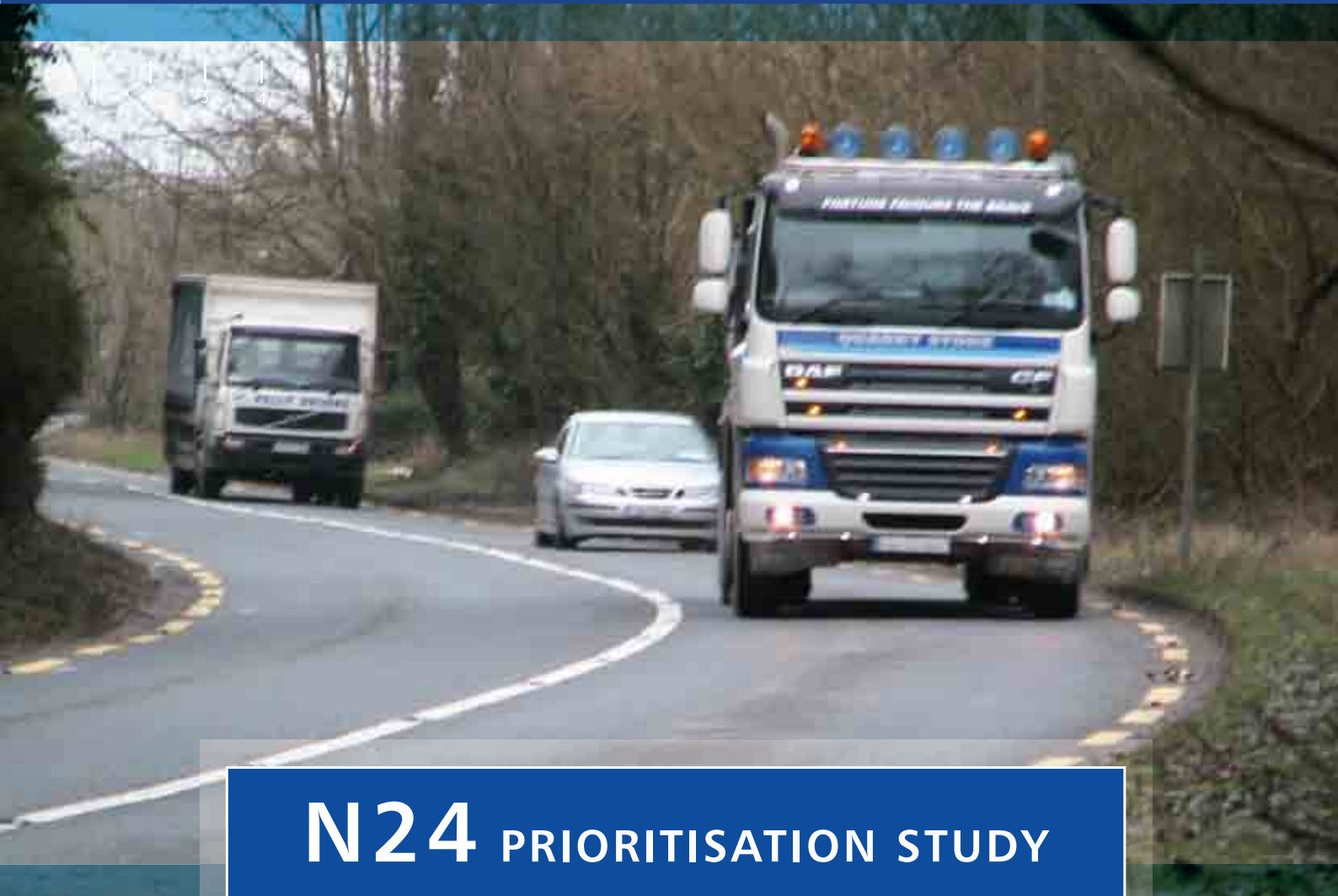




SOUTH-EAST REGIONAL AUTHORITY  
*ÚDARÁS RÉIGIÚNACH AN OIR-DHEISCIRT*



# N24 PRIORITISATION STUDY

**JUNE 2008**

# N24 Prioritisation Study

**JUNE 2008**



This study report was commissioned by the South-East Regional Authority in association with the Mid-West Regional Authority, Limerick City Council, Limerick County Council, Waterford City Council, Kilkenny County Council, South Tipperary County Council and Waterford County Council.

# FOREWORD

A world-class transport infrastructure, of which the public roads system forms an integral part, is crucial to the promotion of regional competitiveness and sustainable development. Regrettably, the South-East region is lagging behind on both.

Although Ireland has enjoyed sustained economic growth over the past decade, the South-East region has not achieved anything comparable. In fact, the region has declined when compared nationally and with other regions across a range of headline economic indicators. There are major transport infrastructure gaps existing in the region which have hindered the development and potential of the region, both economically and socially. Investments under successive National Development Plans (NDP) will improve the situation; nevertheless, certain critical issues remain.

The N24 National Primary Route forms the key east-west transport corridor for the region, linking the two 'Atlantic Gateway' cities of Waterford and Limerick. It serves almost 10% of the state's population and a number of significant market and service towns along the route, including Clonmel, Carrick-on-Suir, Tipperary and Cahir. The route, though, is clearly not of the standard that it should be. More worrying is the fact that the importance of the route has been downgraded by national policy-makers. Significantly, it does not form part of the Atlantic Road Corridor planned for major improvement under the NDP 2007-2013 and Transport 21.

It is against this background that the South-East Regional Authority, in association with the Mid-West Regional Authority and the six local authorities whose functional areas the route passes through, embarked upon the undertaking of the N24 Prioritisation Study. The Study clearly illustrates the undeniable case for the priority upgrading of the N24 Route in the National Roads Authority's post-2010 Roads Programme. The Study identifies the factors that make the compelling case for the prioritisation nationally of the N24 and the early delivery of the N24 road improvement schemes.

I wish to acknowledge the support and cooperation received by the South-East Regional Authority in this important process from all concerned. In particular, I wish to express thanks and appreciation to the regional and local authorities involved, the members of the steering committee and to the consultants, Colin Buchanan and Partners Limited, who provided advice and technical assistance. I also wish to thank the Director and staff of the Regional Authority for their work in bringing this project to a successful conclusion.

This Study is but the continuation of a process. We in the South-East Regional Authority will be working with our colleagues in the Mid-West and with the six local authorities to ensure that this issue receives the proper focus and attention by the Government, the Minister for Transport, the National Roads Authority and the Oireachtas members in both Regions.

I look forward to working with all of these in a spirit of cooperation and partnership to ensure that priority upgrading is given to the N24 Route.

Cllr. Paddy O'Callaghan

*Cathaoirleach*

**South-East Regional Authority**

**JUNE 2008**



# GLOSSARY OF TERMS

<b>AADT</b>	Annual Average Daily Traffic
<b>CBA</b>	Cost Benefit Analysis
<b>CPO</b>	Compulsory Purchase Order
<b>DEHLG</b>	Department of the Environment, Heritage & Local Government
<b>EIS</b>	Environmental Impact Statement
<b>GVA</b>	Gross Value Added
<b>HCV</b>	Heavy Commercial Vehicle
<b>NDP</b>	National Development Plan
<b>NRA</b>	National Roads Authority
<b>NSS</b>	National Spatial Strategy
<b>NUTS</b>	Nomenclature of Territorial Units for Statistics
<b>RAPID</b>	Revitalising Areas by Planning, Investment and Development
<b>RDO</b>	Regional Design Office
<b>TENS-T</b>	Trans European Networks of Transport



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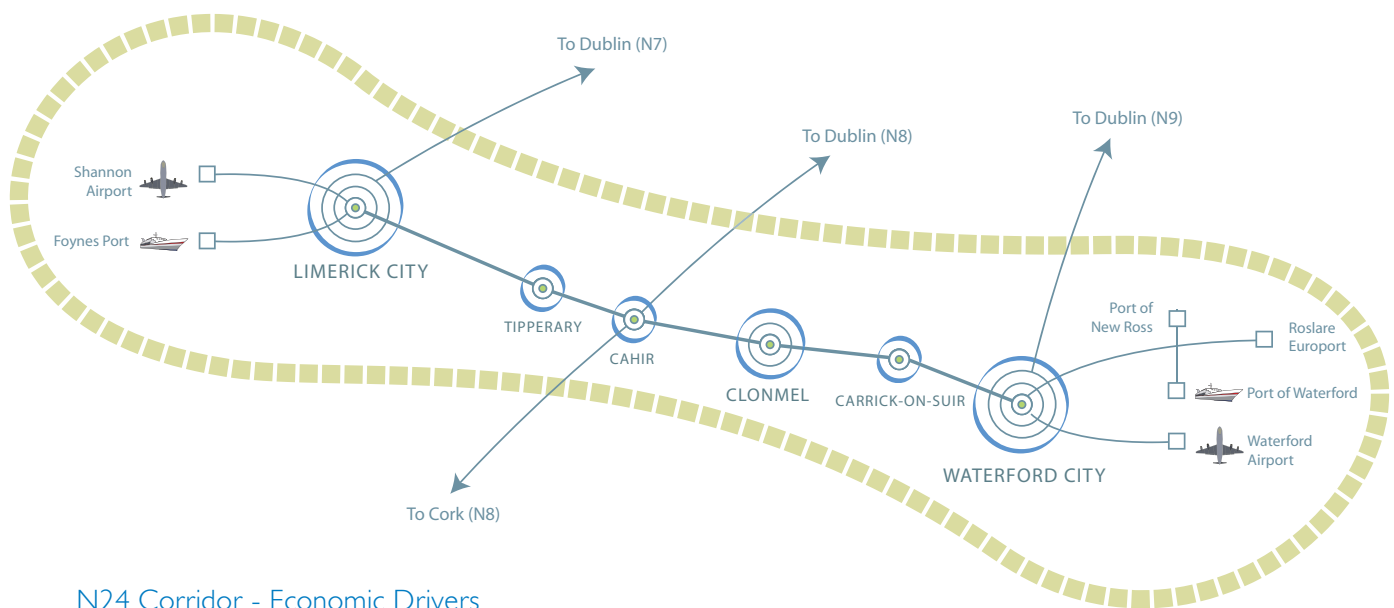
Main Street, Tipperary Town



# Executive Summary

## THE CORRIDOR

The N24 totals approximately 115 kms in length and links Limerick and Waterford, two important national Gateways, with associated ports and airports. In addition it passes through a number of towns including Clonmel, Carrick-on-Suir, Tipperary and Cahir and smaller villages. Altogether, the N24 corridor directly serves a population of 361,000 or almost 9% of the State total, and links the corridor to the N7, N8 and N9 routes to Dublin and Cork.

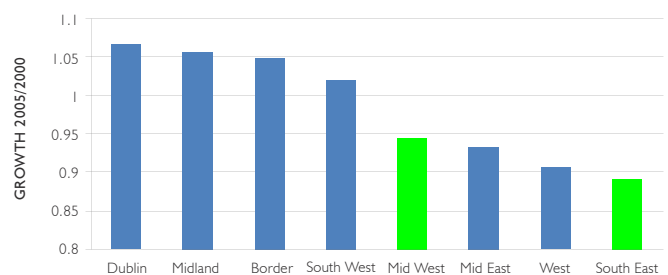


## N24 Corridor - Economic Drivers

### ECONOMIC UNDERPERFORMANCE

The N24 corridor lies within the South-East and Mid-West regions, an area of the State which has been underperforming economically for a number of years. Most importantly, growth in gross value added (GVA) per head, a measure of the value of the economic output, has been low in comparison to other regions, with the South-East being the slowest growing region in the State, so the output gap is widening.

### GVA GROWTH RATE



The poor economic performance is not restricted to the growth in headline economic output; rather a number of other indicators confirm and compound this underperformance, most notably:

- South-East GVA per head 26% below State average
- South-East personal income 8% below State average
- Mid-West unemployment rate 10% above State average
- South-East proportion of persons with a degree or higher is lowest of all regions.

### NATIONAL AND REGIONAL IMPORTANCE

The importance of the route to the development of the two regions, and the need for its improvement, have been acknowledged in national policy and strategy documents for some time. These documents include:

- National Roads Needs Study;
- National Spatial Strategy;
- Transport 21;
- National Development Plans; and
- Atlantic Gateways Initiative;

in addition to the Regional Planning Guidelines for the South-East and Mid-West Regions.

### CURRENT PROBLEMS

The current N24 is of variable standard and is certainly not consistent with its status as a National Primary route. This results in a number of problems, principally arising from congestion and safety issues. Along the length of the route, it is calculated that collisions have resulted in an average of 6 deaths and a loss of €13 million per year whilst, as a conservative estimate, journey time delays cost the regional economy approximately €22 million whilst further restricting growth for industry. Queuing traffic also give rise to environmental problems for residents and pedestrians through towns and villages centres. These are particularly acute in Tipperary where

they conflict squarely with the town's Heritage status and the RAPID initiative.

### SOLUTION

The solution to the problem has been well researched and nine improvement schemes have been planned by the NRA Regional Design Offices. However, these are currently at various stages of the planning process and currently there is no commitment to advance any of these schemes to construction in the near future.

This review has undertaken a preliminary assessment of the N24 route in line with the latest appraisal guidelines prepared by the NRA. The assessment has confirmed that the route would score particularly well across all of the NRA's criteria:

- Environment – improving air quality in bypassed town and village centres;
- Safety – dual-carriageways reducing deaths and injuries due to collisions;
- Economy – bypasses and dual carriageways improving journey times and journey time reliability;
- Accessibility – traffic relief in bypassed towns and villages assisting pedestrians
- Integration – linking with the N8, four ports (Shannon/ Foynes, Waterford, Rosslare and New Ross) and two airports (Shannon and Waterford).

The assessment has also highlighted the particularly high scores for the Tipperary Bypass, Clonmel to Cahir (N8), Carrick-on-Suir Bypass and Mooncoin Bypass sections.

### IT IS ESSENTIAL THAT :

- The N24 route as a whole is prioritised for construction;
- The Tipperary Bypass, Clonmel to Cahir (N8), Carrick-on-Suir Bypass and Mooncoin Bypass sections are prioritised for construction to begin in the post-2010 National Roads Programme.





Main Street, Tipperary Town

# 01

## Introduction

The N24 links directly Limerick and Waterford, in the State's Mid-West and South-East regions. It therefore links two air and sea port Gateways, (Shannon and Waterford Airports and Shannon/Foynes and Waterford Ports) as designated in the National Spatial Strategy<sup>1</sup>, two further important ports (Rosslare and New Ross) and serves the market and manufacturing towns of Tipperary, Clonmel and Carrick-on-Suir, linking all to Dublin and Cork via the N7, N8 and N9. In total it is estimated that the corridor directly serves a population of 361,000<sup>2</sup> or almost 9% of the State total.

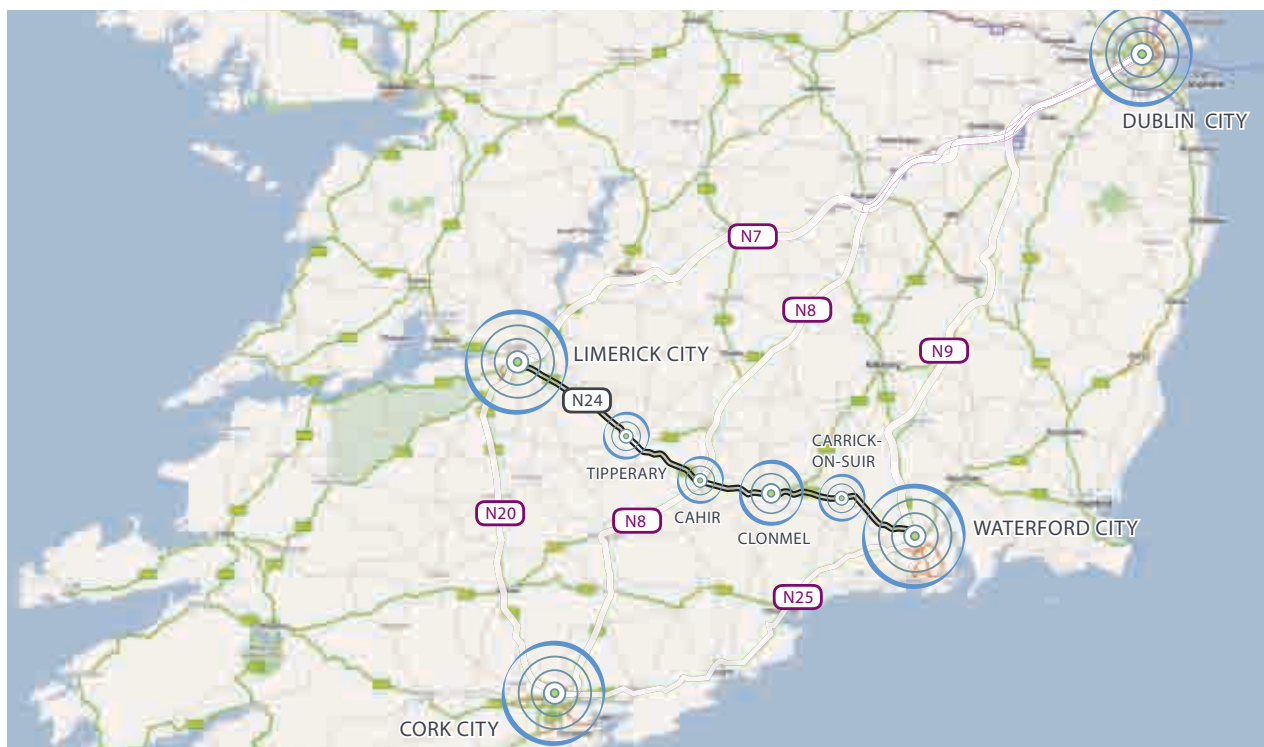
The importance of the route has been acknowledged for some time by national policy documents and improvements are now well overdue. The National Development Plan 2000 – 2006 confirmed the N24 as part of the 'Western Corridor' planned for improvement. However, the limited improvements completed recently have been wholly inadequate to keep pace with the problems. Additionally, in the latest programmes, i.e. the National Development Plan 2007 – 2013 and Transport 21, the importance of the route appears to have been

reduced and, in contrast, the N20 and N25 routes, which contribute to the Atlantic Corridor, given greater status.

The purpose of this report is to demonstrate and re-stress the importance of the N24 route and to request that Government re-states its commitment to upgrade the route to dual carriageway with a clear timescale for completion.

### THIS REPORT PRESENTS A COMPELLING CASE FOR ACTION, AND DEALS IN TURN WITH:

- The Problems with the N24 route;
- The Regional Economies;
- The National Context;
- The Solution – the improvement schemes proposed; and
- Recommendations, or what must happen next.



### N24 Route Location

<sup>1</sup> See excerpts from NSS as Annex 6

<sup>2</sup> Includes Limerick City (53,000), Waterford City (46,000) and the area estimated within 10 kms of the N24 route (262,000), source CSO 2006 Census of Population.



# 02

## The Problems

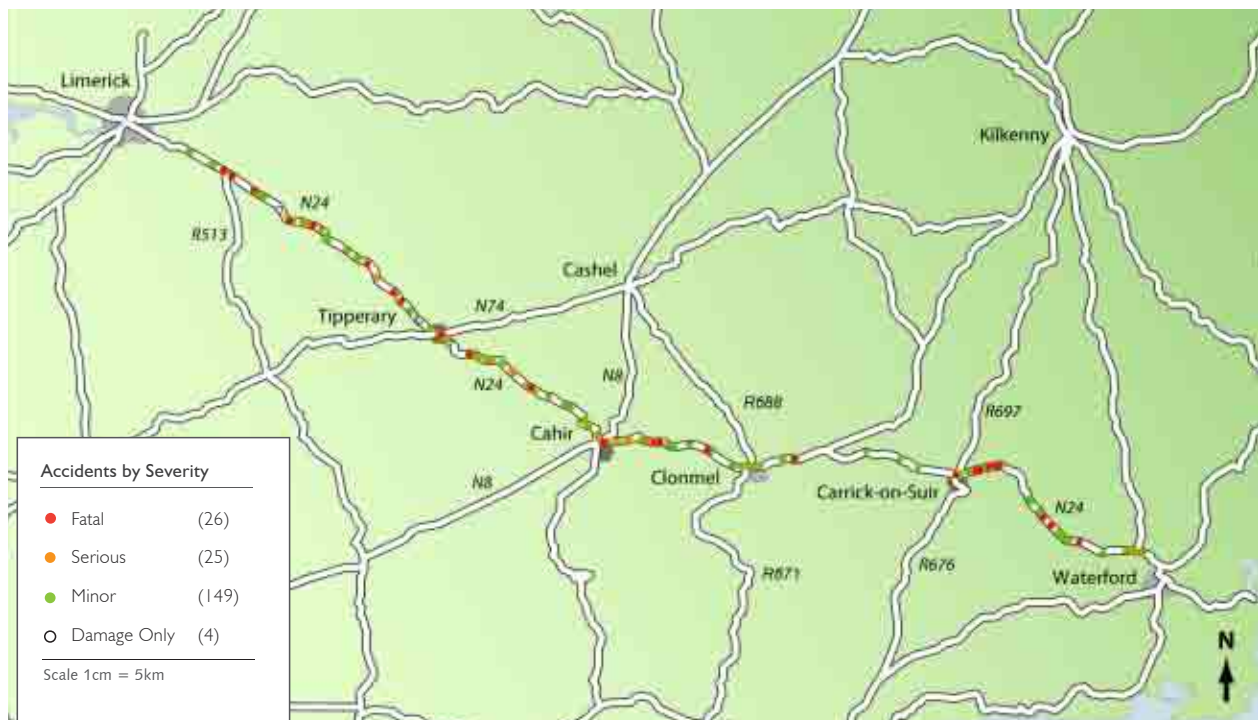
The N24 is a designated Key National Route which serves two Gateway cities but whose level of service falls substantially below the expected standard. At present there are a number of schemes to improve the route at various stages of planning. However, currently there is no commitment to advance any of these schemes to construction in the near future.

The current N24 is of variable standard and is certainly not consistent with its status as a key National Primary route. At best the 11 kms section between Fiddown and Piltown in Co. Kilkenny has recently been upgraded as a Type 3 Dual Carriageway. Whilst this reduces safety risks it allows overtaking in one direction only and drivers wishing to make right turns are required to make lengthy detours. However, in general, the standard of the N24 is single carriageway only with limited stretches of hard shoulder and limited opportunities to overtake safely.

The current N24 route is congested where it passes through the centre of eight villages<sup>3</sup> and four towns<sup>4</sup>, most notably

Tipperary and Carrick-on-Suir, and at peak times delays can amount to 20-30 minutes. The queuing traffic emits exhaust pollutants that have a serious health impact for the people of these towns. The queuing traffic also makes it difficult and unpleasant to explore the towns on foot; in particular this conflicts with Tipperary's status as a designated Heritage Town with tourist potential and the integrated efforts of the RAPID initiative, see Annex 8.

The route also has a number of narrow bridges, where it crosses the Limerick – Waterford railway line, which slow traffic and pose a significant safety risk. These features, in combination with high traffic volumes through towns and villages, limited opportunities for overtaking, numerous minor road junctions and private accesses are consistent with relatively high accident rates. Over the period 2002 – 2006, 30 people have been killed (in 26 accidents) on the N24 and the average annual cost of collisions has totalled almost €13 million<sup>5</sup>.



N24 Collisions 2002 - 2006

3 Boher, Pallasgreen, Oola, Monard, Limerick Junction, Bansha, Kilsheelan and Mooncoin.

4 Tipperary, Cahir, Clonmel and Carrick-on-Suir.

5 Source NRA Collision statistics for N24 route 2002-2006 valued by NRA Project Appraisal Guidelines Appendix 6 – National parameters value sheet

The quality of the route, combined with a relatively high proportion of large goods vehicles, lead to unreliable journey times and result in average end to end speeds of 65kph or less. This is considerably below the desired standard of 80kph and represents a loss to the economies of the South-East and Mid-West estimated as approximately €22 million every year<sup>6</sup>.

Clearly the route is not assisting the economic performance of the two Gateways and regions as it should. Hauliers and major employers have reported specific difficulties (see Annex 5). Hauliers have complained that they have to programme additional time for deliveries using the route and that they do not assign inexperienced drivers to the route due to safety concerns. Major employers have reported unreliable freight times to Shannon Airport and difficulties in recruiting staff from the corridor due to commuting congestion. They also report that the quality of the route discourages additional direct foreign investment by visiting executives who fly into Shannon. Uncertainty surrounding the timing and the precise alignment of the improved N24 route is hindering the planning and hence delivery of additional commercial development in a number of towns.

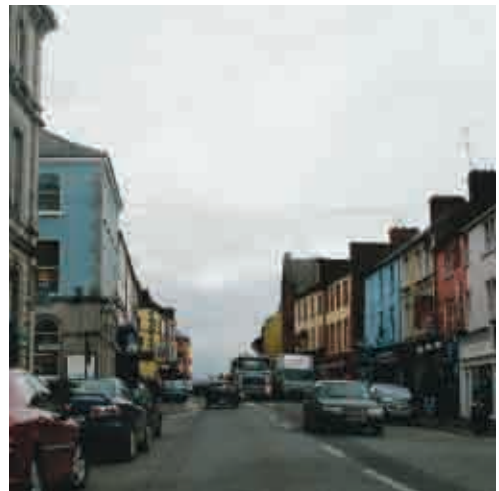
#### THE CURRENT N24 ROUTE PROBLEMS FEATURE:

- Environment – air quality issues and queuing traffic detracts from visual amenity of the traditional built environment in town centres.
- Safety – collisions resulting in an average of 6 deaths and cost €13 million per year.
- Economy - €22 million loss per year to South-East and Mid-West regions in journey time and restrictions on growth for industry.
- Accessibility – pedestrians face daily problems in crossing roads in congested town centres.
- Integration – uncertainty and delay is hindering the development of a number of towns along the route.



Between Cahir and Bansha, Co. Tipperary





03



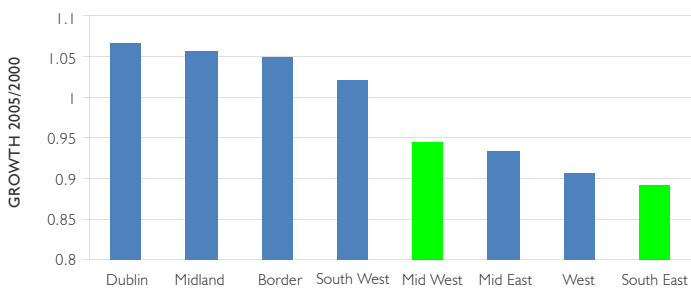
Fiddown - Piltown (Type 3 Dual Carriageway)  
Co. Kilkenny

# 03

## The Regional Economies

The N24 serves an area of the State which is currently underperforming economically. Whilst it is clear that the Greater Dublin Area is the main engine of growth for the State, it is expected that an area containing two principal Gateways may also perform strongly. This is in line with the thrust of the National Spatial Strategy and National Development Plans for more balanced regional development. However, a review of the economy of the South-East and Mid-West regions, over a range of headline economic indicators, confirm that these regions are generally underperforming.

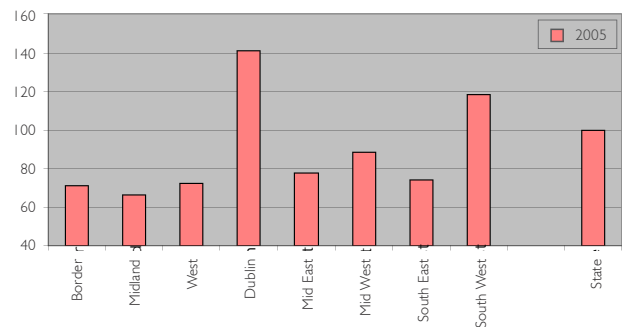
GVA GROWTH RATE



In terms of Gross Value Added (GVA) per head, for example, growth rates over the last five years for which data are available show both regions growing slower than the State average and the South-East being the slowest growing region in the country.

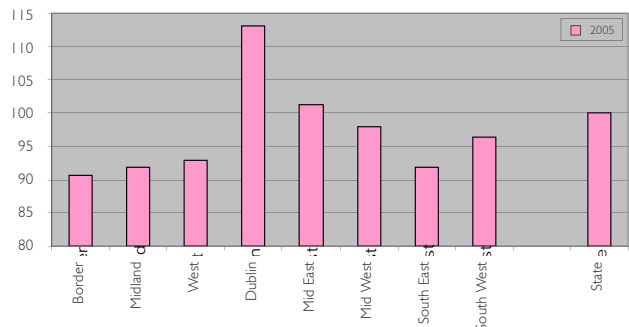
Additionally, in absolute terms at 2005, the GVA per head in the South-East is 26% below the State average and the Mid-West is 12% below, so the output gap is widening and both regions are falling further behind the State average.

GVA PER PERSON AT BASIC PRICES



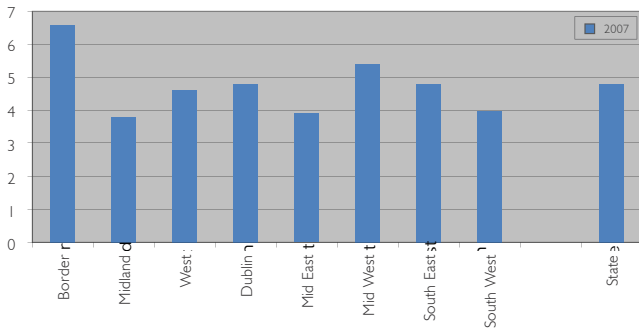
The poor performance in terms of GVA is also apparent in the level of personal income. Here, the South-East region is markedly (8%) below the average for the State and is on par with the Border, Midland and West regions.

DISPOSABLE INCOME PER PERSON



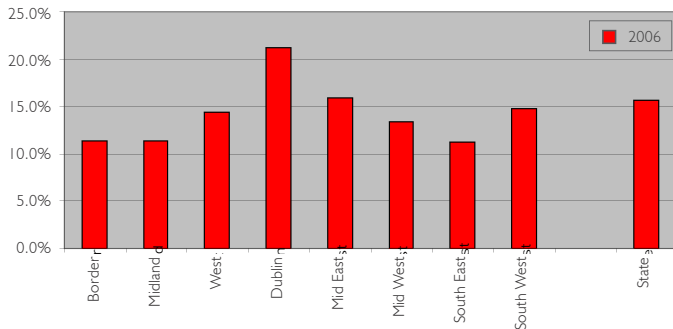
Unemployment in the Mid-West is (10%) higher than the State average and equal with the State average in the South-East. Given the relatively low level of unemployment coupled with low disposable income this would suggest wage rates are also lower than average.

### UNEMPLOYMENT RATE (%)



Looking at the future employment pool, the proportion of individuals with degree level qualifications in the South-East is the lowest in the State, and while in the Mid-West it is higher, it is still below the State average. In recent years these proportions have increased, but only in line with the State average. This presents a profile more in line with the Border Midland and Western (NUTS 2) region than the Southern and Eastern (NUTS 2) region which contains the N24 corridor.

### PERSONS AGED 15 YEARS OR OVER WITH DEGREE OR HIGHER



### REGIONAL IMBALANCE WITH THE OUTPUT GAP WIDENING:

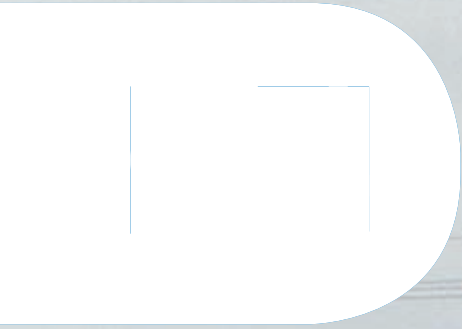
- South-East GVA per head 26% below the State average in 2005 and growth rates falling further behind in the last five years.
- South-East personal income 8% below the State average in 2005.
- Mid-West unemployment rate 10% higher than the State average in 2007.
- South-East proportion of persons with a degree or higher is lowest of all regions in the State.



Oola, Co. Limerick



Between Cahir and Bansha,  
Co. Tipperary



# 04

## The National Policy Context

The importance of the N24 route has been recognised and recorded in national policy documents for some time. However, in recent years the pace of improvements on the N24 has been wholly inadequate. Most worryingly, it appears that national decision-makers are overlooking the importance of the N24 to the regions, and the poor conditions currently faced by users of the route.

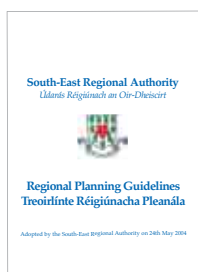
The following policy documents have documented the importance of the N24:

- The National Roads Needs Study 1998 identified a number of sections of the N24 for upgrade;
- The National Development Plan 2000 – 2006 identified the Western Corridor from Sligo through Limerick to Rosslare (N17, N18, N24 and N25);
- The National Spatial Strategy 2002 - 2020 (NSS) designated Shannon/Limerick and Waterford as Gateways and the N24 as a National Transport Corridor;
- Transport 21 (2006 - 2015);
- The National Development Plan 2007 – 2013 includes the improvement of road links between the main NSS Gateways; and

- The Atlantic Gateway Initiative, published by the Department of the Environment, Heritage and Local Government (DEHLG) in 2006, endorsed the development of the N24 as part of a pan-European import/export corridor linking Europe to the future Atlantic “motorway of the sea”. Most recently, the subsequent preparation by the DEHLG, in conjunction with the Regional Authorities and Local Authorities, of the Atlantic Corridor Gateway Frameworks, including the Limerick/Shannon - Waterford Corridor Framework, highlights the importance of this corridor to the Atlantic Gateways success. Also, this would provide a complimentary economic corridor to the Dublin-Belfast Corridor.

In addition, the Regional Planning Guidelines for the South-East and Mid-West confirm the importance of the N24 improvements for the development of these regions.

However, the National Development Plan 2007 – 2013 does not designate the N24 as part of the Atlantic Corridor which Transport 21 will improve progressively from 2010 onwards.



The Department of Transport has been working towards adopting best international practice in the use of a common decision framework across transport modes. In 2007 the Department published its own Common Appraisal Framework<sup>7</sup> and in 2008 the NRA released Project Appraisal Guidelines<sup>8</sup>. A key aspect of these documents is the requirement for the promoter of any transport scheme to articulate, in objective terms, the worth and value for money of the scheme across a prescribed range of objectives, namely environment, safety, economy, accessibility and integration. As demonstrated in section 5, the currently proposed N24 improvements score particularly well against the NRA's own appraisal guidelines and clearly deserve to be prioritised and constructed as a matter of urgency.

#### THE NATIONAL POLICY CONTEXT :

- The role of the N24 has been recognised and designated in a number of national and regional documents including the National Roads Needs Study, the successive National Development Plans, the National Spatial Strategy and the Regional Planning Guidelines.
- The NRA has published guidelines on a multi-criteria appraisal methodology for use in the prioritising of national road schemes – the N24 improvements score particularly well against these.
- The N24 would provide better connectivity to the N7, N8, and N9 routes and better integration with national policies.







05



# 05

## The Solution

The solution to the problem has been well researched and nine improvement schemes have been planned by the NRA Regional Design Offices (RDO):

- N7 / N24 junction upgrade at Ballysimon;
- Limerick N7 Ballysimon to Pallasgreen;
- Pallasgreen to Bansha (Tipperary Bypass);
- Bansha to Cahir (N8 junction);
- Cahir (N8 junction) to Rathkeevin;
- Rathkeevin to Kilheffernan (Clonmel Bypass);
- Kilheffernan to Piltown (Carrick-on-Suir Bypass);
- Piltown to Fiddown – now complete but at Type 3 Dual Carriageway standard; and
- Fiddown to Waterford N9 (Mooncoin Bypass).

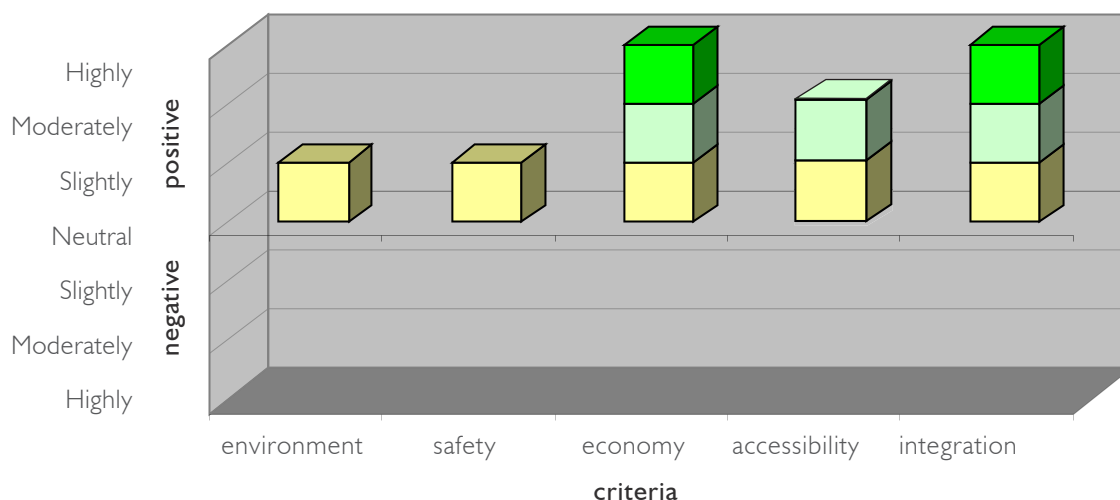
The schemes are entirely consistent with the NRA's own appraisal guidelines whose primary aim is "the right project in the right place at the right time". However, the schemes are currently at various stages of planning<sup>2</sup> with no commitment to advance to construction in the near future.

A preliminary assessment of the schemes has been undertaken for the purposes of this report; primarily based upon the material contained in the published documents. The summary results of this preliminary assessment are presented in the figure below.

### ENVIRONMENT – slightly positive due to Air Quality impacts

The improved N24 route will bypass a number of towns and villages leading to a reduction in traffic levels and hence in harmful Nitrogen Dioxide emissions close to resident and working populations.

PRELIMINARY APPRAISAL OF N24 ROUTE



### Preliminary Appraisal of N24 Route

### **SAFETY – slightly positive due to Accident Reduction impacts**

The proposed dual carriageway improvements will significantly reduce the number and severity of collisions on the current single carriageway route. In addition, traffic levels will be reduced in town centres where potential for pedestrian casualties is highest.

### **ECONOMY – highly positive due to Effectiveness / Efficiency impacts**

The elimination of junction delays in bypassed towns, the increased opportunities for overtaking slower moving vehicles and generally improved alignments will lead to significant benefits in travel time and travel costs. In addition, there may be significant wider economic benefits arising from improved labour supply and further inward investment.

### **ACCESSIBILITY – moderately positive due to Vulnerable Groups and Deprived Areas impacts**

The reduction in traffic levels in town and village centres will benefit pedestrians from vulnerable groups in particular (i.e. elderly, young people and people with disabilities). In addition, the improvements will benefit the following RAPID Strand 2 designated areas: Clonmel, Tipperary and Carrick-on-Suir.

### **INTEGRATION – highly positive due to Transport, Land Use and Geographical impacts**

- Transport - Improves the linkage, providing access between and to four ports and two airports.
- Land use - Consistent with published planning documents.
- Geographical - The N24 has been designated on the Trans-European Networks of Transport (TENs-T).

Additional explanation of the preliminary appraisal including the resulting 'likely scaling statements' is given in Annex 3.

The performance of the nine component improvement schemes is strong across all of the NRA criteria, and in particular Economy and Integration. Together these give the route a strong composite performance and mark the N24 route as appropriate for prioritisation and for construction to begin in the NRA post-2010 Programme. The performance of the following sections merit special attention:

- Tipperary Bypass – economic, environmental and accessibility benefits arising from congestion relief in Tipperary Town;
- Clonmel / Cahir (N8) – economic benefits arising from linkage to M8 (Dublin and Cork);
- Carrick-on-Suir Bypass - economic, environmental and accessibility benefits arising from congestion relief in Carrick-on-Suir town; and
- Mooncoin Bypass – economic benefits arising from linkage to Waterford and M9 (Dublin) and N25 to Rosslare and Cork.

#### **PRELIMINARY NRA APPRAISAL :**

The NRA Regional Design Offices have developed design upgrades for the route. The improvements perform strongly against the NRA's own criteria

- Environment – slightly positive
- Safety – slightly positive
- Economy – highly positive
- Accessibility – moderately positive
- Integration – highly positive.



Tipperary Town



# 06

## Recommendations - What Must Happen Next

This review has confirmed conclusively that there is a compelling case for the improvement of the N24 route on the basis of the NRA's own criteria, namely environmental improvements, safety records and risks, economic worth, accessibility and integration with other transport modes and government policies.

It is therefore imperative and urgent that the Government commit resources to improve the N24 route as part of the programme which will follow the completion of the Major Inter-Urban Routes in 2010. This will provide a route from Limerick to Waterford in keeping with its designation as a Key National Route.

The review acknowledges that it will not be practical to improve all of the N24 route at the same time. Therefore, it is recommended that four sections are selected for prioritisation:

1. The Tipperary Bypass to relieve the town of its daily traffic queues and provide a boost to the local economy.
2. The Clonmel to Cahir section to maximise the benefits arising from the M8 motorway linkages to Dublin and Cork.
3. The Carrick-on-Suir Bypass to reduce traffic delays through the town and encourage further development and improvements to the town.
4. The Mooncoin Bypass to allow the eastern parts of the route, including Carrick-on-Suir, to fulfil their role as the economic hinterland of Waterford City and capitalise on the M9 linkage to Dublin and N25 to Rosslare and Cork.

### IT IS ESSENTIAL THAT :

- The N24 route is prioritised for construction.
- The Tipperary Bypass, Clonmel to Cahir section, and Carrick-on-Suir and Mooncoin Bypass sections are approved for construction to begin in the NRA's post-2010 Programme.

## The Existing N24 Route

### INTRODUCTION

The existing N24 route is approximately 115 kms in length and principally of single carriageway standard with some lengths including a full hard shoulder.

Traffic levels on the rural sections range from approximately 5,000 vehicles per day, between Cahir and the N8 junction, to approximately 14,000 on the approaches to Limerick. On urban sections flows range up to 22,000 vehicles per day.

### N7 / N24 JUNCTION AT BALLYSIMON

This junction currently operates satisfactorily during offpeak periods but shows strain during peak periods. With the completion of the N7 improvements in the near future it is expected that traffic flows will increase significantly and additional capacity will be required.

### LIMERICK N7 BALLYSIMON TO PALLASGREEN – APPROXIMATE LENGTH 16 KMS

This section of route is of mixed standard and runs through the villages of Boher and Pallasgreen (population 359) with entry traffic calming features. Over the central section of approximately 4 kms the carriageway has been widened to 10 metres approximately and a hard shoulder provided. On the eastern section towards Pallasgreen a length of approximately 6 kms is of 7 metres width approximately and has no hard shoulder and limited overtaking opportunities. Traffic levels on this section range between 9,000 AADT approximately at the eastern end to 17,000 at the western end, beyond the junction with the R513.

### PALLASGREEN TO BANSHA – LENGTH 28 KMS

This section of route is of mixed standard and runs through the centre of Tipperary Town (population 5,065) in addition to the villages of Oola (386), Monard, Limerick Junction and Bansha (272) with entry traffic calming features. Traffic levels on this section are relatively consistent at approximately 8,000 AADT with a Heavy Commercial Vehicle (HCV) proportion of 12%. Over the western section on approach to Tipperary Town, there is a length of approximately 5 kms with carriageway width 10 metres and some overtaking opportunities. However, the village of Oola and the narrow rail bridges at Brooks Bridge, Oola and at Limerick Junction break this length.

Traffic congestion is consistent through the centre of Tipperary Town and causes delays in the order of 20 minutes at regular peak periods. Delays are caused by turning traffic, parking traffic and traffic signals and the lack of width for HCVs.

East of Tipperary Town the section through Bansha Woods is bendy and of limited width making overtaking impossible. The relatively high proportion of HCVs leads to low average speeds.

### BANSHA TO CAHIR (N8 JUNCTION) – LENGTH 8 KMS

This section of route is generally of standard single carriageway without hard shoulder. The western section is of particularly poor alignment including a substantial length with a steep ditch to the south. To the east of the narrow rail bridge is a short section which provides overtaking opportunities. Traffic levels on this section are approximately 6,000 AADT.



### **CAHIR TO RATHKEEVIN – LENGTH 12 KMS**

This section of route is of mixed standard. The western part has recently been upgraded as part of the N8 Cashel to Mitchelstown Scheme and is generally of Type 3 Dual Carriageway (2+1) providing overtaking opportunities. The central part is of improved standard single carriageway with hard shoulders and protected turns. The eastern part is of standard single carriageway without hard shoulders. Traffic levels on this section are approximately 11,000 AADT.

### **RATHKEEVIN TO KILHEFFERNAN (CLONMEL BYPASS) – LENGTH 11 KMS**

This section of route is of improved standard single carriageway with hard shoulders and/or protected turns where appropriate. The western part of 4 kms links to a length of 4 kms providing an orbital distributor function for Clonmel whilst the eastern 3 kms links to the N76 (Clonmel to Kilkenny). Traffic levels vary between 14,000 and 18,000 AADT. There are seven roundabouts on the orbital route and congestion occurs at peak periods causing significant delays to strategic traffic.

### **KILHEFFERNAN TO PILTOWN (CARRICK-ON-SUIR BYPASS) – LENGTH 17 KMS**

This section of route is generally of standard single carriageway with hard shoulder on rural parts. It passes through the village of Kilsheelan (population 520) and the town of Carrick-on-Suir (5,906). Whilst the N24 does not route directly through the shopping core of Carrick-on-Suir (as in Tipperary Town) it does use edge

of centre streets which have residential accesses and significant pedestrian activity and directly passes a number of schools. Strategic traffic on the N24 is also delayed at traffic signals and at priority junctions. Traffic levels are of the order of 12,000 AADT.

### **PILTOWN TO FIDDOWN – LENGTH 11 KMS**

This section was upgraded in 2005 as a Type 3 Dual Carriageway. This standard is a 2-lane plus 1 lane (2 + 1) design which provides for safe overtaking and reduced conflicts at junctions. It bypasses the villages of Piltown (population 968) and Fiddown (194).

### **FIDDOWN TO WATERFORD N9 – LENGTH 12 KMS**

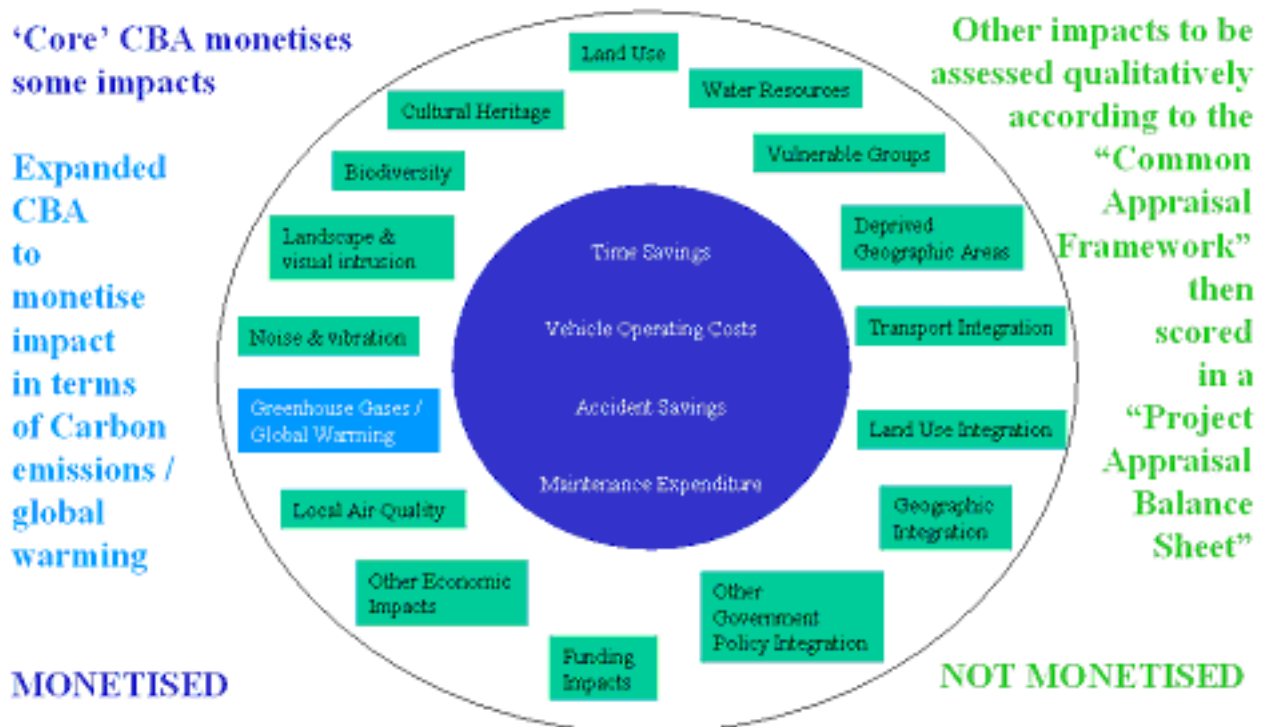
This section of route is of single carriageway with various lengths with and without hard shoulder. The route runs through the village of Mooncoin (population 1,002) with entry traffic calming features. A significant central length, approximately 4 kms, has limited forward visibility and overtaking is prohibited. Traffic levels on this section are of the order of 11,000 AADT.

# Annex 2

## Project Appraisal Guidelines (NRA 2008)

The purpose of the Project Appraisal Guidelines is to assist road designers and decision makers in following standardised procedures to ensure comparability and hence best value for money on all national road schemes.

The guidelines build upon the objectives in the Department of Transport's multi-modal guidance document but provide an additional focus on national road projects. As for the multi-modal guidance a key feature of the roads guidance is the extension of the appraisal beyond 'core' Cost Benefit Analysis (CBA) to include non-monetary impacts across environmental, accessibility and integration objectives as summarised in the figure, taken directly from the Guidelines below.



## Annex 3

# Preliminary Appraisal of N24 Schemes using NRA Framework

A preliminary review was undertaken against the NRA appraisal framework using the published material for the NRA improvement schemes. The table below

summarises the results of the preliminary review. Further explanation for each criterion and element is given in the text that follows.

CRITERION	ELEMENT	LIKELY SCALING ELEMENT
Environment	Air	Moderately positive
	Other	Not known
	Overall	Slightly positive
Safety	Accidents	Moderately positive
	Security	Neutral
	Overall	Slightly positive
Economy	Effectiveness/Efficiency	Highly positive
	Other	Moderately positive
	Overall	Highly positive
Accessibility	Vulnerable Groups	Moderately positive
	Deprived Areas	Moderately positive
	Overall	Moderately positive
Integration	Transport	Highly positive
	Land Use	Highly positive
	Geographical	Highly positive
	Other	Highly positive
	Overall	Highly positive

## ENVIRONMENT

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### Air Quality

The improved N24 route will bypass Tipperary, Cahir, Clonmel, Carrick-on-Suir and Mooncoin in addition to seven villages and settlements<sup>10</sup>. The reduction in traffic levels close to resident and working populations is likely to result in significant reductions in emissions of harmful Nitrogen Dioxides and hence a moderately positive scaling statement.

### Other

It is not possible to estimate the impacts against the other environmental criteria.

## SAFETY

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### Accident Reduction

Over the period 2002 – 2006, 30 people have been killed on the N24 and the annual cost of collisions has totalled almost €13 million. It is likely that the improvements schemes will significantly reduce these figures. This is because the proposed dual carriageway standards are much safer than the existing single carriageway provided and traffic will be reduced in town centres where potential for pedestrian casualties is highest. It is likely that a moderately positive scaling statement will result.

### Security

The improvements are unlikely to produce any significant impacts – neutral scaling statement.

## ECONOMY

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### Effectiveness / Efficiency

The elimination of junction delays in bypassed towns, the increased opportunities for overtaking slower moving vehicles and generally improved alignments will lead to significant benefits in travel time and travel costs. An increase in average speeds from 65 kph to the desired standard of 80 kph would produce a benefit of €22 million every year. (This figure is derived from an estimate of 20 minute delay, for 10,000 persons per day, times 300

days per annum, times Working Time Value of €22.2 / hour from NRA Project Appraisal Guidelines Appendix 6 – National parameters value sheet.) It is likely that a highly positive scaling statement will result.

### Other

It is likely that the N24 improvements would have significant wider economic benefits. As reported by major employers in the corridor, see Annex 5, the improvements may improve labour supply and further inward investment, whilst hauliers would expect more competition in the corridor. It is expected therefore that a moderately positive scaling statement will result.

## ACCESSIBILITY

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### Vulnerable Groups

The improved N24 route will bypass Tipperary, Cahir, Clonmel, Carrick-on-Suir and Mooncoin in addition to smaller villages and settlements. The reduction in traffic levels and hence pedestrian severance effects is likely to benefit vulnerable groups (i.e. elderly, young people and people with disabilities disproportionately) and hence result in moderately positive scaling statements.

### Deprived Areas

The improvements will benefit the following RAPID Strand 2 designated areas: Clonmel, Tipperary and Carrick-on-Suir. Hence moderately positive scaling statements are likely.

## INTEGRATION

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### Transport

The N24 schemes will provide a number of significant beneficial impacts:

- Improves the linkage along a key National Road Corridor to N8, N7, N9;
- Improves the interconnectivity with the rail network at Limerick Junction;
- Provides for significantly improved express coach links between Limerick and Waterford; and

- Improves the linkage, providing access between and to four ports (Shannon/Foynes, Waterford, Rosslare and New Ross) and two airports (Shannon and Waterford).

Hence highly positive scaling statements are likely.

### Land use

The N24 schemes are consistent with, and are mentioned specifically in, both land use strategies and local development plans, see Annex 4. Hence highly positive scaling statements are likely.

### Geographical

The N24 schemes will provide a number of significant beneficial impacts:

- The N24 has been designated on the Trans-European Networks of Transport (TENs-T); and
- The N24 links two major Gateways as designated in the National Spatial Strategy.

Hence highly positive scaling statements are likely.

### Other Government policy integration

The N24 is included in a number of major Government policy documents, as follows:

- Designated a Key National Primary Route in the National Development Plan 2007-2013;
- Designated an Other Key National Primary Route in Transport 21; and
- Supported under the objective to provide high quality transport infrastructure between the Gateway/Hub areas and other Gateways in the Regional Planning Guidelines of the South-East and Mid-West regions.

Hence highly positive scaling statements are likely.

# Review of Development Plans

A review of the Development Plans in the N24 corridor confirms that they support the proposed road improvements and are protecting the alignment corridors from development that might threaten its implementation and efficient operation. These plans include:

- Limerick City Development Plan (2004)
- Limerick County Development Plan (2005)
- South Tipperary County Development Plan (2003)
- Waterford City Development Plan (2007)
- Waterford County Development Plan (2005)
- Kilkenny County Development Plan (2008)

The N24 improvements are also advocated by:

- South-East Regional Authority Regional Planning Guidelines (2004)
- Mid-West Regional Authority Regional Planning Guidelines (2004)

In addition, the Local Area Plans are planning further complementary development and improvements, for example:

- Limerick Junction Local Area Plan 2005 – Policy EMP1 (Masterplan for sustainable development of lands)
- Tipperary Town and Environs Development Plan 2007 – Policies ECON DEV 4 (Masterplan for sustainable development of lands), II (Town Centre traffic Management), TCI – (Town Centre Environmental Improvements)
- Cahir Local Area Plan 2005 – Policies EMP5 (Masterplan for sustainable development of lands), TCI – Town Centre Environmental Improvements
- Clonmel and Environs Development Plan 2008 – TRANS3 (Planning of Inner Relief Road)
- Carrick-on-Suir Town Development Plan 2008 – TCI (Town Centre Environmental Improvements)

## Survey of N24 Companies

### INTRODUCTION

A telephone survey of a sample of the major employers and transport companies located along the N24 Corridor was undertaken to gauge the extent to which the current state of the road affects commercial interests in the region and the qualitative impact an improved route may have. The following companies responded to the survey:

### MAJOR EMPLOYERS

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- Abbott Devices
- Boston Scientific
- Merck Sharp and Dohme
- Bulmers
- Medite Europe / Coillte
- Biotipp

### HAULAGE FIRMS

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- Flancare Nationwide Logistics
- Ballinalard Transport
- Waterford Transport
- Brophy Transport

### MAJOR EMPLOYERS

The following points summarise the responses of the major employers:

- The section from Cahir to Tipperary and Limerick requires specific attention
- In order to minimise accidents, drivers are instructed to be more mindful of safety concerns rather than delivery timetables
- They can be reluctant to employ people from Limerick as experience has shown that it is difficult to retain staff due to the length and quality of the commute
- Improvements would lead to more efficient operations and therefore lower costs
- Clonmel requires a bypass of the entire urban area rather than the current arrangement
- Linkage from Clonmel to N8 is vital
- Linkages for the Biotech and Pharmaceutical industry to 3rd level Colleges at Waterford and Limerick are essential – current N24 compromises the ability to foster and maintain these links
- Links to Shannon Airport for shipment require to be reliable
- Links to Shannon Airport for Senior Executives and Directors of US-based multinationals are important for the image of the regions and the country as a whole in order to attract further investment.

## HAULAGE FIRMS

The following points summarise the responses of the haulage firms:

- Improvements to the N24 would be essential especially as it relates to onward journeys to Rosslare Port
- The road surface at present is of poor quality in places leading to costs being incurred related to lost time and wear and tear on the fleet
- Drivers prefer not to use the N24 at all if possible
- Journey times are inconsistent
- Reliability of delivery is difficult
- A new route is required to replace the N24
- The 2 + 1 stretches can still pose a problem for overtaking if stuck behind a slow moving vehicle
- New 2 + 1 arrangements have caused difficulties in places due to the removal of access points
- Slow moving agricultural vehicles and port related traffic can cause major delays.

Overall, the N24 presents a major obstacle to commercial operations along its route. Journey times are generally unpredictable. The road is regarded as unsafe and places of employment along the corridor are regarded as unattractive to commuters due to the quality and length of the journey to work. Moreover, the linkages from the major settlement centres along the corridor to key drivers of economic activity such as Shannon Airport, Rosslare Port, Waterford Institute of Technology, Limerick Institute of Technology and the University of Limerick require to be of a standard which ensures safety, efficiency and reliability. Associated with this and due to the regions' reliance on overseas investment, specifically in the Biotech and Pharmaceutical sectors, the transport network should present a progressive image if such levels of investment are to be maintained and strengthened.







## Annex 7

# Current Status of N24 Schemes

### N7/N24 JUNCTION UPGRADE AT BALLYSIMON

An interim upgrade of this junction, incorporating traffic signals and traffic calming, has just been completed.

### LIMERICK N7 BALLYSIMON TO PALLASGREEN

Preliminary investigative work on the N24 Ballysimon to Pallasgreen project has just commenced. An early deliverable of this project is a study of the existing N7/N24 and the identification of further upgrade works, if required.

### N24 PALLASGREEN / BANSHA ROAD IMPROVEMENT SCHEME . (30 KMS)

#### Phase 3 – Route Selection

Preferred Route identified in April 2001.

Part 8 Planning Process completed for a wide single carriageway in December 2004.

#### Phase 4 – Preliminary Design/Land Acquisition

CPO drawings and a CBA were forwarded to the NRA for their approval in June 2006.

Route will now be a Type 2 dual carriageway. An EIS and revised CPO drawings now being prepared by Tramore RDO. Expected completion of documentation end 2008 for submission to NRA.

### N24 BANSHA/CAHIR ROAD IMPROVEMENT SCHEME. (13 KMS)

#### Phase 3 – Route Selection

Preferred Route identified in December 2001.

The route will now be a Type 2 dual carriageway. Work in progress in preparing an EIS and CPO drawings. Expected completion of documentation end 2008 for submission to NRA.

### N24 CAHIR/RATHKEEVIN ROAD IMPROVEMENT SCHEME. (10 KMS)

#### Phase 3 – Route Selection

A Preferred Route was identified in December 2001.

A 3 kms section of this scheme between Cloghabreeda and Knockagh was constructed and opened to traffic in October 2007.

#### Phase 4 – Preliminary Design/Land Acquisition

The road is mostly single carriageway. The route will now be Type 2 dual carriageway. Work is in progress in preparing an EIS and CPO documentation. (The 3 kms section opened in October 2007 will be retrofitted in due course). Expected completion of documentation end 2008 for submission to NRA.

### **N24 CLONMEL BY PASS ROAD IMPROVEMENT SCHEME. (15 KMS)**

#### **Phase 3 – Route Selection**

Work is in progress in identifying a Preferred Route. The road will be a Type 2 dual carriageway. Final route depends on schemes to east and west.

### **N24 CARRICK ON SUIR BY PASS ROAD IMPROVEMENT SCHEME. (17 KMS)**

#### **Phase 3 – Route Selection**

A Preferred Route was identified in December 2001.

The Part 8 Planning process was completed for a wide single carriageway in December 2004.

#### **Phase 4 – Preliminary Design/Land Acquisition**

Consultants now appointed to prepare an EIS and CPO drawings for Type 2 dual carriageway. Expected completion of documentation end 2008 for submission to NRA.

### **FIDDOWN TO WATERFORD N9 (MOONCOIN BYPASS)**

#### **Phase 4 – Preliminary Design**

Consultants working on bringing scheme forward to preliminary design, CPO and EIS for a high-quality dual carriageway/Type 2 dual carriageway. Expected completion of documentation end 2008 for submission to NRA.

## Annex 8

# Letter from RAPID Programme Co-Ordinator

RAPID Programme  
Tipperary Town  
The Bridewell  
St Michael's Street  
Tipperary

Telephone: 062 51694  
Mobile: 087 2441911  
email: [mark.ryan@southtippcoco.ie](mailto:mark.ryan@southtippcoco.ie)



David Coleman  
Town Clerk  
Tipperary Town Council  
Dan Breen House  
Tipperary Town.

March 25<sup>th</sup> 2008.

Dear Mr Coleman,

Tipperary Town RAPID Programme has been active since 2002 on the design and delivery of a number of projects here in Tipperary that assists the Social and Economic Development of the Town.

We have recently been requested by the Department of Community, Rural & Gaeltacht Affairs to draft a second local RAPID Strategic Plan for 2008-2013 on a number of Strategic Themes. As a result, we are currently active in pursuing a local public consultation process on issues and themes for development in the Town.

A key priority that is consistently raised at Public Workshops featuring local residents and the wider Community & Voluntary is the increasing concern around current traffic patterns in the town centre and in the local residential estates.

There has been a significant increase in congestion in the Town Centre, and as a result, the local housing estates and residential areas have now become thoroughways for the excess traffic. Moreover, estates that were already at capacity regarding traffic flows and parking capacity are under alarming pressure. Many local Residents Groups have pointed out the impact this is having on both the Quality of Life in their area, and also on the consequences from a Health & Safety point. While the Town Council has been very accommodating in supplying Pedestrian Crossings, Speed Ramps and improved Road Markings and Signage, there is a more serious underlying issue to be resolved and the

RAPID Programme has agreed that the current detrimental Traffic Pattern and Flow can only be rescued by the development of the By-Pass for Tipperary as part of the Re-Alignment of the N24.

The local Community Consultation Workshops have agreed to support the Town Council in any effort to relay the significance of this project to the National Roads Authority.

Apart from the obvious impact that the traffic difficulties is currently having on the Quality of Life and the Health & Safety impact in the estates, we would also be concerned that the failure to fast-track the Tipperary Town By-Pass will further delay and impede the efforts to promote the Economic Regeneration of the Town and its hinterland. There have been a number of efforts to encourage Industrial Development, promote the highly strategic location of the Town for significant investment and economic development, and promote and market the Tourism potential of the Town. However, despite well-orchestrated efforts and campaigns, the positive attributes have been severely dented by the obvious Traffic difficulties in the Town. It has become very clear that future Economic and Social Development, vital to progressing the Town, will be increasingly difficult to sustain until the proposed By-Pass is put in place.

Many stakeholders have commented on the critical nature that the N24 has on the future enhancement and development of Tipperary Town and the surrounding hinterland. Tipperary Town can argue that it is being disproportionately impacted upon because of the Traffic congestion issue. As well as being one of the most Social and Economically disadvantaged towns in the State, it has to combat this disadvantage with the backdrop of this most serious infrastructural deficit.

Tipperary Town RAPID Programme seeks to support the endeavors of Tipperary Town Council and South Tipperary County Council in any negotiations with the NRA and we would be available to further discuss the critical significance this Project plays on the future Social and Economic development of Tipperary Town.

Yours Sincerely,



Mark Ryan  
RAPID Co-Ordinator

RAPID Programme: An Gardaí; Dept Social & Family Affairs; FAS; Health Service Executive; Knockanrawley Resource Centre; Network of Residents Groups; POBAL; South Tipperary County Council; South Tipperary VEC; Three Drives Family Resource Centre; Tipperary LEADER; Tipperary Regional Youth Service; Tipperary Town Council. Co-Ordinator: Mark Ryan 062 51694

## Annex 9

# Study Steering Committee

### STUDY STEERING COMMITTEE

Mr. Thomas Byrne, South-East Regional Authority

Mr. Billy McEvoy, South Tipperary County Council

Mr. John Mulholland, Kilkenny County Council

Mr. John O'Flynn, Waterford County Council

Mr. Fergus Galvin, Waterford City Council

Mr. Liam Conneally, Mid-West Regional Authority

Mr. Paul Crowe, Limerick County Council

Mr. Pat Dromey, Limerick City Council

Mr. Michael Moroney, South-East Regional Authority  
(Secretary to Committee)

