

8. Planning and Development

8.1 Introduction

This section of the Constraints Report describes the major planning and development constraints of the southern section of the study area, including a review of the Kilkenny and Carlow County Development Plans, and a socio-economic assessment of the major population centres. Much of this section is duplicated in Volume 1 (Northern Section) as it is appropriate that assessments are made in the context of the entire study area. Accompanying tables and figures referred to in the text are presented in Appendix B.

In addition to this, a detailed Planning Register / Application Search for the Kilkenny and Carlow Sections of the study area has been undertaken. A comprehensive wind-shield survey of the southern section of the study area has also been completed. This information has been compiled to update available mapping and aerial photography. It is not presented in this report, but will be used at the next phase, when identifying and assessing feasible route options for the scheme.

8.2 Study Methodology

The constraints study area comprises a broad band of countryside stretching between Paulstown and Waterford, covering the County Administrative areas of Carlow and Kilkenny. Only a small section of County Carlow is in the constraints area, with the bulk of the area in County Kilkenny.

The constraints study area encompasses Kilkenny City, Thomastown and a number of smaller villages, including Bennetsbridge, Goresbridge, Gowran, Inistiogue, Kilmacow, Knocktopher and Mullinavat. The area is characterised by extensive areas of relatively difficult terrain, including rugged topography and areas liable to flood.

The broad socio-economic context, including the planning framework, is dealt with in Sections 8.3 and 8.4 on a county basis. This also includes details of the principal centres of population. Section 8.5 examines the constraints study area on a District Electoral Division (DED) basis, which provides an overview of the rural areas in particular. The Census of Population is the principal sources for the analysis. The bibliography for this section is included with the overall report references.

8.3 County Carlow

The County Carlow Development Plan 1997 promotes the development and vitality of the county in a manner that reflects the needs of its present and future citizens. Carlow County Council aim to continue the programme of road realignment and strengthening work, which will ensure high quality links with Dublin, the ports and the Midlands.

The 1996 Census of Population recorded the population of County Carlow as 41,616 persons, an increase of 4.5 per cent on the figure of 39,820 persons recorded in 1981. Although the population of the county did not increase by a substantial figure during these intercensal periods, there has been significant household formation. This is particularly the case in Carlow town where there has been a considerable increase in the resident population commuting to the general Dublin area, using both public and private modes of transport. Population totals for each of the larger centres in the county are given in Table B1, Appendix B.

Population totals for the County and Carlow & Environs is given in Table 1, Appendix B. Population projections up to 2011, sourced from the Development Plan, are given in Table 2, Appendix B.

8.3.1 Carlow Town

The county town of Carlow is said to be the Celtic Centre of Ireland. Carlow is situated on the River Barrow and on the intersection of the N9 with the N80, linking Carlow with Portlaoise and Rosslare. Carlow town also has the advantage of the presence of a rail line station on the Dublin to Waterford route. Transportation infrastructure makes Carlow accessible to and from national ports and regional centres

The environs of Carlow have undergone a dramatic increase in population over the 10-year period rising by 91 per cent between 1981-1991. In 1996 the population of Carlow and Environs was 14,979 a growth of 17 per cent since 1981. The *Carlow County Development Plan 1997* envisages the bulk of the 2001 projected population increase for the County to be accommodated within Carlow Environs.

Within the *Carlow County Development Plan 1997* it is a policy to examine the feasibility of a national primary bypass of Carlow town. A by-pass route for the town is indicated on the development plan maps.

The development of a road system linking population and employment centres to the rest of the nation and also to the country's sea and air ports is an essential element in facilitating the development of Carlow. An efficient transport system plays a major role in influencing investment decisions, particularly in the case of industry where accessibility and centrality have become such important elements of manufacturing and distribution. The link with Dublin has improved with the realignment at Bolton Hill and the recent completion of the motorway, terminating at Kilcullen. The upgrading of the N9 to Euroroute status is considered important to the completion of the required access improvements. It is the policy of the Council to develop a safe and efficient road system for the county, which will cater for its development needs into the next century.

The portion of those employed in manufacturing has only marginally increased since the 1970s, when two multinational firms, Lapple (Ireland) Ltd. and Braun (Ireland) Ltd. were established. Other industry in the town includes the Greencore Sugar Company, Oglesby & Butler, Process Control and Automation. Industrial estates include Strawhall and Kernanstown.

The Carlow Institute of Technology has a student population 2500 (1997) estimated to rise to 4000 in 2000. St Patrick's College had a student population of 200 in 1997 offering adult education in third level qualifications and is included as an institution in the CAO/CAS application process.

8.3.2 Muinebheag

Muinebheag (formally Bagenalstown) is situated on the eastern bank of the River Barrow, approximately 16 kilometres south of Carlow town, 21 kilometres north-east of Kilkenny City and 100 kilometres from Dublin. Muinebheag acts as a local service centre. The town depends to a great extent on its rural hinterland. The town is accessed by road from the N9 at the Royal Oak junction and by rail from the Dublin and Waterford railway line.

Laid out in the 18th century on a grid system, the river and the rail line have constrained the western and eastern expansion of the town. The population decreased by 3 per cent between 1986 and 1996. The population was recorded in 1996 at 2,695 persons, 1.4 per cent increase since 1981. Although the *Carlow County Development Plan 1997* includes population projections for the county it does not allocate growth to specific locations.

Agriculture is important to the urban centre due to the high percentage of land in the vicinity, which is suitable for intensive farming. Muinebheag also has some employment based on the manufacturing of agricultural related machinery both for the home and export markets.

8.4 County Kilkenny

The county consists of a highly fertile central plain with uplands in the north-east, the north-west and the south. The land is well drained by its river network, the river Nore bisects the county and Kilkenny city on a north/south axis. The Rivers Barrow and Suir are natural boundaries to the east and south of the county respectively and their tidal estuaries converge at the extreme south-east of the county.

The development of an efficient strategic transport system is essential to the future economic social and physical development of the county. Included as an objective in the *Draft Kilkenny County Development Plan 2000* is the development of the central corridor route Waterford to Dublin to motorway dual carriageway standard.

The population of County Kilkenny was recorded at 75,336 persons in 1996, an increase of 6.3 per cent since the *1981 Census of Population*. With the exception of Kilkenny city all towns within the county have less than 2,000 persons. Some large towns, close to the county boundary include Waterford City, New Ross and Carrick-on-Suir. Population totals for each of the larger centres within the county are given in Table 3, Appendix B.

8.4.1 Kilkenny City

Kilkenny City is sited on a bend in the River Nore. Commonly referred to as the Medieval City, Kilkenny is a designated heritage town. Buildings constructed by the Normans during the twelfth and thirteenth century are evident throughout the urban area.

Almost equidistant from Dublin and Cork, Kilkenny is well served by national primary routes. Kilkenny has access to the sea via Belview Port on the Suir Estuary and via New Ross on the Barrow River. The Dublin to Waterford main line rail also services the City.

The population of Kilkenny City was 18,696 in 1996, an increase of 10.5 per cent since 1981. With the attraction of investment into the city, the population is set to increase considerably over the coming years.

Kilkenny, traditionally home to industries such as brewing and food processing, has now succeeded in attracting development in the financial and IT sectors. Designated an Information Age town, Kilkenny has begun to promote the information, communications and technology concepts among the community, business, education and government sectors.

8.4.2 Thomastown

Thomastown is situated approximately 16 kilometres south-west of Kilkenny City and 20 miles north-west of Waterford City. The regional route R700 linking Kilkenny to Rosslare via New Ross, and the N9 Dublin to Waterford National Primary Route, intersect at Thomastown. The town is also served by the Waterford – Dublin railway route via Kilkenny.

Thomastown is set within the Nore Valley mainly on the north bank of the river. The Nore's flood plain remains as grazing land on both the north-west and the south-east of the river. The extremes of topography to the south of the river have precluded substantial development, being either liable to flooding or too steep to develop. Growth has also been restricted due to the level of sanitary services available within the town. The Draft Kilkenny County Development Plan 2000 includes objectives to overcome these constraints.

Thomastown acted as an entrpot for Kilkenny City and the rich agricultural land of mid Kilkenny. Goods were moved by road from Kilkenny to Thomastown and from there by water to New Ross and Waterford Ports. The processing of the agricultural produce of the town's rural hinterland, in particular milling weaving and tanning, as been important to the town's prosperity.

The population of Thomastown increased by 7 per cent between 1981 and 1996 to 1,581 persons. The development plan for the area includes a by-pass road, which will connect the R700 and the N9, redirecting through traffic away from the town centre.

8.4.3 Castlecomer

The town of Castlecomer is located 19km north of Kilkenny City, where the Athy-Kilkenny Road crosses the Dinin River Valley. The N78 National Secondary Route links the town with Kilkenny City and with Athy and Dublin. The town is also directly linked with Ballyragget and with Abbeyleix.

Following the discovery of coal, Castlecomer was laid out in the 17th century as a model town. It acted as the principal market town for North Kilkenny and as an estate village for the Castlecomer Demesne of the coal mine owners. The loss of mining activity has faced the town with the challenge of establishing new sources of employment.

The population of Castlecomer was 1,380 persons in 1996, a decrease of 11 per cent since 1981. No population projections are stated for the town but *the Draft Kilkenny County Development Plan 2000* recognises that ample land is available for development within the town's development boundary.

8.5 Analysis by DED

A set of six indicators were recorded for each DED within the constraints study area, namely population density, population change, change in the total at work, percentage employed in manufacturing industries, unemployment rate, and percentage employed in the primary sector. Using a statistical formula specific to each indicator, each DED within the constraints study area was placed in a percentage band based on their performance. It should be noted that this information is based on the population that resided in each DED during the 1991 and 1996 census according to the CSO small area information.

8.5.1 Population Density – 1996

The constraints study area is divided into four population density bands (see Figure 3, Appendix B). The population density of each DED varies from greater than 150 persons per square kilometre to less than 25 persons per square kilometre.

The densely populated DEDs are located in and surrounding the towns of Kilkenny and Thomastown. The areas of lowest population density are generally in upland areas, relatively remote from the principal settlements.

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8.5.2 Percentage Population Change 1991 - 1996

Using this indicator, DEDs within the constraints study area are divided in five population percentage change bands ranging from -19.3 to 52.6 per cent (Figure 4, Appendix B).

The DEDs which experienced large population decline (-19.3 to 6%) are generally located in marginal rural areas and many of them correspond to areas of low population density.

While DEDs located around Carlow and Kilkenny experienced population increases in the 1991-96 intercensal period, some DEDs surrounding Athy and New Ross recorded a decline, indicating the relative weakness of these urban centres.

8.5.3 Percentage Change in Total at Work 1991-1996

The study area is divided into five bands of percentage change in the total population 'at work' between 1991 and 1996, varying from -16.2 to 72.6 per cent (Figure 5, Appendix B). It should be noted that these data refer to place of residence not place of work. The majority of DEDs fall within the 7.5 to 16 per cent change band and these are evenly dispersed across the study area.

In general, the northern section of the study area experienced higher levels of growth in the numbers at work, possibly reflecting the relative strength of urban centres in this area as well as the influence of commuting to the Dublin area.

In contrast, the southern section of the study area experienced relatively lower percentage changes in the total population 'at work' during the 1991 to 1996 period with a number of DEDs recording a modest 0 to 16 per cent increase.

The DEDs recording a decrease in numbers at work are mainly located in relatively remote and/or upland areas, and many of these correspond to DEDs with a weak demographic structure as identified on Figures 3 and 4, Appendix B.

8.5.4 Percentage Employed in Manufacturing Industries – 1996

Using this indicator the study area is divided into four categories (Figure 6, Appendix B). The percentage of those who are employed manufacturing industries varies from 3.3 to 35.9 per cent. The indicator shows where those employed in manufacturing industries reside. It does not indicate where the manufacturing industries are located.

The relative strength of the northern section of the study area is evident. Three concentrations may be identified in this area as follows: -

1. along the N78 from Kilcullen to Castlecomer;
2. between Castlecomer and Carlow;
3. along the N9 from Carlow to Bagenalstown. These reflect the traditional industrial base of Carlow and Athy and may also reflect the relative accessibility to work provided by the National Route system.

Within the southern section, the DEDs with the highest concentration of those employed in manufacturing industries concentrate in the Waterford area. The relatively low percentage of workers in manufacturing in the vicinity of Kilkenny is also apparent. This probably reflects the importance of services, including tourism, as an economic activity in Kilkenny as compared with manufacturing.

8.5.5 Percentage Unemployment rate – 1996

The unemployment rate is defined as unemployed plus 1st job seekers as a percentage of the total labour force. In 1996 in the study area, percentage unemployment rate fell into four bands ranging from 3.5 to 28.1 per cent (Figure 7, Appendix B).

The northern section recorded higher percentages in the rate of unemployment than the southern section. The unemployment rate in the northern section lies between 15.9 to 28.1 in the majority of DEDs. The northern section also contained a number of DEDs in the 9.7 to 15.9 per cent category. In some respects, this is surprising, given the employment opportunities in the Dublin area and the evidence of commuting provided by the other indicators. However, it may reflect the decline of traditional industries in the area.

Within the southern section the rate of unemployment is significantly lower with the majority DEDs in the two lower bands 3.5 to 9.7 per cent. Six DEDs within the southern section fell into the 15.9 to 22.1 per cent bands. None of the DEDs in the southern section fell into the highest percentage band.

8.5.6 Percentage at Work in Agriculture, Forestry and Fishing – 1996

This indicator shows the percentage of the DED population that were at work in the primary industries of agriculture, fishing or forestry in 1996 (Figure 8, Appendix B). The DEDs were divided into four bands ranging from 0.6 to 59.1 per cent. DEDs surrounding the main urban centres Athy, Carlow, Kilkenny and Waterford Environs fall into the 0.6-14.5 per cent band, the lowest band. The remaining DEDs portray an even distribution across the study area.

8.5.7 Rural Typology

A map of Rural Typology was developed as part of the study of the Irish Rural Structure and Gaeltacht Areas Study commissioned by the Spatial Planning Unit in the Department of the Environment. The study was carried out by Fitzpatrick Associates in association with NUI Maynooth and Brady Shipman Martin. From this work, it was possible to identify Urban DEDs, which are those DEDs aggregated to Urban Districts (as defined by the CSO), other DEDs with a population density in excess of 150 persons per square kilometre (following an OECD definition of urban regions) and DEDs which contained other urban centres of 1,500 population or greater. These DEDs were then excluded from further analysis.

Using Cluster Analysis on the remaining DEDs generated a spatial classification of the rural part of the study area (Figure 9, Appendix B). Using combinations of socio-economic variables, six clusters or types of rural areas were identified and these are described in Table 4, Appendix B.

The urban and peri-urban areas are generally densely populated and represent the locations of most economic activities, as well as the principal centres of population.

The remainder of the study area is generally made up of Cluster Areas 2 and 3 which are generally recognised as being strong agricultural areas.

8.6 Summary and Conclusions

The principal centres of population are also the most important locations for economic activity. The DEDs around these centres generally have characteristics that are strongly urban and, in effect, represent extensions of the urban areas.

The largest centre is Kilkenny with a population in 1996, including its environs, approaching 20,000. Kilkenny serves a wide rural hinterland, largely of good agricultural land, and thus has range of services and facilities significantly greater than its population would indicate. It is a heritage centre of national significance, reflected in the extent and quality of its historic buildings and streetscapes. This heritage is the foundation of a developing tourism business.

Carlow is the next largest centre and is an important manufacturing town, with an Institute of Technology. It also serves a substantial rural hinterland. Carlow has a current population in excess of 15,000.

Kilkenny and Carlow are the two principal centres to be served by the proposed new N9/N10 route.

The largest of the other centres is Athy, which is designated as a Secondary Development Centre in the *Strategic Planning Guidelines for the Greater Dublin Area*. In accordance with this designation, Athy will require much improved links to the Dublin Metropolitan Area in the future. If the proposed N9/N10 route cannot provide the road component of this link, alternative provision will have to be made to service Athy.

The rural part of the study area is characterised by relatively strong agricultural areas, into which the influence of the towns is extending, through urban generated housing. The northern part of the study area has a stronger manufacturing base and is more accessible to Dublin for employment, although it has a higher level of unemployment. The southern part is, in contrast, more rural, although it contains Kilkenny city, the economy of which is more focused on services than manufacturing.

The rural areas with the weaker socio-economic profile are generally those in upland and/or more remote areas, but the extent of these in the study area is not significant.

8.7 References

1. Carlow County Development Plan 1997
2. Carlow Urban District Development Plan 1998
3. Census of population of Ireland, 1981, 1986, 1991, 1996
4. Kildare County Development Plan 1998
5. Kilkenny County & City Development Plan 2000 (Draft)
6. Strategic Planning Guidelines for the Greater Dublin Area 1999
7. Various Web sites