

# Residential Densities

*This policy paper is not intended to add to the long list of academic and technical studies of residential densities, although it draws particularly on recent work by the late Professor Michael Breheny of Reading University, TCPA Vice-Chairman, and on the deliberations of the Association's Housing and New Communities Task Team of which he was a member.*

## 1 Introduction

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1.1 For over 100 years the TCPA has campaigned for housing for all that meets human needs and aspirations. That categorically does not mean, however, that it promotes very low-density housing or that it has ever done so. From the early garden cities to the post-Second World War new towns, the TCPA's consistent ideal has been medium-density housing in planned settlements with a sense of community and good access to jobs, shops, schools, services, and transport. It has constantly resisted sprawling, unplanned, low-density 20th-century suburban development. It contrasts this with the more compact suburbs of earlier centuries, to which we need now to return.

## 2 Why does density matter?

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2.1 Five basic reasons have been cited over the 60 years since the Second World War to justify policies on residential densities. Some are sound; some – as we show later – are downright wrong.

2.2 The first, and earliest, was an accepted need to limit the density of new development to prevent the social overcrowding which was endemic in the older inner cities. The second, in the absence of established design policies and 'aesthetic controls', was a wish to limit the mass of new building on sites where over-development would be visually intrusive. The effect of these two policies was to impose *maximum density* limits, although the second failed in its design purpose. This was because density limits could be met even when tower blocks were built by the simple if unsightly architectural expedient of leaving a large part of the site undeveloped at the foot of the new building. In any case, these historic purposes have now been largely overtaken by public policies intended to enforce higher densities through adoption of *minimum density* levels.

2.3 Hence the third reason, which is to save undeveloped land from being built upon by insisting that new residential building densities elsewhere are above a certain level – the alleged justification being that putting more units on urban sites saves substantial amounts of countryside from development.

2.4 The fourth reason for ensuring high densities relates to sustainability, and in particular to reductions in travel distances so that more journeys can be made on foot and bicycle and public transport systems are more intensively used. Terraced housing and flats can also make more economical use of energy than the detached houses which might be found in areas of low residential density.

2.5 The fifth reason adduced for building at high densities is to create a more intense and varied urban environment, which, it is argued, is visually and socially exciting and better suited to the pursuit of a modern lifestyle.

## 3 Understanding density

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3.1 We need to ask whether these reasons are still valid, and how far they need re-interpreting. To do this, we need to understand that planners use different *measures of density*.

3.2 *Net* residential densities refer only to the land covered by the residential development, with any gardens and other spaces that are physically included in it, and usually half the width of any adjacent roads. *Gross* residential densities also include certain nearby non-residential

development, in order to reflect the amount of services and amenities such as schools and parks that are needed to support the housing element. Although the distinction between net and gross appears straightforward, in practice different inclusions in each category can complicate otherwise simple comparisons.

- 3.3 A third measure, *town* density, is also occasionally calculated, to indicate the overall gross residential density of an entire settlement or discrete urban area, with no part omitted. Use of this measure reveals that the new towns achieved much higher overall densities than most established villages, towns, and cities, simply because they were efficiently planned and laid out, with clear-cut boundaries.
- 3.4 In addition, various *units of density* can be counted per hectare when applying these measures. The units most commonly counted are *dwelling per hectare* (DPH), *habitable rooms per hectare* (HRPH), and *bed-spaces per hectare* (BPH). None of these unit counts is entirely satisfactory. Dwellings are a rigid measurement, indicating little about the population numbers they house. Habitable rooms and bed-spaces give a better impression of the potential carrying capacity of a residential development but cannot indicate the degree to which that potential is taken up. Pressures on internal space in the home often mean bed-spaces are converted to other uses.
- 3.5 Given these two variables, there are many possible ways of measuring residential density. The TCPA's preference would be to plan on the basis of people per hectare, since that measures what really matters. However, current Government policy uses dwellings per hectare net (DPH), and the TCPA is obliged to follow. The Government stipulates a target range for new building densities on plots of a hectare or more of between 30 and 50 DPH. The current average density of new building is only about 25 DPH.
- 3.6 The TCPA is aware, however, of the problems associated with use of such a measure to set planning standards. Not only will it fail to indicate population numbers, but because there is no distinction between small and large units (for example between four-bedroom houses and one-bedroom flats) the impression can easily be created of residential density being high or low in terms of dwelling units when no such conclusion is justified in terms of people living within the developed area. This is particularly important when the number of people involved is crucial to the sustainability of the development and the viability of, for example, a particular public transport service. It should also be noted that changes to the DPH standard often have no more than a marginal effect on the gross densities of existing settlements and urban areas, because of the high and mainly fixed proportion of non-residential land uses involved. Rigid application of the Government's standard measure to both small and large sites is rarely appropriate.

#### 4 TCPA views

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- 4.1 In setting out its views on residential density, the TCPA's position rests on two fundamental principles.
- 4.2 First, it is important to avoid a 'one policy fits all' approach. All the objectives of planning policy in relation to residential development cannot be achieved through a density standard, which is only one among a number of planning tools. The basic requirement is for a range of provision enabling real choice to meet individual needs and preferences over a reasonably lengthy period of time. A clear planning strategy may require adoption of a few density targets, but good design depends on a variety of densities and building types and creation of local community character capable of satisfying everyone. Density standards need to be set within the terms of policy guidance but also with regard to residents' preferences.
- 4.3 Second, in planning residential development, standards of neighbourhood space, local amenity, internal housing space, potential noise disturbance, and general environment and design should all be considered. Sustainable density policies should result from judgement of these matters, rather than determine them. People assess their home neighbourhoods by the standards of public and private amenity they provide, not by the density at which they are built.
- 4.4 The TCPA advocates the following policies covering the five reasons why densities matter set out in section 2.
- 4.5 On *overcrowding*, present high urban target densities do not necessarily lead to squalor of the kind experienced in the packed Victorian slum tenements. So in highly populated areas of large cities it may well be acceptable for small sites to be redeveloped in flats at levels as

high as the Government's suggested 50 DPH, or even above, if both location and townscape are properly taken into account. The TCPA would not necessarily object to that, as long as the standards of local amenities and services are high enough and the arrangements made for maintaining communal parts of dwellings and surrounding space are robust. It must also be clearly understood that such solutions are rarely appropriate outside city centres or away from major transport hubs.

- 4.6** Nevertheless, the TCPA is conscious that higher densities all too often have a negative overall effect, often summed up in the pejorative description 'town cramming'. Higher densities frequently lead to such undesirable outcomes as the omission or loss of urban open space, localised congestion, excessive noise, and a general loss of amenity such as light, sunshine, and a view of the sky. Suburban residents are jealous guardians of their open space, and can be especially resistant to infilling open space or gardens with flats. It is common for residents of pleasant suburbs to seek conservation area status, thereby escaping government pressure for infilling and intensification.
- 4.7** The TCPA takes the view that some densification with low-rise flats built in existing suburbs is acceptable as long as the overall houses-with-gardens character of an area is maintained, valuable natural habitats and well used allotments and open spaces are not lost, and sufficient off-street car parking can be provided without loss of green space. But it also insists that 'greening' programmes for those many urban areas currently lacking sufficient accessible green space are a high priority. Greening policies may involve planting on some brownfield sites that are at present allocated for development under the Government's drive to bring such sites back into use.
- 4.8** On *design*, the TCPA accepts the Government view that higher densities can often be accommodated satisfactorily through use of better, more imaginative building designs and innovative urban layouts. But it should be noted that space standards within and around the home are usually threatened by proposals to raise residential densities.
- 4.9** Space to live in and find recreation remains a prime concern of most existing and prospective householders. It is unacceptable that, on average, UK homes have the smallest usable floor space in the EU. Nevertheless, where smaller units are being planned, often for the new young single-person households with low incomes which are increasing in number, the TCPA advocates a much more adventurous approach to experimentation with communal facilities in a development.
- 4.10** There needs to be both firmer support from central government for local authorities which seek high design standards, and more emphasis on design of the public realm around new housing development. Design policy has to recognise that in the case of small sites it may be incongruous and unacceptable to force low-density housing into predominantly high-density city centres, and that the same is often true of high-density development proposed for low-density suburbs. A dwellings-per-hectare measure is useful as a guide to large-scale development, but will have little relevance to decisions about the density of small sites. In such cases, and depending on circumstances, very high densities can be achieved without adding to a community's sense of overcrowding.
- 4.11** The TCPA rejects *land-saving* arguments for building new housing at higher densities. In any meaningful sense land is not 'scarce'. Twice as much land as is needed for housing in the next 20 years has already been 'set aside' from the agricultural use once advanced as an important reason for protecting it from development. Nor is land which is required for housebuilding 'lost' so much as simply used for an essential human purpose.
- 4.12** The prospect is that to accommodate the growing demand for housing over the next two decades, the developed area in England will rise from some 10.5 per cent of the total to perhaps 12 per cent. This is perfectly justifiable, particularly as much agricultural land is far less ecologically rich than the gardens of the houses that might be built upon it. Even the counties around metropolitan London are only 16 per cent built over, and only 1 to 2 per cent of the remainder will be needed for dwellings over the next decade. There is no land shortage – just a scarcity of land carefully chosen through good planning processes for new housing at affordable prices.
- 4.13** Building homes at higher densities does not in itself save much land unless other ingredients of urban life are compromised, for example through smaller schools without playing fields, smaller parks, fewer allotments, and less off-street parking.
- 4.14** The *sustainability* case for higher residential densities has been made at length, especially in relation to transport. The TCPA accepts the arguments for shortening journey distances in general and for establishing concentrations of higher-density housing on or adjacent to stops on high-quality public transport routes to improve service viability. This is not, however, the only way of promoting the use of public transport, and affects only the small proportion of the population living in new development. Other policies such as congestion charging can encourage use of public transport by those who live further than the five-minute walk from a public transport stop that was once treated as a limit.
- 4.15** Lower-density housing areas can sustain public transport services if car *use* is discouraged by firm policies. However, the TCPA does not advocate putting obstacles in the way of car *ownership*, for example by omitting to provide off-street car-parking space for a high proportion of dwellings in new urban development, as it believes that this would give further stimulus to the continuing flight from major towns and cities.

**4.16** The *'lifestyle'* arguments for higher-density living relate particularly to younger people and young single-person households, who may be significantly less 'home-orientated' than other groups. The TCPA recognises that a small but active minority of people prefer to live in a flat without a garden to maintain, and that they should be catered for. Many of them thrive on noise, busy streets, and a late-night life, which city centres can often supply.

**4.17** A caveat has to be entered, however: this '24/7' city centre lifestyle is not compatible with the more tranquil and secure options preferred by most of the population. This is even true of many single-person households, who – research shows – prefer houses to flats, and a quieter lifestyle. The majority of households with children, given a choice, also reject this kind of urban environment, and will continue to flee from the cities unless urban regeneration policies meet their aspirations. In general, higher densities make higher environmental impacts through noise, pollution, and waste. These can be overcome only by adopting much higher environmental standards for new buildings, which will be more expensive to construct. It is vital that in large areas of our cities we build balanced urban communities designed around the needs of substantial numbers of families with young children.

## **5 Housing attitudes and the quality of life**

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**5.1** The TCPA makes no apology for arguing that individual choice must shape housing policies, and sees no reason why in most cases it should not be possible to accommodate people's preferences while meeting wider concerns. It is all a matter of good planning policy and good urban design. Survey after survey has shown that, for example:

- 80 per cent of people anticipating leaving their present home would prefer to move to a house with a garden;
- 75 per cent of single people want a garden;
- people living in less densely occupied areas express greater satisfaction with their area than those in areas of high residential density – they perceive more community spirit, have more friends locally, and have fewer complaints about their environment; and
- the most common complaint about urban areas is insufficient green space.

**5.2** It is clear that the suburban lifestyle and suburban house types, too often derided by people with little experience of them, satisfy the aspirations of ordinary people throughout the country, as they have throughout our history. The way forward is to recognise this fact, and to learn from experience – both from the classic age of British suburban development a century ago, and from good modern examples on the European continent – to build high-quality sustainable suburbs which are not overly car-dependent.

**5.3** Variety of provision remains the key to satisfaction. It is particularly important that the housing stock is not tailored to fit too closely to the household profile of any one moment in time. Again suburban housing has served well, with its flexible accommodation, capable of apparently perpetual adaptation and conversion between family house, flats, bedsits, and offices. As they change, they may house more or fewer people: a Victorian terrace house might house a family of eight; converted into flats it might house four one-person households; converted back into a modern family home it might also house four, but after the children have left only two – or even one.

## **6 Conclusion**

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**6.1** In short, the TCPA believes that in the matter of housing, environmental considerations do not necessarily justify over-riding public preferences. It takes the view that widespread imposition of very high residential densities (of, say, 60 dwellings per hectare or higher) would inflict high social, economic, and environmental costs on communities and create places that appeal only to a small minority of households. Nevertheless, it accepts that very low densities, meaning houses built at less than about 20 per hectare, generally fail to create a recognisably 'urban' context for community life. Variety of provision, between these extremes, is the way forward, with most homes designed to meet majority needs and aspirations, in the 30 to 40 DPH range.

**6.2** The TCPA is confident that if the stimulus of a single target figure is needed, one around 35 DPH would be acceptable, whether in a major greenfield development or in piecemeal infilling and redevelopment, without compromising the hopes and expectations of today's households. But it emphasises that many variations above and below this figure will have to be adopted as circumstances require.