

8. Socio-Economic Assessment

8.1 Introduction and Context

It is appropriate to carry out the socio-economic assessment for the entire corridor combining the northern and southern study areas. Much of the assessment is therefore included in both volumes of the Constraints Report. This chapter outlines the socio-economic profile of the study area. The broad context, including the planning framework, is dealt with in Sections 8.2 to 8.4 on a county basis. This also includes details of the principal centres of population. Section 8.5 examines the study area on a District Electoral Division (DED) basis, which provides an overview of the rural areas in particular. Conclusions are given in Section 8.6. A list of towns and villages over 200 persons in 1996 is given in Table 8.1. The Census of Population is the principal source for the analysis.

The study area comprises a broad band of countryside stretching between Kilcullen and Waterford. It covers four County administrative areas, Carlow, Kildare, Kilkenny and Laois, each with their own development plans. The study area is divided into two stages: Kilcullen to Paulstown and Paulstown to Waterford. The study area is shown in Appendix A, Figures A1 and A2.

The northern part of the study area (Figure A1) is currently served by the N9 National Primary Route, Dublin to Waterford. The southern part (Figure A2) starts where the N10 National Primary Route, Dublin to Kilkenny, splits from the N9, at Paulstown. The N10 continues on through Kilkenny and rejoins the N9 again before reaching Ballyhale in the south of the county. The study area is also served by main line rail, Dublin to Waterford, with stations in Kildare, Athy, Carlow, Muinebheag (formerly Bagenalstown), Kilkenny, Thomastown and Waterford.

Kilcullen to Paulstown

The area stretching from Kilcullen to Paulstown encompasses a number of centres of population of 700 persons and over. The principal settlements include Kildare, Athy, Castledermot in County Kildare; Carlow town and Muinebheag in County Carlow; and Castlecomer in County Kilkenny. The study area is predominantly rural in character and may be divided into two broad physical categories - the fertile Barrow Valley, through which much of the existing N9 National Primary Route, Dublin to Waterford, runs, and the Castlecomer Plateau which is confined to the south west of the area.

Paulstown to Waterford South

The study area stretching from Paulstown to Waterford South encompasses Kilkenny City, Thomastown and a number of smaller villages, including Bennetsbridge, Goresbridge, Gowran, Inistiogue, Kilmacow, Knocktopher and Mullinavat. The physical character of this stretch is distinctively different from the first stretch as it departs from the Barrow Valley and traverses the Nore floodplain. This area is characterised by extensive areas of relatively difficult terrain, including rugged topography and areas liable to flooding.

8.2 County Kildare

The most recent population figure for County Kildare was recorded in the 1996 *Census of Population* as 134,992 persons, a 29.6 per cent increase on the 1981 population figure of 104,122 persons. It is recognised that the population of the county since 1996 has experienced a further significant increase. This is mainly due to the influence of Dublin as a centre of employment and economic activity and which is giving rise to demands for housing in the county. Economic activity within the county, especially in the areas closely related to Dublin, has also been increasing. The majority of the growth has been confined to the northern portion of the county in centres such as Naas, Droichead Nua, Leixlip, Kilcock, Celbridge and Maynooth. In recent years, however, the commuter zone has begun to extend over the entire county having a significant impact on centres such as Castledermot and Athy. Population totals for each of the larger centres are given below:

Population of County Kildare, 1981-1996

Settlement	County	Pop 1981	Pop 1986	Pop 1991	Pop 1996	% change 1981-1986	% change 1986-1991	% change 1991-1996	% change 1981-1996
County	Kildare	104,122	116,247	122,656	134,992	11.6	5.5	10	29.6
Kildare	Kildare	4,042	4,268	4,196	4,278	5.6	-1.7	2.0	5.8
Kilcullen	Kildare	1,528	1,693	1,664	1,604	10.8	-1.7	-3.6	4.9
Athy	Kildare	5,565	5,449	5,204	5,306	-2.1	-4.5	2.0	-4.6
Castledermot	Kildare	805	792	741	733	-1.6	-6.4	-1.1	-8.9

Development in County Kildare is controlled by the *Kildare County Development Plan 1998*. As Kildare forms part of the Greater Dublin Area it broadly aligns its development strategy to the guidelines set out in the *Strategic Planning Guidelines for the Greater Dublin Area* published in 1999 and the subsequent Review, issued in April 2000. This regional strategy aims to achieve continued growth throughout the region in a sustainable manner setting guidelines for the provision of additional infrastructure in and between larger urban centres in order to cater for further increases in population over the next 10-15 years.

During the County Development Plan period there are proposals to continue to design and construct major road schemes, which will in effect by-pass all major towns. The current plan mentions the N9, National Primary Route, within the context of ongoing improvements but does not refer to a complete realignment. The specific objective relating to this proposes to improve the N9 from the Athy Road Interchange to the Carlow County Boundary, including the Moone-Timolin By Pass and the Castledermot By Pass.

Kildare Town

Kildare Town lies at the western edge of the Curragh, approximately 50 kilometres from Dublin. Kildare has a history stemming from the pre Christian period to the present day. Kildare town is located on the heavily trafficked national primary route N7 linking Dublin with Cork and Limerick. The town is also a strategic mainline rail transportation node linking Dublin with the west, south-west and south-east of the country.

Kildare Town acts as a service centre to the surrounding areas. Horse-breeding is the basis on which the economy of the town thrives. The Irish National Stud is a short distance outside the town centre.

Kildare is located within the Mid-East Region and is identified in the *Strategic Planning Guidelines for the Greater Dublin Area* as forming part of the Kildare - Monasterevin secondary development centre within the Dublin Hinterland Area. The strategy advocates the promotion of development within the centre to facilitate a high level of employment activity, high order shopping and a full range of social facilities. The longer-term objective will be to create a town, as self-sufficient as possible, with only limited commuting to the Metropolitan Dublin area. The town will require to be well linked to Dublin by good road and rail infrastructure to meet additional growth. With the growth of Dublin, Kildare town with its strategic location and position in terms of accessibility and transportation infrastructure, has become an increasingly desirable place to live.

In 1996 Kildare town had a total of 4,278 persons. This represents a 6 per cent increase since 1981. Kildare town was identified in the *1999 Kildare County Development Plan* as a primary growth centre. The Plan established a target population for Kildare town of 12,500 by 2006. This represents a planned population increase of almost 192 per cent over the 1996 population within 10 years.

Future plans for Kildare town aim to further its growth and promote its strategic location. The N7 National Primary Route, Dublin to Cork-Limerick, will ultimately by-pass the town and facilitate the future development of Kildare as a successful employment and residential centre.

Kilcullen

Located 44 kilometres from Dublin in the west of County Kildare, Kilcullen is a market/residential centre on the River Liffey. It is bypassed by the M9, Motorway Route. Kilcullen falls within the Mid-East Region and is identified in the *Strategic Planning Guidelines for the Greater Dublin Area* as forming part of the Naas – Droichead Nua – Kilcullen primary development centre outside the Dublin Metropolitan Area. The strategy advocates the promotion of development within the overall centre of Naas-Droichead Nua-Kilcullen to facilitate a high level of employment activity, high order shopping and a full range of social facilities. The longer-term objective will be to create a centre, as self-sufficient as possible, with

only limited commuting to the Dublin Metropolitan area. The three towns forming the centre will require to be well linked to Dublin by good transportation infrastructure to meet future development needs.

Kilcullen is identified in the *1999 Kildare County Development Plan* as a primary growth centre having a good base in manufacturing and service sector employment and is strategically located in the county. The Plan established a target population for Kilcullen of 3,800 by 2006. This represents a population increase of almost 136 per cent over the 1996 population of 1,604 persons in ten years.

The town is identified in the Plan as being a town of 'Special Townscape/Heritage Character'. It is a policy of the County Development Plan that the character of the centre be respected and that new development in the centre will be sympathetic to the towns vernacular.

The town, which is well served with community facilities, has a thriving business community and it is host to an important livestock mart. Local industry is principally located on the Naas road and the County Council plan the development of a further business/ industrial facility on a site close to the M9, Athy Interchange.

Athy

Athy, situated in the south-west of the County, is a market town at the convergence of the River Barrow and Grand Canal. The town developed from a 12th century Anglo-Norman settlement to an important military outpost on the border of the Pale. The first town charter dates from the 16th century and the town hall was constructed in the early 18th century. The completion of the Grand Canal in 1791 and arrival of the railway in 1846 enhanced the importance of the town as a commercial centre.

Athy is located on the intersection of the N78 and the R417 linking it with Dublin, Kilkenny, Carlow and Monasterevin. Athy is also served by the main line rail connecting Dublin with Waterford.

Athy is located within the Mid-East Region and is identified in the *Strategic Planning Guidelines for the Greater Dublin Area* as a secondary development centre outside the Dublin Metropolitan Area and states that "in the long term Athy, in particular, could become a major development centre". The strategy advocates the promotion of development within the centre to facilitate a high level of employment activity, high order shopping and a full range of social facilities. The longer-term objective will be to create a town, as self-sufficient as possible, with only limited commuting to the Metropolitan area. The town will require to be well linked to Dublin by good road and rail infrastructure to meet the additional growth.

Athy, an Urban District, was identified in the *1999 Kildare County Development Plan* as a primary growth centre. The plan foresees that there is ample room for future expansion of the town within its development boundary for the foreseeable future.

The population was 5,306 in 1996, this represented a decrease of 4.5 per cent since 1981. The Urban District Development Plan establishes a target population for Athy of 12,500 by 2006. This represents a planned population increase of almost 136 per cent over the 1996 population in the 10 years.

Castledermot

Castledermot is located on the N9 in the extreme south of County Kildare. The village lies 32 km from Kilcullen, 10 km from Carlow Town and 11 km from Athy. Castledermot is a service centre for the surrounding rural hinterland. Recently the town has developed as a commuter town for workers in Carlow town.

Castledermot is also located within the Mid-East Region and is identified in the *Strategic Planning Guidelines for the Greater Dublin Area* as being within the 'Strategic Green Belt Area'. The strategy advocated by the guidelines is to restrict development within these areas to meet local needs only. The guidelines call for strict control of development in green belt areas so as to secure a clear distinction between urban areas and rural areas.

Castledermot is identified in the *1999 Kildare County Development Plan* as being a secondary growth centre. The town is also identified in the Plan as being a town of 'Special Townscape/Heritage Character'.

The Development Plan establishes a target population for Castledermot of 2,150 by 2006. This represents a population increase of almost 200 per cent over the 1996 population in ten years. Over 500 new housing units will be required to accommodate this population increase.

8.3 County Carlow

Carlow is an inland county. The River Slaney flows through its eastern part, which is an extension of the granite area of County Wicklow. West of this lies the fertile limestone land of the Barrow valley, and beyond to the north-west is pleasant upland country.

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 below:

Population of County Carlow, 1981-1996

Settlement	County	Pop 1981	Pop 1986	Pop 1991	Pop 1996	% change 1981-1986	% change 1986-1991	% change 1991-1996	% change 1981-1996
County	Carlow	39820	40988	40942	41616	2.9	-0.1	1.6	4.5
Muinebheag & Environs	Carlow	2656	2788	2700	2695	5.0	-3.2	-0.2	1.4
Carlow & Environs	Carlow	12775	13090	14027	14979	2.5	7.2	6.8	17

The development plan includes a series of population projections for the county up to 2011 and these are given below:

County Carlow Population Projections

	1996	2001	2006	2011
Carlow County	41,616	42,387	42,974	43,582

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.

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 Laois

Laois is an inland county south west of County Kildare. It is one of the most strategically located counties in Ireland. Set in the heart of the country, its principal town, Portlaoise, is at the junction of the N7 and N8 National Primary Routes. Both of these roads are of major importance in Ireland's transportation network.

The centre of County Laois is dominated by large tracts of tillage and pasture land, bounded on the east by the Killeslin plateau. To the north, the Slieve Bloom Mountains give the County a rugged backdrop, and provide a centre for outdoor activities. The two principal rivers, the Nore and the Barrow, flow from north-west to south-east to drain almost the entire county.

Within the Laois County Development Plan 2000 it is the policy of the Council to ensure that the study corridors or roads whose routes have not been finalised are

kept free from development and to cooperate with adjacent County Councils and the National Roads Authority in implementing specific road proposals.

The 1996 Census of population recorded the population of County Laois as 52,945 persons, an increase of just 3 per cent on the 1981 figure of 51,171 persons. Population trends are given below:

Population, County Laois, 1981-1996

Settlement	County	Pop 1981	Pop 1986	Pop 1991	Pop 1996	% change 1981-1986	% change 1986-1991	% change 1991-1996	% change 1981-1996
<i>County</i>	Laois	51,171	53,284	52,314	52,945	4	-2	1	3
<i>Carlow Environs (Laois)</i>	Laois	369	726	794	870	97	9	10	136

The study area includes a portion of the County along its eastern boundary abutting Carlow, Kilkenny and Kildare. The principal centre within this part of the County is Carlow Environs, locally referred to as Graiguecullen.

Growth of Carlow Environs (including parts in the administrative areas of Laois and Carlow) has been significant over the past 20 years. The figures above show the population trends for the environs between 1981 and 1996. The environs have experienced a significant increase in population over the period 1981 to 1996 rising from 369 persons to 870 persons, a 136 percentage increase.

There is a significant quantity of land available for further development within Carlow Environs which will accommodate a substantial amount of additional residential development over the period of the plan. The population of the area rely on the urban area of Carlow Town for community facilities, commercial and recreational activity. It is a policy of Laois County Council to cooperate with Carlow County Council and Carlow Urban District Council in developing an integrated, comprehensive strategy for the area and providing the requisite level of services for the people resident therein. To achieve a good level of circulation into, out and around the development area the Council propose to construct the Carlow Northern Relief Road and ancillary road works.

8.5 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 below:

Population of County Kilkenny, 1981-1996

Settlement	County	Pop 1981	Pop 1986	Pop 1991	Pop 1996	% change 1981-1986	% change 1986-1991	% change 1991-1996	% change 1981-1996
<i>County</i>	Kilkenny	70,806	73,186	73,635	75,336	3.4	0.06	2.3	6.3
<i>Castlecomer-Donaguile</i>	Kilkenny	1548	1490	1396	1380	-3.7	-6.3	-1.1	-10.8
<i>Thomastown</i>	Kilkenny	1477	1465	1487	1581	-0.8	1.5	6.3	7
<i>Kilkenny & Environs</i>	Kilkenny	16919	17537	17669	18696	3.7	0.8	5.8	10.5

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 Eastern By Pass was designed to divert through traffic away from the constricted town centre. Phase 1 of the by pass connecting the Callan Road to the Dublin Road (N10) was completed during the mid 1980s. Within the *Kilkenny County Development Plan 1994* there is an objective to complete Stage II of the Kilkenny Eastern By Pass which will connect the Carlow Road to the Castlecomer Road. This objective is in the process of being realised.

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.

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 N9 the 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 entropot 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, was important to the town's prosperity.

The population of Thomastown increased by 7 per cent between 1981 and 1996 to 1581 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.

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 actively 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.

8.6 Analysis by District Electoral Divisions (DEDs)

A set of six indicators were recorded for each DED within the study area, these included population density, population change, change in the total at work, percentage employed in manufacturing industries, unemployment rate, percentage employed in the primary sector. Using a statistical formula specific to each indicator, each DED within the study area was placed in a percentage band based on their performance. It is important to note 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.

Population Density –1996

The study area is divided into four population density bands (Figure A3). 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 Kildare, Athy, Carlow, Muinebheag, Thomastown and Kilkenny. Each of these centres have DEDs with more than 100 persons per square kilometre. The majority of the other DEDs have lower population densities.

The areas of lowest population density are generally in upland areas, relatively remote from the principal settlements.

Percentage Population Change - 1991-1996

Using this indicator, DEDs within the study area are divided in five population percentage change bands ranging from -19.3 to 52.6 per cent (Figure A4). The pattern of population change represents an even distribution within both the northern and southern section of the study area. Only one DED in the entire study area experienced a population change between 52.5 to 52.6 per cent and this is within the environs of Waterford.

The DEDs which experienced large population decline (-19.3 to 6 per cent) 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.

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 A5). 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 A3 and A4.

Percentage Employed in Manufacturing Industries – 1996

Using this indicator the study area is divided into four categories (Figure A6). 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 - (1) along the N78 from Kilcullen to Castlecomer; (2) between Castlecomer and Carlow; and (3) along the N9 from Carlow to Muinebheag. 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.

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 A7).

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 per cent 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.

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 A8). 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.

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 A9). Using combinations of socio-economic variables, six clusters or types of rural areas were identified and these are described in Table 8.2.

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.

8.7 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.

8.8 Bibliography

The following sources of information have been consulted:

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

Table 8.1 : Towns and Villages with over 200 people in 1996.

	DED Name	County	Pop 1996
Paulstown	Shankill, Paulstown	Kilkenny	221
Clogh-Chatsworth	Clogh	Kilkenny	272
Mullinavat	Killahy, Farnoge	Kilkenny	275
Kernanstown	Carlow Rural, Johnstown	Carlow	277
Ballitore	Ballitore, Narraghmore	Kildare	295
Slieverue	Rathpatrick	Kilkenny	296
Tinriland	Kellistown	Carlow	331
Ballylinan	Ballylynan	Laois	406
Goresbridge	Goresbridge	Kilkenny	407
Kilberry	Kilberry, Bert	Kildare	466
Gowran	Gowran	Kilkenny	476
Suncroft	Ballysax West	Kildare	490
Leighlinbridge	Leighlinbridge	Carlow	508
Kilmacow	Ullid	Kilkenny	599
Bennettsbridge	Bennettsbridge, Danesfort, Outrath	Kilkenny	601
Moneenrow	Moneenroe, Clogh	Kilkenny	655
Castledermot	Castledermot, Graney	Kildare	733
Castlecomer-Donaguile	Castlecomer	Kilkenny	1380
Thomastown	Thomastown, Jerpoint Church	Kilkenny	1581
Kilcullen	Kilcullen, Carnalway	Kildare	1604
Muinebheag & Environs	Muinebheag Urban	Carlow	2695
Kildare	Kildare	Kildare	4278
Athy	Athy Urban District	Kildare	5306
Carlow & Environs	Carlow Urban District	Carlow	14979
Kilkenny & Environs	Kilkenny Municipal Borough	Kilkenny	18696

Table 8.2 : Cluster Area Types

<p>Cluster Area 1 <i>Peri urban Areas</i></p>	<p>These areas have relatively high average scores in components relating to dominance of non agricultural employment, socio economic profile and demographic viability. These are DEDs characterised by high population densities, advanced level of transition to a higher socio economic profile (higher proportions with advanced levels of education, larger shares of the workforce in professional services and commerce functions) and low reliance on agricultural employment. They are generally found in close proximity to urban centres and are particularly in evidence around the larger towns and the cities.</p>
<p>Cluster Area 2 <i>Very Strong Areas</i></p>	<p>High in components relating to strength of agricultural; sector, dominance of non agricultural employment and labour force participation. These areas are characterised by large farms, high levels of economic return and greater stability. DEDs assigned to this cluster also exhibit an above average level of transition to non-agricultural employment. There is evidence of generally favourable demographic structures where the effect of natural increase has been augmented by selective in-migration, leading to over average levels of growth in employment and population. However, the main difference between 1 and 2 is the higher percentage of population with relatively low levels of education, lower female participation rates, higher levels of employment in manufacturing and / or higher levels of unemployment. These areas are suggestive of present conditions in areas previously characterised by a strong rural industrial base linked to natural resources but it has been decline since the 1970s. Therefore these areas represent zones where the agricultural rural economy remains strong but there are weaknesses in the socio-economic profile which may in part be due to residential consequences of the restructuring of rural industrialisation.</p>
<p>Cluster Area 3 <i>Strong area adjusting to restrictions on agricultural output</i></p>	<p>Characterised by large farms, strong orientation towards dairying, younger farmers. The cluster represents those strong agricultural areas which have been relatively stable, but slower to make the transition to non agricultural activities.</p>
<p>Cluster Area 4 <i>Structurally weak area</i></p>	<p>Characterised by weak farm structure with elderly farmers on small farms producing low levels of output, with a significant decline in number of farms, low levels of employment in manufacturing or services and a below average level of self employment outside agriculture. These attributes have contributed to the very weak demographic profile based on an ageing population with relatively fewer households with young children.</p>

Cluster Area 5 <i>Very marginal rural areas</i>	These are mainly in peripheral locations. Here, the agriculture structures are weakest, and labour force participation rates are among the lowest which may reflect the age profile and the greater proportions of adults classified as either retired or in home duties. Many of these areas are also characterised by above average levels of unemployment.
Cluster Area 6 <i>High Amenity Diversified area</i>	These areas tend to have higher levels of self employment outside agriculture and higher levels of part-time work though the contribution of manufacturing is very weak. This is suggestive of a very high level of reliance on tourism, but also may be an indication of new residential and work place locational preference for often highly-educated professionals. In terms of demographics the cluster is weaker relative to other clusters with fewer younger persons and greater percentages of elderly people. The clusters consist of districts which may be described as consisting of new consumption space particularly for residents of the urban and peri-urban clusters and also for people abroad, many of whom have settled in these areas.