city service to other towns and cities. Stringent car parking standards are applied with the aim that no more than 10 to 20 per cent of commuters travel by car. The area should be pleasant and easy to use by pedestrians, cyclists, the disabled and those with special needs: it should also be well served by other means of public transport.
- (2) Class B locations are reasonably well served by good public transport, and have good accessibility from road and motorway interchanges. These areas may be centred on a suburban rail station, a

major metro station, a Sneltram (Light Rail) stop or the hub of bus services in a small town. Parking is mainly restricted to the needs of businesses which are moderately dependent on the car for their work.

- (3) Class C locations are sited close to motorway interchanges with no plans or requirements for public transport, whereas collective transport such as car and van pooling is encouraged. These locations are intended for business and other activities that have a low work intensity but are dependent on road freight.

The Amsterdam method remains of great interest, for its attempt to distribute activities throughout the urban area, based on a rational analysis of mobility requirements, indeed for the thorough way in which public transport is prioritized (Sturt, 1993).

The British version of the 'compact city' has been fully explored in *Towards an Urban Renaissance* (Urban Task Force, 1999). The main features of this version of the compact city have been mentioned in earlier chapters, but in summary it is based on a regime of densities higher than those normally found in a British suburb. However, these densities are not excessively high. Figure 10.1 illustrates three different ways in which densities of 150 persons per hectare can be accommodated. Figure 10.2 shows a cross-section through a medium-rise residential street block for this density of 150 persons, or 75 residential units per hectare. The compact city of mixed land uses with densities of about 150 persons per hectare supports a bus service and viable centres at the heart of neighbourhoods within a maximum