



Eco-Towns: Living a Greener Future?

Submission by the **Optimum Population Trust** in response to the Department for Communities and Local Government consultation.

The Department is seeking views on:

- The way in which the eco-towns concept is being developed and the different potential benefits that an eco-town could offer;
- How particular features such as green space or innovative approaches to housing can best be developed in an eco-town;
- Preliminary views on the 15 locations going forward for further assessment.

The Department wants anyone with an interest in climate change, more sustainable living and our housing shortage to give their views, both on the programme as a whole and on the particular issues in individual locations, and on the approaches and technologies involved.

Closing date: **30 June 2008**

Executive Summary

The Optimum Population Trust (OPT) believes that current and projected global population levels will soon exhaust those natural resources that are non-renewable. Without significant measures to address population growth, human quality of life will deteriorate, regardless of what action is taken to deal with climate change and depletion of natural resources.

We conclude the Government should take urgent action to develop and implement a green population policy. By “green” we mean sufficient to protect the Earth and respect the right to survive of all its species. The policy will promote a voluntary reduction in the birth rate, seek balanced migration, and include a level of funding of family planning sufficient to enable women to control their own fertility. Population stabilisation and reduction will provide a foundation on which climate change and sustainability can more realistically be addressed. Managing population is the key to containing demand for shelter and other forms of consumption.

Consequently the OPT is concerned that the proposed development of new towns is not a sustainable activity, and may inadvertently perpetuate population growth. We therefore reject the role of new towns based upon the following fundamental concerns:

1. The UK is overcrowded and this is affecting quality of life and damaging the habitat of other species. We believe the human population has a primary role in the protection of biodiversity and ecology over and above human requirements. The protection of the countryside is fundamental to this. We

- believe new build in rural locations should not take priority over the improvement of existing settlements.
2. Focus on improvements to the sustainability of existing settlements is urgent if we are to meet our climate change objectives. Existing settlements comprise significant older building stock, upgrade of which is essential but remains largely unaddressed.
 3. New towns will not seriously address population and climate change issues - certainly not within the timescale that their urgency demands. The proposed developments will not achieve sufficiently high standards for housing; industry and commerce are likely to face even less stringent requirements.
 4. Impacts on biodiversity, landscape, water stress and flood risk will be serious.
 5. New settlements will exacerbate demand for land, food, water and energy. Rural land will increasingly be required for food production if population levels are not reduced.
 6. New towns are likely to generate significant extra traffic congestion and pollution.

We believe that new towns would not be required were the Government to put in place the appropriate green population, energy and sustainability policies. New towns are designed to promote economic growth; hence the competitive process to determine specific sites. This is contrary to the principles of restraint required to control and reduce population, address climate change and promote sustainability.

In fact OPT believes that new towns will achieve the very opposite of what is claimed. We do not distinguish new towns from the concept of eco-towns in that higher environmental standards should be anticipated for all new development in the light of climate change and recent Government statements of intent.

Current rising demand for housing should be achieved through redevelopment and/or extension of existing settlements, which will be less environmentally damaging and less energy intensive.

Introduction and Context

The Optimum Population Trust is the leading think tank in the UK concerned with the impact of population growth on the environment and aspires to “advance environmental protection by promoting policies in the United Kingdom ..., which will lead or contribute to the achievement of stable human population levels which allow environmental sustainability”.

Beliefs

The OPT defines an optimum population as a population size which is:

1. Environmentally sustainable in the long term.
2. Affords people a good quality of life.
3. Has adequate renewable and non-renewable resources necessary for its long-term survival.
4. Consumes or recycles them to ensure it will not compromise the long-term survival of its progeny.
5. Ensures adequate allowance for biodiversity throughout the UK.

Aims

The OPT campaigns for stabilisation and gradual decrease of population globally and in the UK. For the UK, our aims are that the population should be encouraged to stabilise and decrease by not less than 0.25% a year to an environmentally sustainable level. This will be achieved by bringing immigration into numerical balance with emigration, making greater efforts to reduce teenage pregnancies, and by encouraging couples to "Stop at Two" children.

Why the OPT is responding to this consultation

1. The OPT is concerned that the requirement for additional housing is partly due to the growing UK population.
2. Sustainability concerns consumption patterns relative to available resources. The root cause is growth/ change in population.

Failure to reduce population in the near future may lead to a population crash when fossil fuels, fresh water and other resources become insufficient to maintain existing or future population levels. Urban development has a direct impact on resource depletion (including land), and carbon emissions, and is likely to exacerbate them. Predicted growth in demand for housing results from a failure to address the serious issue of population growth. Given all these factors, we believe new towns are neither necessary nor desirable.

The DCLG consultation document¹ outlines three challenges designed to be met by eco-towns:

1. Climate change
2. The need for more sustainable living
3. The need to increase housing supply

One of the benefits envisaged from eco-towns is the innovation that competition will bring to the built-environment market place. Best practice has been examined by the Town and Country Planning Association (TCPA) but is yet to be fully elaborated². The Government should make clearer the standards to which eco-towns are to aspire.

Our responses to the challenges are detailed below, dealing with the key driver behind eco-towns (housing supply) first:

Minimising demand for housing

Housing demand is a function of factors such as birth rate, longevity, excess of immigration over emigration and household formation rates. All are increasing and are significant factors in the demand for housing. However, population growth, itself driven mainly by immigration, is by far the biggest factor in the predicted increase in demand for housing, accounting for at least 59 per cent, according to the Office for National Statistics. Changing age distribution accounts for 20 per cent while the trend towards smaller households accounts for only 17 per cent.

¹ CLG Eco-towns consultation document, pg.8 - 9

² CLG Eco-towns consultation document, pg.10

The ONS forecasts that the UK population will rise by 24 million to 85 million by 2081³ - an increase of nearly 40 per cent. By itself, this is a massively unsustainable figure, which will have devastating implications for the UK environment and quality of life. At the same time, however, average household size is just over 2 persons and declining.

The consequences are alarming. At projected household formation rates, a population of 85 million would require over 40 million homes - 15 million more than the current total of some 25 million. Since there are something over three million houses and flats in London, the UK will be faced in housing terms with building nearly five more Londons to cope with current population projections.

On the basis of the Government's current figures, the eco-towns programme will provide a maximum of fewer than 100,000 houses, and possibly, depending on which of the short-listed developments go ahead, many fewer. Set against the projected need for another 15 million, this is an insignificant – indeed, almost derisory – figure. In that sense the eco-towns programme is at best an irrelevance, at worst a distraction from the real task in hand - securing sustainable population levels. (It amounts to about less than one per cent - actually 0.65 per cent - of long-term housing need.)

We therefore urge the Government to minimise future demand by developing and implementing a clear “green” strategy for determining and achieving a sustainable level of population for the UK. England is by some measures the world's fourth most densely populated country (behind Bangladesh, South Korea and the Netherlands - figures exclude smaller island and city states). Without a population strategy, Government faces a long and hopeless rearguard action - reacting to the social and environmental problems resulting from uncontrolled population growth rather than managing for a sustainable future.

We believe the following must be addressed within the development of population policy:

Birth rate

The UK birth rate has been increasing in recent years. Around 40 per cent of pregnancies are unplanned⁴. The OPT welcomes Government initiatives to encourage improved access to emergency and long-term contraception, but believes that further measures are necessary. We recommend that all couples are encouraged to stop at two children. The benefits system should be reviewed with the aim of removing “perverse” subsidies to have babies while safeguarding families and children from poverty. Tax incentives that encourage women to have large families should be resisted.

Teenage pregnancy

The rate of teenage conception in the UK is the highest in the EU. Notwithstanding current Government programmes, there is still much to do in terms of sex and relationships education, provision of family planning and improving the life chances of disadvantaged teenagers. More detailed proposals can be found on our website at

<http://www.optimumpopulation.org/opt.more.famplan.uk.html>

³ ONS 2006-based projections

⁴ Ewriwoman poll 2004

Migration

OPT notes the recent House of Lords committee report that immigration has brought no overall benefit to the UK⁵. We welcome recent Government measures to restrict immigration. However, migration monitoring is weak⁶. Additionally, there is no control over intra-EU migration, and no target for net migration has been set. OPT urges the Government to improve monitoring, work with other EU Governments to further limit immigration to the EU, and set a target of zero net migration for the UK.

The case against eco-towns

Given that green policies on population and sustainability will significantly reduce demand for housing, the logic of new towns becomes even more questionable. We urge consideration of the following issues:

Green space and biodiversity

OPT believes the promotion of eco-towns as good for biodiversity is misguided and misleading. Examples of good practice in small-scale development which have protected and enhanced biodiversity are unlikely to be repeated on an urban scale. New towns will diminish biodiversity⁷ through their construction, through the requirement for additional roads, power lines, water supplies, sewerage, telecommunications, and through the excursions and activities of residents and users of the towns. These effects include increased flood risk and water, noise and light pollution, which are increasingly being shown to disrupt wildlife. In an age of growing ecological insecurity, land is a precious resource. New towns will use land likely to be needed in future for food and energy production. The proposal to include significant green space within the eco-towns, while understandable, will have the effect of reducing density and increasing the land take.

Housing density

It is difficult to extract data about housing density from the consultation document because of the disparate ways in which the figures have been provided for each of the proposed locations. None of the proposals indicate how much space will be required for public facilities such as schools, health centres, shopping centres, sports etc. Nevertheless, given the need to protect diminishing land resources and previous Government directives to increase residential density, it is fallacious for the consultation document to take a garden city such as Letchworth as an example of how a new town can combine “the health of the country with the comforts of the town”⁸ because this was designed at the beginning of the last century, at a time when the population of England was still within sustainable levels, without the concerns for housing density, land usage and zero carbon emissions that apply today.

Community building

OPT believes that the development of eco-towns will require a greater development of new community structures compared to adaptation and extension within or adjoining existing settlements.

⁵ House of Lords Economic Affairs Committee Economic Impact of Immigration statement, April 2008

⁶ Commons Treasury Committee Counting the Population HC183, May 2008

⁷ Natural England State of the Natural Environment 2008

⁸ Eco-towns Prospectus 2008

Jobs

OPT is concerned at the lack of detail on employment within the consultation document. There are references to harnessing “the employment potential of local areas” and “enabling links to existing clusters of employment within the sub-region”. These suggestions will involve travel to and from the new settlement.

We are, therefore, concerned that eco-towns will effectively be dormitory towns, generating new large-scale movements of people to and from their places of work. This will lead to extra car use and the need for upgrading of road infrastructure in the surrounding areas, with a significant impact on biodiversity, as has been demonstrated in the case of previous new town developments.

Travel

OPT welcomes aspirations for transport planning and a shift away from car-based transport, but considers them to be unrealistic for the proposed eco-town locations. As already stated, increased travel and energy use will be generated. The majority of people moving to the new locations to live will work outside the settlement, while many of the jobs created in the settlements will be taken by people who choose not to live there. The proposed size of the eco-towns suggests that they will not have sufficient infrastructure in terms of public services, shopping, entertainment and the like to prevent substantial amounts of travel to other settlements.

The Government already faces challenges in converting car use to public transport use in existing settlements with established public transport infrastructure and sufficient population density to warrant major investment. Eco-towns will not be likely to have rail as part of the public transport plan. Even taking into account the “anti-car” proposals outlined in the consultation document, private bus operators are unlikely to achieve the scale required in the relatively small eco-town settlements that will produce the sort of public transport service level necessary to change personal behaviour.

Reacting to climate change

Housing and related urban infrastructure are among the main sources of energy consumption. Energy focused design, energy efficiency and conservation measures can significantly reduce energy use. The first priority is always to conserve and then to produce only what is truly required in as sustainable a manner as possible. One way this might be achieved is the zero carbon energy policy proposed by the Centre for Alternative Technology⁹. A constituent part of a zero carbon energy plan must be to target major reductions in energy use.

We are concerned that the development of green energy within eco-towns is a bottom-up approach that will take years to come to fruition, and longer to influence policy and behaviour within the country as a whole. It will not come to fruition on a national scale within the 20-year timeline within which many activists believe climate change must be addressed¹⁰. Therefore, climate change and pressure on resources must be confronted within society as a whole if serious consequences are to be prevented.

⁹ <http://www.zerocarbonbritain.com/>

¹⁰ <http://www.zerocarbonbritain.com/>

Future climate change

Making communities more resilient to the effects of climate change is necessary. However, it is important to ensure that the causes of climate change are tackled and that efforts are not limited to adaptation. The construction of new settlements on previously undeveloped land exacerbates climate change. OPT urges the Government to recognise that population growth in this country and throughout the world serves only to multiply the impacts of climate change. Climate change cannot be addressed effectively without stabilising and ultimately decreasing population levels, nationally and globally.

Alternatives to new towns

Where new build property is proposed, opportunities within or adjoining existing settlements should be explored. This will minimise land take and enable existing infrastructure and services to be utilised. It is notable that the overseas examples included in the consultation document are all extensions/ redevelopments within existing cities: Vauban, a district of Freiburg; Hammarby, a formerly brownfield area within Stockholm; and Scharnhauser Park, Ostfildern, within the urban perimeter of Stuttgart. These may be good examples of eco-development, but are not new settlements on the eco-town model.

The primary focus should therefore be on improving existing settlements. Where there remain opportunities for infill through building on under-used ground within existing settlements, and redeveloping space-inefficient sites, these should be taken. Government, nationally and locally, should ensure the more efficient use of existing urban and peri-urban land while retaining allotments, public green space, urban wildlife habitats and “green infrastructure” within existing settlements. As part of this approach, efforts to bring vacant and under-used properties and buildings into the housing need equation must be intensified: one example is upper floor space above shops and offices.

Refurbishment

Sustainability standards in current building are being improved¹¹; however, we believe the Government should enforce much stricter sustainability standards on the building industry through a subsidised programme of retro-refurbishment of existing property, designed to improve energy efficiency dramatically. Refurbishment will engage property owners to action on a mass scale and address the huge volume of existing property that forms the bulk of housing stock.

We support abolishing VAT for building repair and refurbishment to encourage property improvement and extension and to give renovation and new build equal treatment.

Public services

Development of existing urban and rural settlements and thereby the extension or improvement of existing community facilities is likely to be lower cost both financially and environmentally than building new facilities in eco-towns. It will benefit existing communities and provide the opportunity for retro-fitting of sustainability measures.

¹¹ CABE Environmental Sustainability and the Built Environment

Travel

Significant car use and increased fossil-fuel consumption are likely to result from the development of new towns - ironically, at a time when the world faces the challenge of peak oil¹². Development in or adjoining existing settlements is a better way of reducing travel volume, enabling access to existing and broader public transport networks. The travel aspirations outlined in the consultation document are best addressed within existing settlements where they are most urgently needed.

Water

Housing and associated urban infrastructure are major users of finite water resources. Housing location also has a bearing on vulnerability to flood risk and the severity of flooding that might result. As a drier climate leads to increasing scarcity of water, competition for supplies will affect urban and rural areas alike. Water is the subject of major supply and consumer waste, and these should be tackled with more urgency by Government.

In relation to housing the OPT would expect Government to adopt a more prescriptive approach to water conservation. The standards and timelines proposed for housing stock in relation to the Code for Sustainable Homes do not require the maximum standard to be achieved quickly enough. If the maximum (Level 5/6) standard is not achieved at the outset on development that occurs before 2016, it is not likely to be achieved in the longer term. For non-household buildings, no standards have been specified.

Waste

The OPT would like to see design focus on minimal building materials resource use beyond that required for maximum energy efficiency. We would also urge that use of reclaimed and recycled materials be encouraged over and above the responsible sourcing requirements detailed within the Code for Sustainable Homes.

We would like to see the adoption of measures to reduce lifestyle and business consumption. In particular, these should be designed to prevent waste from consumer and industrial packaging. Providers/ retailers of products and services should be obliged to adopt less profligate practices. Consumers of waste should also be incentivised to reduce waste through imposition of charges. Opportunities to explore composting where re-use for energy production is not possible should be considered. Waste generated in eco-towns unless composted or used for energy production is not likely to be disposed of locally, and will be shipped out of the area at a consequent environmental cost.

Improvements to the built environment

OPT believes that improved sustainability of all housing is essential if environmental targets are to be met. Some 21 of 25 million homes in 2003 were built before 1980¹³ and most will still be in use in 2050¹⁴. We believe that Government should do more to improve the sustainability of existing housing. This would benefit both occupied property and under-utilised property (for example, the 672,000 homes that are empty¹⁵) which could be brought into use.

¹² <http://www.powerswitch.org.uk/>

¹³ Helweg-Larsen, T. and Bull, J., 2007

¹⁴ Boardman, B et al., 2005

¹⁵ Empty Homes Agency, 2007

OPT also believes that action to reduce fossil fuel consumption and speed up substitution by green forms of energy is urgently needed. This is not sufficiently served by experimentation at the “micro-level” of new towns. The necessity to reduce carbon emissions by at least 60 per cent by 2050¹⁶ is extremely challenging. It will require much more radical action than that so far announced. Therefore, green population, energy and sustainability policies which can be implemented at a national level are urgently required.

We believe that the proposed standards for new homes and other buildings within eco-towns are not rigorous enough, do not maximise potential within existing standards where they exist (Code for Sustainable Homes level 5/6), and, in setting level 3 as a minimum, carry the consequence that zero carbon status will not be achieved.

While building new homes to ambitious environmental standards might provide lessons for sustainability gains to existing housing stock, this is not sufficient reason for building new towns. There are already good examples within this country and Europe of sustainable homes, so the case for further experimentation through the building of new towns is weak.

In conclusion, we believe the rationale for eco-towns is based on a discredited “predict and provide” approach which is a wholly inappropriate way of dealing with major environmental challenges. Population growth is incontrovertibly the biggest factor behind rising housing demand and we believe the evidence is clear that there would be substantial public support for the sort of national population strategy we have outlined. Such a strategy might well make the whole idea of eco-towns redundant.

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¹⁶ Boardman, B et al., 2005