

Ex-post Evaluation of the 2007-2013 Northern Ireland Rural Development Programme (NIRDP)

Northern Ireland Statistics and Research Agency
December 2016



**Ex-post Evaluation of the
2007-2013 Northern Ireland
Rural Development
Programme (NIRD P)**

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1.0 Executive Summary

Northern Ireland Rural Development Programme 2007-2013

Background

The EU regulatory framework for the 2007-2013 programming period simplified the EU funding mechanisms by bringing together a number of existing funds and initiatives under one European Agricultural Fund for Rural Development (EAFRD). The Northern Ireland Rural Development Programme (NIRDP) was developed in line with the regulatory framework and had three main objectives which were:

- Axis 1 - Improving the competitiveness of agriculture and forestry;
- Axis 2 - Improving the environment and the countryside, and
- Axis 3 - Improving the quality of life and the management of economic activity in rural areas.

The programme included two other strands or Axes, which were;

- Axis 4 - the LEADER method of delivery, and
- Axis 5 – technical assistance.

It is important point to note that at the time the programme was developed and approved Northern Ireland was experiencing an economic upturn as a result of low interest rates, increased public spending and a strong UK economy. The effect of this prosperity was particularly evident in the property market and the construction industry, with house prices rising to their peak levels in August 2007.

In 2008, the collapse of the financial institutions caused a UK and wider economic downturn and recession. The subsequent fall in house prices had a particularly devastating effect on the local economy which was felt across all sectors, and clearly impacted on the rural area the NIRDP aimed to support. The strength and depth of the recession had subsequent implications for the delivery of the Programme, including the availability of match funding from both private businesses and Government departmental budgets.

Funding

The 2007-2013 NIRDP was approved by the European Commission on 24th July 2007 and the overall EU allocation to the 2007-2013 NIRDP was approximately €329.5m. The final eligible spend under the Programme was **€329.3m**, or 99.92% of the allocation available.

When matched with funds from DARD's own budget, this shows a total public value for the Programme of approximately **£506m**.

In addition to the EU allocation and the funds provided from DARD's own resources, a number of schemes had an element of private match funding. Therefore, the extent of the Programme's investment in the agri-food industry, the environment and the rural economy will be significantly higher than the £506m.

Ex post evaluation

The Ex post evaluation of the NIRD is the final part of ongoing evaluation of the 2007-2013 programming period and has built upon the monitoring and evaluation activities conducted throughout the programme implementation period. It focused on EAFRD and national expenditure delivered through the RDP.

This formal evaluation shows achievements from the programme and determines if the policy was designed and implemented appropriately to address the most relevant needs in Northern Ireland.

The evaluation is intended to be a policy learning tool, which will enable the use of the evaluation results to improve the design, quality and implementation of future rural development policy.

Summary of Programme Performance

The objective of Axis 1 of the Rural Development Programme 2007-2013 was to improve the competitiveness of agriculture and forestry by supporting restructuring, development and innovation. Total public expenditure under this Axis was **£37.8m**.

The key achievements under this Axis included:

- **51,782** participants successfully completed a training activity related to agriculture and/or forestry.
- **11,281** individuals made **16,547** visits to Focus Farms.
- **8,192** participants attended 748 Environmental Workshops.
- **2,766** farmers attended Bovine Viral Diarrhoea (BVD) awareness sessions.
- **5,383** people attended FarmSafe Awareness sessions and an additional **1,038** people completing the FarmSafe Net online training.

- Assistance under the Processing and Marketing Grant Scheme helped **115** agri-food businesses in Northern Ireland to expand, develop and improve their economic performance.
- **5,343** farm businesses received support under the Farm Modernisation Programme.
- The Manure Efficiency Technology Scheme (METS) funded **223** farm holdings to invest in advanced slurry spreading technology.
- **80** land owners benefited from support under the Short Rotation Coppice (SRC) scheme, planting **449 ha** of renewable energy crops.
- **64** cooperation initiatives were supported under the Supply Chain Development Programme leading to 35 enterprises introducing new products and/or techniques.

The objective of Axis 2 of the Rural Development Programme 2007-2013 was to improve the environment and the countryside by supporting land management. Total public expenditure under this Axis was **£357.4m.**

- Over the 2007-2013 RDP period **£155m** was paid to farmers on less favoured land contributing to the continuation of farming in the Less Favoured Areas (LFA) and to the maintenance of viable rural communities. On average **13,411** farmers were supported annually to farm **520,237 hectares** of LFA land.
- The Agri-environment Programme supported on average **11,699** farm holdings and **433,263 hectares** (around 43% of agricultural land in Northern Ireland) with the aim of enhancing biodiversity, improving water quality, enhancing the landscape and mitigating climate change. Since the RDP began in 2007, £187million has been provided to farmers in these schemes, with a peak in participation at the end of 2009, with **12,600** participants and **468,000 hectares** of agricultural land under agreement.
- Under the Woodland Grant Scheme and Farm Woodland Premium Scheme, **813** beneficiaries received afforestation aid, creating **1,871 ha** of afforested land.
- **17** holdings received support under the Sustainable Forestry Operations Grant and Woodland Environment Grant, with 89 ha of land under forest environment support.

The objective of Axis 3/4 of the Rural Development Programme 2007-2013 was to improve the quality of life in rural areas and encourage diversification of economic activity. Total public expenditure under this Axis was **£105.8m.**

- **1,194 jobs** created across Axis 3.
- Over £83m was drawn down by rural businesses, community groups and other strategic bodies, securing match funding of £49.5m. This indicates a total investment in RDP LEADER projects of over £132m.
- There were **636 beneficiaries** of diversification into non-agricultural activities, representing a total volume of investment of almost £38m.
- **447 micro enterprises** supported under the business creation and development scheme, representing a total volume of investment of over £20m.
- **251 tourism actions** supported, with a total volume of investment of over £22m.
- **228 projects** supported under basic services for the economy and rural population, representing a total volume of investment of £37m.
- **257 villages** benefitted from the village renewal and development scheme, with a total volume of investment of £11m.
- **78 rural heritage actions** were supported under the conservation and upgrading of the rural heritage scheme, with a total volume of investment of £8m.
- **£6.5m** was invested to improve access to rural broadband ensuring that **17,094 rural businesses** and rural dwellers now have a connection to improved Broadband services.

Axis 5 contains the Technical Assistance budget for the Programme which used for the preparation, management, monitoring, evaluation, information and control of the Programme. Total public expenditure under this Axis was **£5.1m.**

Conclusions

Analysis of the Measures chosen to meet the needs identified at the outset of the programming period concludes that they were broadly appropriate and that in many cases actions were taken throughout the programming period to refine schemes in the light of changing economic circumstances.

Although some of the schemes across the programme did not meet all of the output targets set, it is clear that there was a high level of scrutiny and active involvement from the Managing Authority and stakeholders in the Programme Monitoring Committee. This resulted in regular changes to the programme resource allocations and scheme criteria in order to maximise the benefit of the programme.

Despite the fact that there was clear evidence of many successful outcomes associated with the NIRDP interventions, it is also the case that there was room for improvement in three keys areas:

- Improving **Communication, Promotion and Targeting** to raise awareness and access to the Programme for potential beneficiaries and to ensure the administration and processing of applications is effective and efficient.
- Development of timely and concise **Guidance, Procedures and Direction** to aid effective implementation of the programme in line with the overarching Programme objectives and the LEADER local development strategies.
- Setting of relevant targets and baselines and developing consistent guidance on measurement to ensure the effective **Monitoring and Evaluation** of the Programmes achievements.

Recommendations

The following recommendations have been developed for the future delivery of NIRDP funding.

Communication, Promotion and Targeting

Recommendation 1

A consistent and structured approach should be taken by DAERA and Delivery Agents to raise awareness of the programme and ensure eligibility requirements are fully publicised and understood.

Recommendation 2

Managing Authorities should consider the use of animation funds for LEADER Local Action Groups (LAGs) to help with the development of quality applications.

Recommendation 3

In order to avoid ineligible applications it is recommended that DAERA host workshops with potential applicants prior to, or soon after the opening of calls.

Recommendation 4

Resources should be targeted to specific areas if there was evidence of lower uptake (as in the case of the agri-food processing schemes in the West of Northern Ireland).

Recommendation 5

Consideration should be given to carrying out needs analyses to identify gaps in the market place that greater co-operation in the agri-food supply chain could eradicate.

Recommendation 6

Supply chain group facilitators and mentors should have a broad range of skills and be matched to groups accordingly.

Recommendation 7

There should be clear demarcation between the roles of facilitator and mentor. (A facilitator can also be a mentor with another group providing all the conditions are met).

Recommendation 8

Greater engagement and feeder events should take place between the Department and stakeholders focusing on areas with potential for greater agri-food co-operation.

Guidance, procedures and direction

Recommendation 9

LAGs should be actively involved in the development of local strategies and adopt a consistent approach to reviewing and amending these as necessary.

Recommendation 10

LAGs should have more authority regarding budgets and themes and be more flexible in relation to changes in projects.

Recommendation 11

LAGs should report through the eleven district council structures and the Joint Council Committees structure should be removed.

Recommendation 12

Within LEADER there needs to be greater clarity of roles and responsibilities and provision of appropriate training to equip all involved to carry out their roles effectively.

Recommendation 13

DAERA should set a limit for the amount of the time during which intensive support will be available to the LAGs.

Recommendation 14

Consideration should be given to greater use of “staggered calls” for applications as well as open-ended calls for some of the smaller Measures.

Recommendation 15

Ideally guidelines for the programme should be released before the first calls for applications to enable staff to be trained if required and be in a position to instruct applicants correctly.

Recommendation 16

Guidelines should be kept as simple as possible and changes/updates kept to a minimum.

Recommendation 17

Administration and documentation in relation to the programme, especially application forms, should be as straightforward as possible while ensuring the relevant and appropriate data is collected. In the case of the LAGs, forms should also link to the local strategies.

Recommendation 18

A consistent system of checks, (such as ensuring that statutory approvals are in place or that match funding is available), should be implemented to ensure that speculative, ineligible applications are quickly identified and rejected.

Recommendation 19

Consideration should be given to introducing simplified application procedures for smaller projects.

Recommendation 20

DAERA should take a more pro-active role in helping LAGs to develop co-operation projects which could be pursued early in the programme.

Recommendation 21

LAGs should have clear plans for networking and cooperation activity embedded in their local strategies.

Recommendation 22

Greater use should be made of online training across the programme and the use of incentives such as eligibility for entry to schemes or additional selection points to increase uptake.

Recommendation 23

Consideration should be given to offering greater incentives to encourage older farmers to retire and younger farmers to enter the industry.

Recommendation 24

DAERA should consider developing a database for Frequently Asked Questions (FAQs).

Recommendation 25

Checks should be made to ensure that larger companies cannot secure investment outside NIRDP funding.

Recommendation 26

The scoring process for capital grant awards in the agri-food processing sector should continue to ensure the best outcome for agricultural producers and rural communities in addition to the processors.

Recommendation 27

Afforestation financial support should be increased to a level that will encourage farmers to convert large areas of land to forestry use should the current levels of support set out by the EU for 2014-2020 prove insufficient.

Recommendation 28

Higher rates of support should be offered for coniferous tree planting.

Recommendation 29

Financial Support should only be available for farmers with land in Severely Disadvantaged Areas and this rate should be monitored to ensure overcompensation does not occur.

Monitoring and Evaluation

Recommendation 30

Targets should be set for land under agri-environment and species specifically targeted by agri-environment management agreement actions.

Recommendation 31

Baselines within agri-environment should be taken at start and end of programme period for land being managed and not being managed to enable assessment of impact.

Recommendation 32

Recommendations 30 and 31 should also be applied to land under High Nature Value (HNV) management agreements.

Recommendation 33

There should be consensus reached and guidance issued from DAERA at the start of the Programme on definitions to be used and how indicators are to be measured, for example, what is the definition of a “job created”.

Recommendation 34

To ensure that consistent, high quality information and coverage of EU monitoring and evaluation requirements is available for future programme evaluations, comprehensive guidance should be issued on the content and approach for evaluations of measures, schemes and LAGs and that proposals for these are systematically checked.

Recommendation 35

Participant/Beneficiary survey questionnaires should have consistent elements which can be aggregated. Where survey questionnaires are used to establish a scheme’s performance against the EU common impact indicators, questions must be included that specifically refer to the indicators.

Recommendation 36

It is recommended that DAERA develop an effective means of assessing, monitoring and changing/improving the environmental impact of individual projects and the programme.

Report Abbreviations

AE	Agri- environment
AFBI	Agri-Food and Biosciences Institute
AHWNI	Animal Health and Welfare Northern Ireland
BVD	Bovine Viral Diarrhoea
BDUK	Broadband UK
CAFRE	College of Agriculture, Food and Rural Enterprise
CAP	Common Agriculture Policy
CARP	Countryside Agri Rural Partnership
CEQs	Common Evaluation Questions
CMEF	Common Monitoring and Evaluation Framework
CSL	Countryside Services Limited
DAERA	Department of Agriculture Environment and Rural Affairs
DARD	Department of Agriculture and Rural Development
DCAL	Department of Culture Arts and Leisure
DETI	Department of Enterprise, Trade and Investment
DFP	Department for Finance
DPA	Development Path Analysis
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EC	European Commission
EERP	European Economic Recovery Plan
EQIA	Equality Impact Assessment
ERDF	European Regional Development Fund
EU	European Union
ExCO	Expert Committee
FAQs	Frequently Asked Questions
FIT NI	Fasttrack to IT NI
FFO	Family Farm Options
FMP	Farm Modernisation Programme

FNMS	Farm Nutrient Management Scheme
GAEC	Good Agricultural and Environmental Compliance
GVA	Gross Value Added
H&S	Health and Safety
HNV	High Nature Value
ICT	Information and Communication Technology
JCC	Joint Council Committee
KPI	Key Performance Indicator
LAG	Local Action Group
LEADER	Liaison Entre Action de Developpement de L'economie Rurale
LFACA	Less Favoured Areas Compensatory Allowances
LGD	Local Government District
LoO	Letter of Offer
MDG	Marketing and Development Grant
METS	Manure Efficiency Technology Scheme
MTE	Mid Term Evaluation
NICEI	Northern Ireland Composite Economic Index
NICMS	Northern Ireland Countryside Management Scheme
NIEA	Northern Ireland Environment Agency
NINIS	Northern Ireland Neighbourhood Information Survey
NIRDP	Northern Ireland Rural Development Programme 2007-2013
NISRA	Northern Ireland Statistical Research Agency
NRN	National Rural Network
OFCOM	Office of Communication
OFMDFM	Office of First Minister and Deputy First Minister
OFS	Organic Farming Scheme
OMS	Organic Management Option
PAYE	Pay As You Earn
PMG	Processing and Marketing Grant
PPE	Post Project Evaluation

PSEQs	Programme Specific Evaluation Questions
QES	Quarterly Employment Survey
RDP	Rural Development Programme
RPA	Review of Public Administration
SEA	Strategic Environmental Assessment
SCDP	Supply Chain Development Programme
SFP	Single Farm Payment
SME	Small and Medium sized Enterprises
SRC	Short Rotation Coppice
SWOT	Strengths Weaknesses Opportunities and Threats
TIFF	Total Income from Farming
UAA	Utilisable Agricultural Area
VAT	Value Added Tax

2.0 Introduction

2.1 Purpose of Report

1. The Northern Ireland Rural Development Programme (NIRDP) 2007-2013 was approved by the European Commission on 24 July 2007 and under Commission decision 27/IX/2007 (C(2007)4411 final). The programme closed on 31 December 2015, with the 2016 EAFRD 2007 – 2013 Closure Certified Accounts being submitted to the European Commission on 27 June 2016. The total European allocation to the 2007-13 programme was approximately €329.5m and final eligible expenditure under the programme was €329,260,835 which represents expenditure amounting to 99.92% of the allocation available. The sterling equivalent to the end of 2015 showed that the total public expenditure was under the programme was £506m (including national funding).
2. Ex post evaluation of Rural Development Programmes is a legal requirement under Council Regulation (EC) No 1698/2005 and the overall aim is to improve quality, efficiency and effectiveness. The ex post evaluation of the NIRDP is the final part of ongoing evaluation of the 2007-2013 programming period and the evaluation has built upon all monitoring and evaluation activities conducted throughout the programme implementation period. It focuses on both the European Agricultural Fund for Rural Development (EAFRD) and the Northern Ireland Executive funds delivered through the NIRDP over the period 2007-2013.

2.2 Structure of Report

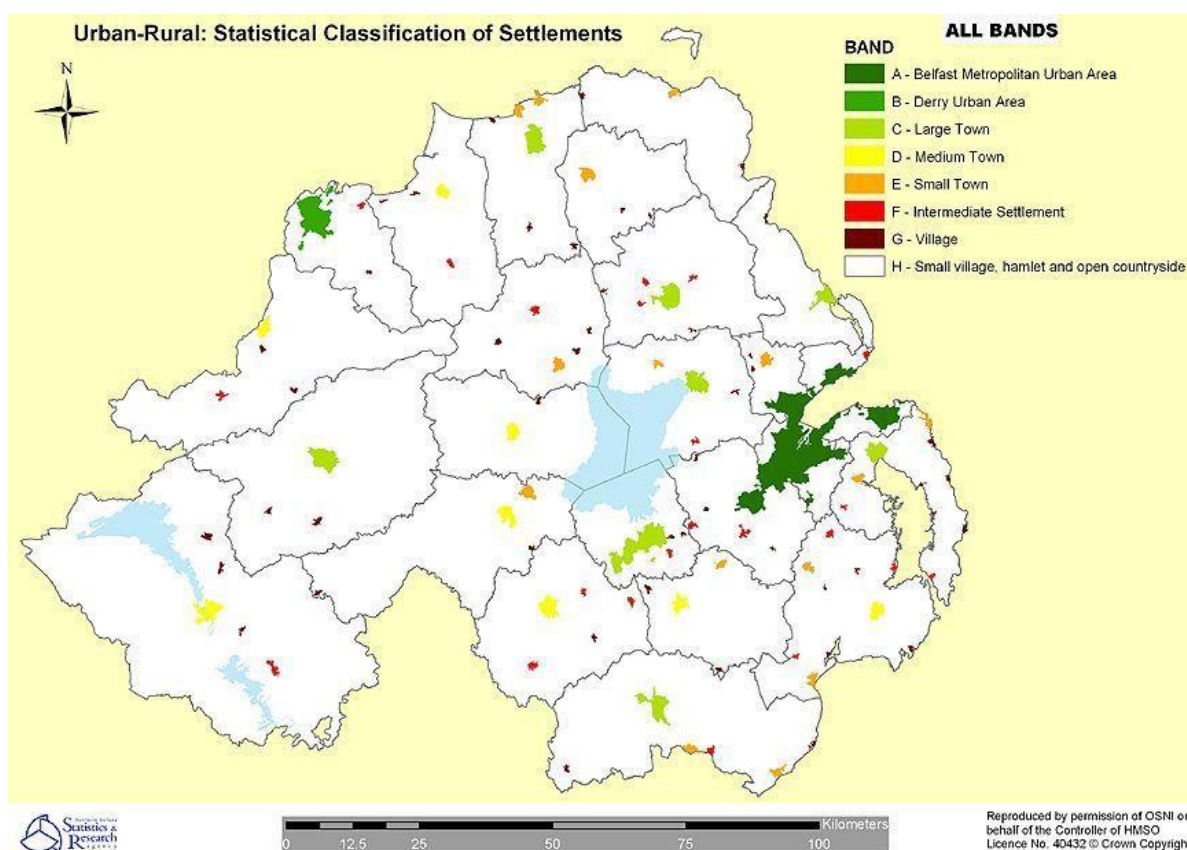
The evaluation report consists of 7 chapters:

Chapter 1	Executive Summary
Chapter 2	Introduction
Chapter 3	Evaluation Context
Chapter 4	Methodological Approach
Chapter 5	Description of the Programme, Measures and Budget
Chapter 6	Answers to Evaluation Questions
Chapter 7	Conclusions and Recommendations

3.0 The Evaluation Context

3.1 Northern Ireland as a region

1. Northern Ireland is one of four regions in the United Kingdom (UK). It is bounded by the Atlantic Ocean to the North, the North Channel and Irish Sea to the east and shares a land border with Ireland to the South and West. Northern Ireland covers an area of some 1.4m ha and at the beginning of the programming period in 2007 had a total population of 1.7m (approximately 2.5% of the UK total). The overall population density was estimated at 125 persons per square kilometre. While around one third of the population lived in the Greater Belfast area, most of the remainder were found in small towns, villages and more remote rural areas.



3.2 Governance of Northern Ireland

2. As part of the United Kingdom, Northern Ireland is subject to the authority of the UK Parliament. The UK Government retains the power to legislate on constitutional and security matters, and areas such as policing, prisons, criminal justice and relations with the European Union. However, following the Belfast Agreement in 1998, the UK Government transferred certain powers to the Northern Ireland Assembly.

3. The Northern Ireland Assembly, established as a result of the Belfast Agreement in 1998, has 108 members that are elected by proportional representation. The Assembly is the prime source of authority for all devolved responsibilities and has full legislative and executive authority. The executive authority of the Assembly is discharged through an Executive Committee comprising a First Minister and deputy First Minister and Ministers with Departmental responsibilities. The membership of the Northern Ireland Executive is drawn from all the main political parties in Northern Ireland.
4. In October 2002, a breakdown in trust between Northern Ireland's political parties led to the suspension of the Northern Ireland Assembly by the UK Government. Direct Rule from the UK Government was re-instated and NI government departments were under the direction of a team of Direct Rule Ministers. The NI Assembly was recalled by the Secretary of State in May 2006. In October 2006, the St Andrews' Agreement provided a timetable for actions leading to the possible restoration of the NI Assembly. Elections took place on 7 March 2007 and the NI Assembly was restored on 8 May 2007.
5. The system of local government in operation up to 31st March 2015 consisted of a single tier of 26 district councils that varied considerably in area, resources and population. There were some 580 councilors who were elected for a 4-year term of office under proportional representation. District councils had responsibility for the provision and management of a range of local services. They could nominate representatives to sit as members of various statutory bodies administering regional services and they represented the views of their areas in consultation exercises on central government matters such as planning, roads and housing.
6. In the aftermath of the Good Friday and St Andrews Agreements, which brought and restored devolution to Northern Ireland, several issues remained unresolved by the political parties. In 2014 talks between the British and Irish Governments and the main political parties in the NI Executive culminated in the Stormont House Agreement, which was published on 23 December 2014. Whilst addressing other major issues, the Agreement slightly altered the structure of the Northern Ireland institutions with a commitment to reduce the number of Stormont departments from twelve to nine by the 2016 election.
7. On 9 May 2016 the Department of Agriculture and Rural Development (DARD) became the new Department of Agriculture, Environment and Rural Affairs (DAERA). The new department brought together existing functions from DARD (except Rivers Agency), Environment and Marine Group from the Northern Ireland Environment Agency (NIEA), Inland Fisheries from the Department of Culture Arts and Leisure (DCAL) and the Sustainability Function from the Office of the First Minister and Deputy First Minister (OFMDFM). A list of the Government Departments from May 2016 is shown in Appendix 1.

8. For the purposes of this report the ‘department’ is referred to as DARD as the Managing Authority for the 2007-2013 Rural Development Programme. The report recommendations are directed to DAERA as the Managing Authority for the 2014-2020 RDP.

3.3 General Socio-Economic Context at the Beginning of the Programme

9. At the beginning of the programming period approximately 65% of the Northern Ireland’s 1.7m inhabitants lived in urban areas and 35% in rural areas¹. Of the rural population 15.5% lived in accessible rural areas and 19.5% lived in less accessible rural areas.

Table 1 – Northern Ireland Population by Area and Age

Area	<16 years old %	16 – 60 years old %	>60 years old %
Accessible rural areas	23.3	59.4	17.3
Less Accessible rural areas	25.4	58.2	16.4
Urban areas	23.1	58.8	18.1

10. As can be seen from the table above the age structure of the rural population was similar to that in urban areas. However, based on the 2001 Census, the gender breakdown shows that the rural population had a slightly higher proportion of men to women than the NI population as a whole.

Table 2 – Northern Ireland Population by Gender

Gender	Rural	NI
% male population	50.6%	48.7%
% female population	49.4%	51.3%
Total population	100%	100%

11. Weekly household income figures for 2002-2003 indicated that the highest levels were found in accessible rural areas at £427 per week, compared to £402 in Belfast Metropolitan Urban area, £382 in less accessible rural areas and £362 in other

¹ Report of the Inter-departmental Urban-Rural definition group: Statistical Classification and Delineation of Settlements, NISRA February 2005

urban areas. However it should be noted that rural households tend to be larger than those in urban areas.

12. However when the average gross weekly earnings of individuals were compared, a different picture arose. The average gross weekly earnings of people in rural areas were consistently below those of people living in urban areas over the years from 2001 to 2006. There was no strong evidence to indicate that the gap between rural and urban weekly earnings was narrowing (or widening) over time. Nevertheless, although average gross weekly earnings increased in 2006 in urban and rural areas, the lowest rate of growth occurred in less accessible rural areas.

Table 3 - Average Gross Weekly Earnings per Person (£ per week)

	2001 (£)	2002 (£)	2003 (£)	2004*	2005*	2006*
Urban	372.80	385.58	396.27	427.60	434.80	464.25
Accessible Rural	350.14	356.48	364.65	393.36	411.29	441.74
Less Accessible Rural	322.81	346.68	360.58	375.51	388.68	405.09

Note: LGD based definition of Rural Areas is used. Source: NISRA (NINIS website: <http://www.ninis.nisra.gov.uk/>)

*Survey methodology changed in 2004 therefore data previous is not directly comparable. Source: DETI, Annual Survey of Hours and Earnings.

13. The percentage of people in full-time employment was higher in urban areas (40%) compared to rural areas (36%) and, while the percentage of people who were self-employed was considerably higher in rural areas (12%) compared to urban areas (5%), the proportion of people who were unemployed was slightly lower in rural areas. In rural areas 43.12% of adults had no qualifications, compared to 40.85% in urban areas. This trend was the same at all levels of educational attainment.

Agriculture Sector

14. At the beginning of the programming period agriculture played a more important role in the economy of Northern Ireland than was the case in the UK as a whole. However, the relative contribution of agriculture to the economy in Northern Ireland had halved during the previous 15 years.
15. The total Northern Ireland land area was 1.4 million hectares, with approximately 80% in agricultural and forestry use. The number of farms in Northern Ireland had fallen by a third since 1980, from 42,000 to just over 27,000 in 2005. This reflected the on-going re-structuring of the industry in response to rising labour productivity and the decline in the relative price of agricultural commodities.
16. The average farm size in Northern Ireland was 38 ha - smaller than the UK average of 56.6 ha, but about double the EU15 average of 18.7 ha. In Northern Ireland, 87%

of farms were categorised as small or very small. Dairy farms accounted for the majority of large farms, whilst most of the very small farms were cattle and sheep farms. Agriculture in Northern Ireland was predominantly grass-based, with dairy, beef and sheep production accounting for 81% of NI aggregate gross margin.

17. In 2000 87% of farmers in Northern Ireland had only practical experience of farming, with nine per cent having received basic agricultural training and four per cent having full agricultural training. By 2005 figures indicated 83% of farmers had only practical experience with 13% having basic agricultural training and four per cent having full agricultural training². This represented an improvement over the five year period however this may have been due to those without training leaving the industry.
18. In 2005, 51% of farmers were aged 55 and over, with only 25% under 45 years of age². The age profile of farmers had not changed significantly over the 1993 - 2003 period with 29% of farmers 65 years old or over in 1993 and 28% 65 years old or over in 2003. Eight per cent of farmers were under 35 years old in 1993 and seven per cent were under 35 years old in 2003. The age breakdown of farmers in Northern Ireland was similar to the breakdown at EU-15 level.
19. The Less Favoured Areas (LFA) (so designated under EU legislation largely as a reflection of their agricultural production characteristics) accounted for 70% of the farmed land in Northern Ireland. The LFAs were further sub-divided into Severely Disadvantaged Areas (SDA) - 456,000 ha - and the Disadvantaged Areas (DA) - 264,000 ha. There were 19,000 farm businesses in the LFA in 2005, representing 70% of all farms in Northern Ireland. They accounted for 67% of the region's full-time farmers and 72% of its part-time farmers. There were significant differences between the pattern of farming in lowland areas and that in the LFA. Some 80% of Northern Ireland's 2.1m sheep were farmed in the LFA, with a similar proportion of the region's 297,000 beef cows. However, LFA farms accounted for only 44% and 59% of the region's pigs and poultry respectively.

Food and Drinks Sector

20. The agri-food industry comprises agriculture and the food and drinks processing sector. In 2004, the food and drinks processing industry contributed 2.1% of total gross value added in Northern Ireland. The total value of sales from the food and drinks processing sector was £2.4 billion in 2004 with beef and milk product sales accounting for almost 50% of this total. Around 62% of those sales were to destinations outside Northern Ireland, with just under two thirds of them going to Great Britain.

² EU Farm Structure Survey (2005), NI, DARD

Rural Businesses

21. Northern Ireland was a small business economy, with micro businesses (those with less than 10 employees) accounting for 88% of the total number of firms. In 2005, there were around 55,265 businesses in Northern Ireland that were registered for Value Added Tax (VAT). Businesses were legally obliged to register for VAT once their turnover exceeded £58,000. Approximately 23% of businesses were located, or had their head offices, in urban areas.
22. Table 4 shows that agriculture was predominant in the Accessible Rural and Less Accessible Rural areas, with 29% and 67% of Agricultural VAT registered businesses in these zones respectively. Construction and Transport had a slightly higher than average concentration in rural areas. Finance was heavily skewed to the urban zone, but this to some extent reflected the location of head offices in Belfast and took no account of branch networks across the region.

Table 4 - VAT registered enterprises in Northern Ireland by industrial group, Urban – Rural classification, 2005 ^{1,2,3}

	Urban	Accessible Rural	Less Accessible Rural	Total
	%	%	%	Number
Agriculture (incl. Fishing)	5	29	67	16,615
Production	25	31	43	4,020
Construction	19	33	48	8,085
Motor Trades	22	34	44	2,285
Wholesale	34	32	34	3,175
Retail	34	29	38	6,040
Hotel & Catering	34	28	38	3,090
Transport	19	33	48	2,055
Post & Telecom	38	33	25	240
Finance	62	19	12	130
Property & Business Services	49	25	26	7,350
Education	48	34	21	145
Health	33	27	40	260
Public Admin & Other Serv.	42	31	27	1,785
All Categories	23	30	47	55,265

1. Many smaller farm businesses voluntarily register for VAT, as farmers do not charge VAT on most sales and benefit by reclaiming VAT on input costs. In contrast many smaller businesses in other sectors of the economy will not voluntarily register.
2. It should be noted that firms operating from more than one site, are normally only recorded in the area where their head office is located. Coverage includes both companies and the self-employed.
3. Source: Derived from UK Business: Activity, Size and Location, 2006 (National Statistics website: <http://www.statistics.gov.uk>)

Rural Infrastructure

23. Rural areas were characterised by a very wide diversity of socio-economic situations. Over the previous 20 years, the composition of the rural community had changed considerably, particularly near larger urban centres, as more people chose to live in the countryside and travel longer distances to work. When taken with a rising population, this had increased pressure for improved transport networks and better public services in these accessible areas. It had also created opportunities for more retail outlets and consumer services. Less accessible areas did not witness these changes to the same extent. However, they also did have rising populations and an expectation that public services should be provided in an equally accessible manner and to the same standard as in urban areas while taking due account of the particular needs and circumstances of those living in these areas.
24. Lack of economic opportunities, networks and access to training infrastructure were a particular problem for women and young people in more remote rural areas. With high average levels of deprivation in six of the seven domains within the Northern Ireland Multiple Deprivation Measure (i.e. income, employment, health and disability, education skills and training, proximity to services and living environment), less accessible rural areas faced particular challenges that needed to be addressed. The Department's report "A Study on Rural Policy" set out the baseline position and the needs of rural areas in Northern Ireland.³
25. There was a high degree of residential segregation in rural areas and up to 87% of rural communities were classified as "single identity". The past conflict had increased polarisation between the two main communities and reduced the opportunities for building cross-community relations.
26. Farming communities were also changing, with fewer farms being economically sustainable without an external source of income and a consequent downward pressure on farming's level of employment. The preceding years had witnessed major reform in agricultural support policy: the radical Common Agricultural Policy (CAP) reform agreement of 2003 had fundamentally altered the economics of agricultural production. The decoupling of direct EU support from production had freed farming to respond to the demands of the market place and its customers. This posed a major adjustment challenge to the industry.

The Rural Environment

27. Lowland landscapes amounted to 67% and upland landscapes 33% of Northern Ireland's 1.4m ha. Of the Utilisable Agricultural Area (UAA) of 1,028,500ha, 70% was designated as Less Favoured Area (compared to an EU average of 44%, and a UK average of 46%). With 80% of the Northern Ireland landmass in agricultural

³ 'A Study on Rural Policy' - Department of Agriculture and Rural Development, March 2005

and forestry use, agriculture had a significant impact on the flora and fauna of the rural environment, with much of the rural landscape reflecting centuries of agricultural activity. Characteristic habitats were perennial ryegrass and other agricultural grassland. Covering a smaller area, mainly in the uplands, was the ecologically important wet bog. Other, less widespread habitats of particular importance for their biodiversity were calcareous grassland, species-rich grasslands, broadleaf semi-natural woodland, heath, and fen. Hedges and earth (or 'sod') banks were common characteristic elements of the countryside. Key issues identified by the Northern Ireland Countryside Survey in 2000 included the widespread loss of semi-natural habitats and field boundaries. This had reduced the biodiversity and character of local landscapes, with important consequences for wildlife such as hares, bats, birds and butterflies. Habitats that had decreased most were wet bog, species-rich wet grassland and other agricultural grassland.

Habitat, Watercourses and Agricultural Pressures

28. Some 40 priority habitats were identified for Northern Ireland. This included 37 of the UK list, with a few of them being very well represented, e.g. fens and raised bogs. Drainage, peat-cutting and over-grazing were the major factors in the reduction of the extent and quality of peatlands in Northern Ireland. Most had been cut to provide fuel. Overgrazing of blanket bogs had become a problem in recent years due to increase in upland sheep. Some non-native species presented a threat to biodiversity when they were in competition with native species or caused the introduction of disease.
29. Many of Northern Ireland's watercourses had been physically altered by drainage schemes, water abstraction, and impoundment to create reservoirs, navigation, fisheries management and fish farming. The lowering of water levels in the largest lakes had an adverse impact on the biodiversity of such sites. Eutrophication was a problem in Northern Ireland's waters.
30. The report 'Ammonia Monitoring in Northern Ireland (UKPIR04)' (Scotland & Northern Ireland Forum for Environmental Research, June 2004)⁴ suggested that sensitive habitats in Northern Ireland were under significant threat from ammonia emissions from agriculture. The nature of the effects expected included changes in plant species composition, such as increases in grasses and a decline in heather species, sensitive woodland herbs, mosses and lichens.
31. The intensification of agriculture had led to a net loss of habitats, and a decline in biodiversity and landscape character however at the end of 2005 a total of 331,000 ha (32%) of farmland was registered in an agri-environmental scheme in Northern Ireland. As a proportion of total farmland, this closely mirrored the UK average.

⁴ Ammonia Monitoring in Northern Ireland (June 2004) – Scotland and Northern Ireland Forum for Environmental Research <http://www.sniffer.org.uk/files/5013/4183/7995/UKPIR04.pdf>

Land under organic management in Northern Ireland represented only 0.62% of the utilisable agricultural area (UAA) in 2004. The corresponding figure for UK was 4.25% of UAA.

32. In the mostly grass-based agricultural systems of Northern Ireland, the soil organic matter level ranged from 8-20% depending on previous cropping. Soil compaction was not a widespread problem on soils in Northern Ireland and damage could normally be repaired by ploughing or subsoiling. Soil erosion by wind and water had not been a major problem in Northern Ireland.

Native Habitat and Forestry

33. In the past most of Northern Ireland's natural vegetation was woodland and many terrestrial native species were dependent on this habitat. However Northern Ireland was one of the least wooded areas in Europe at the outset of the programme with only six per cent of the land area under tree cover (85,000 ha, of which 19,000 ha was broadleaved woodland) compared to almost 12% of the UK as a whole. In Northern Ireland, the area of state forestry had remained relatively constant since 1995 at around 61,000 ha. However, the area of privately owned forest had increased by 26% over the same time period to 24,000 ha.

3.4 Policy obligations

34. *Shaping our Future*⁵ was published in 2005 and is a regional development strategy which provides a strategic and long-term framework for the future development of Northern Ireland up to the year 2025. It takes account of key driving forces such as population growth, the increasing number of households, transportation needs, economic changes and the spatial implications of a divided society.
35. The Department of Agriculture and Rural Development's Strategic Plan 2006-2011⁶ set out the Department's long-term strategic direction over the period. Sustainable development (development that meets the needs of the present without compromising the ability of future generations to meet their own needs) was seen as the overarching driver of change. The plan focused on a number of goals which were to address key issues and contribute to the achievement of the Department's vision of Northern Ireland as a thriving and sustainable rural community. These included the ability of the agriculture industry to be competitive in the market place, the desire to strengthen the social and economic infrastructure of rural areas and the need to develop a more sustainable environment.
36. *First Steps towards Sustainability*⁷ was published in 2006 and is a sustainable development strategy for Northern Ireland which provided a framework to refocus efforts on building sustainable communities. The Strategy's guiding principles

⁵ *Shaping our Future* (2005) - Department of Regional Development, Northern Ireland

⁶ Department of Agriculture and Rural Development Strategic Plan (2006), ISBN 1 85527 845 6

⁷ *FirstSteps Towards Sustainability* - (May 2006) Department of the Environment, Northern Ireland

included living within environmental limits, ensuring a strong, healthy and just society, achieving a sustainable economy, promoting good governance, using science responsibly and promoting opportunity and innovation. Priority areas for action included climate change and energy, sustainable consumption and production, protection of natural resources, environmental enhancement, sustainable communities, governance for sustainable development and learning and communication.

37. In June 2006, the European Council launched its EU Sustainable Development Strategy⁸ which sets out a single coherent strategy on how the EU would more effectively live up to its long-standing commitment to meet the challenges of sustainable development. The Northern Ireland Biodiversity Strategy⁹ published in 2002 set out how Government planned to do this over the period to 2016.
38. The aim of A Shared Future: A Policy Framework for Good Relations in Northern Ireland¹⁰, published in 2005, was to establish over time a shared society in which all individuals are considered as equals, where differences are resolved through dialogue in the public sphere and where all individuals are treated impartially.
39. Lifetime Opportunities¹¹ published in 2006 was the government's Anti-Poverty and Social Inclusion Strategy for Northern Ireland. Our Children and Young People – Our Pledge¹² published in 2006 was a ten year strategy for children and young people in Northern Ireland to ensure that, by 2016, all children and young people were fulfilling their potential. People and Place – a Strategy for Neighbourhood Renewal¹³ published in 2003, targets those communities throughout Northern Ireland which are suffering the highest levels of deprivation.
40. Ending Fuel Poverty: A Strategy for Northern Ireland¹⁴ published in 2004 was an important element of Government's policy of New Targeting Social Need. The Investment Strategy for Northern Ireland¹⁵ launched in December 2005, pledged sustained Government investment in a modern public infrastructure in Northern Ireland over a ten-year period between 2005 and 2015. The Regional Transportation Strategy 2002-2013¹⁶ emphasised the vital role of developing sustainable transport networks in order to facilitate economic development and improve quality of life.

⁸ EU Sustainable Development Strategy (9 June 2006) European Council Doc 10117/06

⁹ Northern Ireland Biodiversity Strategy (2002) - Environment and Heritage Service, Northern Ireland.

¹⁰ A Policy Framework for Good Relations in Northern Ireland (2005) Office of the First Minister and Deputy First Minister, Northern Ireland.

¹¹ Lifetime Opportunities (2006) - Office of the First and Deputy First Minister, Northern Ireland.

¹² Our Children and Young People – Our Pledge (2006) Office of the First and Deputy First Minister, Northern Ireland.

¹³ People and Place – a Strategy for Neighbourhood Renewal (2003) - Department of Social Development, Northern Ireland.

¹⁴ Ending Fuel Poverty: A Strategy for Northern Ireland (2004) - Department of Social Development, Northern Ireland.

¹⁵ The Investment Strategy for Northern Ireland (2005)

¹⁶ Regional Transportation Strategy (2002-2013)

41. The NI Government's three-year strategic plan for Developing a Successful Social Economy¹⁷ was launched in 2004 to develop the social economy through increasing awareness of the sector, establishing its value in the local economy, developing the sector and increasing its business strength and creating a supportive and enabling environment. Investing for Health¹⁸ published in 2002 contained a framework for action to improve health and well-being and reduce inequality by partnership working amongst Departments, public and voluntary bodies, local communities, district councils and social partners.
42. The strategic energy framework for Northern Ireland published by the Department of Enterprise, Trade and Investment set a firm target of 12% of electricity from renewable energy to be reached by 2012, with 15% of this coming from non-wind technologies¹⁹. DARD launched its Renewable Energy Action Plan on 29 January 2007.
43. During the programming period in 2008, the European Commission undertook a review of the Common Agricultural Policy (CAP). This "Health Check" of the CAP introduced a range of Measures to further reform, simplify and streamline the CAP and remove restrictions on farmers, thus helping them to respond better to signals from the market and to face new challenges. The review identified a number of new and ongoing challenges facing the agricultural sector such as climate change, risk management, bio-energy, water management, biodiversity and restructuring of the dairy sector and identified the rural development policy as one of the possibilities to deal with these changes. To allow Member States to support the increasing need to meet these new challenges, the European Commission increased the rates of Compulsory Modulation. As UK programmes were already delivering significant environmental benefits through the use of Voluntary Modulation, it was agreed that the latter should be decreased by an amount equivalent to the increase in Compulsory Modulation, resulting in no change to the UK's rural development budget.

3.5 Description of Evaluation Process

Scope

44. The Evaluation process as detailed in the Common Monitoring and Evaluation Framework (CMEF) created by The European Commission provides the framework for the evaluation of all rural development programmes. Under the CMEF, each Member State or region must evaluate its rural development programme through ongoing evaluation activities and formal mid-term and ex post evaluations. The

¹⁷ Developing a Successful Social Economy (2004) - Department of Enterprise, Trade and Investment, Northern Ireland.

¹⁸ Investing for Health (March 2002) - Department of Health, Social Services and Public Safety.

¹⁹ The strategic energy framework for Northern Ireland - Department of Enterprise, Trade and Investment.

formal evaluations are to be collated by the Commission to provide an evaluation of rural development interventions across the EU.

45. Each region of the UK has its own rural development programme and each is being evaluated separately. The ex post evaluation of the NIRDP is the final part of ongoing evaluation of the programming period of 2007-2013 and is built upon the monitoring and evaluation activities conducted throughout the programme implementation period. It focuses on the EAFRD and National Expenditure delivered through the NIRDP over the period 2007-2013. The establishment and running of the Rural Network for Northern Ireland was funded from national funds and not from NIRDP funds during the 2007-2013 programming period. A review of the Rural Network was carried out in 2015 and this review was also taken into consideration for the ex-post evaluation.
46. The ex-post evaluation evaluates the programme using the common indicators and common impact indicators identified in the CMEF for all rural development programmes. It also uses the latest simplified and reduced list of common evaluation questions proposed by the European Commission in light of lessons learned from the Mid-term Evaluation (Appendix 1). Additional NIRDP specific indicators and additional NIRDP specific questions are identified at Measure-level.

Objective

47. The report must meet the requirements of the European Commission and must take stock of the results, achievements, impacts, efficiency and effectiveness of the programme. The European Evaluation Network for Rural Development's Guidelines for the ex post evaluation of 2007-2013 RDPs explains that the evaluation should appraise:
 - all aspects covered by Article 86 of Council Regulation (EC) No 1698/2005 and Council Decision 2006/144/EC on Community strategic guidelines for rural development and Council Regulation (EC) 79/2009;
 - degree of utilisation of resources;
 - effectiveness of the programme;
 - efficiency of the programme;
 - socio-economic impact of the programme;
 - the programme's impact on the Community priorities;
 - factors contributing to success or failure of the programme; and
 - the Common Evaluation Questions.
48. Furthermore, the following aspects should also be appraised:
 - specific provisions (e.g. LEADER, National Rural Networks, Technical Assistance); and
 - programme specific evaluation questions.

Requirements

49. To meet the objectives the evaluator was required to work through four phases; structuring, observing, analysing and judging. In the structuring phase the evaluator was required to:
- work in close collaboration with DARD to gain an understanding of the task at hand;
 - examine detailed intervention logics for the NIRDP and individual Measures;
 - define the key terms of the evaluation questions; develop judgement criteria and links to each evaluation question to be answered;
 - examine existing indicators (common and programme specific) to be used in their assessment of the effectiveness, efficiency and relevance of the Measure and/or the programme.
 - review the data and information provided or ensured by DARD, identify data gaps and propose solutions on how to bridge them;
 - develop tools and approaches for gathering additional information and data required; and
 - establish the methodology for answering the common and programme specific evaluation questions.
50. In the observing phase the evaluator was required to:
- create the tools needed for the quantitative and qualitative analysis: interview guidelines, questionnaires, queries for extractions from databases, requests for maps, guidelines for case studies and any other data collection instrument deemed appropriate;
 - collect data and information needed for answering each evaluation question: databases, studies, identify and contact people to be interviewed, appropriate case study areas, conduct focus groups, etc;
 - describe the process of programme implementation over the programming period, composition of programmes, priorities and target levels, budget, financial execution, major modifications to strategy, structure and resource allocation; and
 - present quality checked values for each of the CMEF common indicators and programme specific indicators.
51. In the analysing phase the evaluator was required to:
- consider whether the establishment of appropriate typologies of Measures and/or beneficiaries could reduce the complexity of empirical analysis whilst still preserving the required level of detail;
 - process and synthesise the available data and information in line with chosen evaluation methods and where necessary, resolve remaining data gaps by modeling, extrapolations or other means; and assess against the counterfactual, as well as target levels; and
 - present estimations of the net effects of the programme.

52. In the judging phase, the evaluator was required to:
- answer all common and programme specific evaluation questions;
 - assess the effectiveness and efficiency of the programme;
 - assess Measures with respect to their balance within the programme;
 - judge the degree to which the Measures and the programme as a whole met their objective;
 - identify the factors that contributed to the success or failure of the programme; and
 - draft conclusions and recommendations based on the findings.

3.6 Previous Evaluations

53. As per Article 79 Council Regulation (EC) No 1698/2005, DARD as the Managing Authority was required to work with the Monitoring Committee to monitor the quality of the programme implementation. The regulation required monitoring to take place through Annual Progress Reports and 3 independent evaluations; the Ex-Ante Evaluation, Mid-term Evaluation and ex post evaluation.

Ex-ante Evaluation

54. The ex-ante evaluation was completed by BearingPoint in association with ADAS UK Ltd²⁰. and was presented to DARD in September 2006. The aim was to optimise the allocation of budgetary resources and improve programming quality.

Strategic Environmental Assessment

55. In order to assess the environmental impact of the proposed NI Rural Development Programme, DARD undertook a Strategic Environmental Assessment (SEA) in line with the requirements of European Directive 2001/42/EC and also the Environment Assessment of Plans and Programmes Regulations (Northern Ireland) 2004. The overall conclusion of the SEA was that the NIRDP should have a generally positive impact on the environment, although some Measures may have some potential to create negative impacts, for example, increased localised traffic flows, intrusion in the landscape and potential for damage to cultural heritage assets. However, it was felt that the positive effects upon the environment would outweigh any negative effects.

Mid-term Evaluation

56. The Mid-term evaluation of the NIRDP 2007-2013 Final Report November 2010²¹ indicated that since the start of the NIRDP, the Northern Ireland economy had gone through significant upheaval as a consequence of a housing boom, the economic downturn and the subsequent fragile recovery.

²⁰ Ex-ante Evaluation of the NIRDP 2007-2013 (2006) - BearingPoint in association with ADAS UK Ltd

²¹ Mid-term evaluation of the Northern Ireland Rural Development Programme (NIRDP) 2007-2013 (2010) – Northern Ireland Statistics and Research Agency

57. The Mid-term evaluation update published in March 2013 ²² (meeting the recommendation for an update evaluation made in the Mid-term Evaluation) confirmed that the economic climate had a direct impact on the performance of some schemes. The ongoing challenge of the economic situation in Northern Ireland was evidently a barrier to achieving some objectives.

Annual Implementation Reports

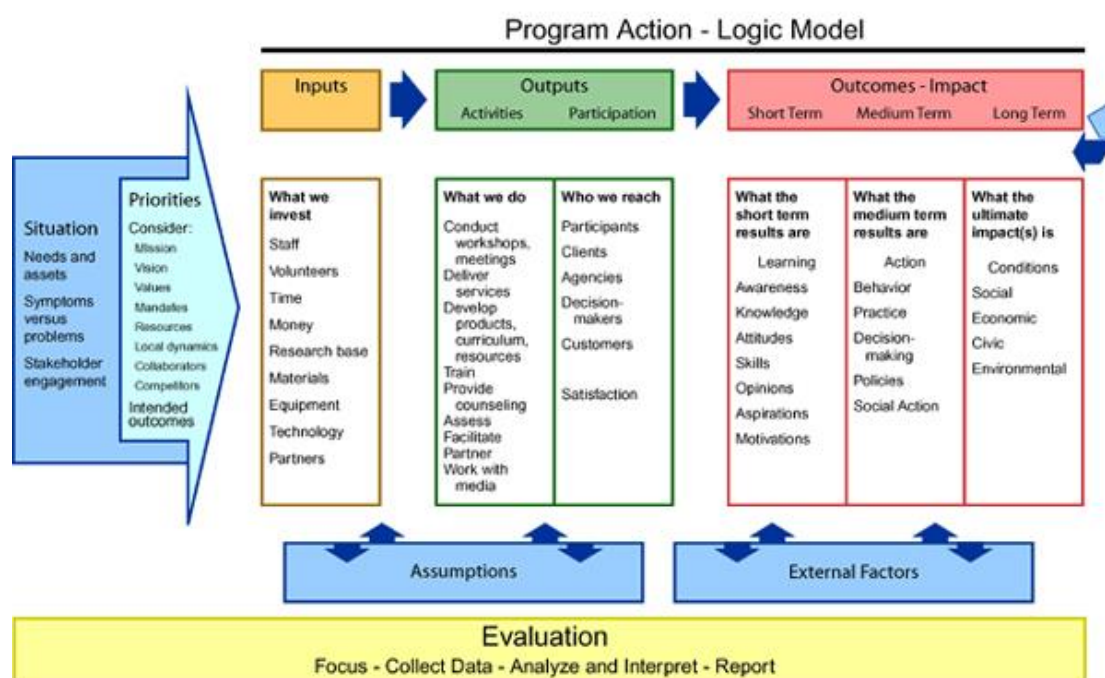
58. Annual Implementation Reports were a more regular component of the evaluation process, reporting every year from 2009 until 2015. These reports were based on a calendar year and provided a regular overview on the programme's status as well as ensuring it was on track for the agreed targets.

²² Northern Ireland Rural Development Programme (NIRDP) 2007 - 2013 Mid-term evaluation update (2013) – Northern Ireland Statistics and Research Agency

4.0 Methodological Approach

4.1 Explanation of the evaluation design and the methods used

1. The NIRDP 2007-2013 followed a logic model of programme development and evaluation as detailed below.



2. The following are the three main types of evaluation.
 - 1) Goal-based evaluation evaluates the extent to which a programme meets the predetermined goals or objectives.
 - 2) Process-based evaluation enables evaluators and policy makers to fully understand how the programme works - how it produces the results that it does.
 - 3) Outcome-based evaluation evaluates if the programme is really doing the right activities to bring about the desired outcomes.
3. Early stage evaluation activity for the NIRDP 2007-2013 focused on the process aspect of programme implementation. The evaluators are responsible through the ex post evaluation for carrying out a goal and outcome based evaluation of the NIRDP 2007-2013 and answering the common and programme specific evaluation questions as agreed in the terms of reference. Areas of the evaluation such as the assessment of the socio-economic context and the ongoing rationale for the NIRDP contribute to the outcome and goal based aspect of the evaluation.
4. The methodology used consisted of both desk based research and fieldwork. The European Evaluation Network for Rural Development's Guidelines for the ex post

evaluation of 2007-2013 RDPs were used as the template for the evaluation. The evaluation consisted of four key stages: **Structuring**, **Observing**, **Analysing**, and **Judging** as set out in the terms of reference.

5. During the **Structuring** phase the evaluators worked closely with DARD as the Managing Authority to develop a clear understanding of the programme, its Measures and their intervention logic, the evaluation questions and the evaluation tasks. Approaches were developed for gathering additional information and the data required to answer the common and programme specific evaluation questions.
6. In the **Observing** phase the tools developed for quantitative and qualitative data analyses were used. This included development of questionnaires and other data collection instruments deemed appropriate, such as guidelines for interviews and case studies. Data and information was collected from; desk based research of relevant policy papers, databases, research studies, interviews, case studies and two facilitated workshops with key informants. The evaluators also researched the process of programme implementation including priorities and targets, resource allocation and modifications due to challenges faced during the programming period.
7. In the **Analysis** phase the information contributing to the programmes evaluation was processed and synthesised and presented in a manner reducing complexity, while, maintaining the required level of detail for judgment. Remaining data gaps were resolved as appropriate and the data assessed to give estimations of the programme's net effects.
8. In the **Judging** phase the evaluators developed the answers to all the common and programme specific evaluation questions. This enabled an assessment of the effectiveness and efficiency of the individual Measures and the programme as a whole to be made including a judgment on the degree to which objectives were met. Further to this the evaluators considered the socio-economic impact and of the programme and its impact on Community priorities. The factors contributing to the success and failure of the programme were identified and, based on the findings, recommendations were made going forward into the new programming period.

4.2 Description of key terms

9. **The Common Evaluation Questions** (CEQs) (Appendix 2) are a set of questions to ensure that the essential impacts of RDPs and achievements towards Community priorities and objectives are analysed across the EU. The questions have been developed by the European Commission and comprise a set of questions for the Measures selected within each Axis and a set of programme level questions.

10. **The Programme-Specific Evaluation Questions (PSEQs)** (Appendix 2) are additional to the CEQs and were formulated by the Managing Authority for the evaluation of a specific element within the NIRDP.
11. Evaluation Questions are answered using judgment criteria and indicators. **Judgment criteria** specify the success of programme interventions and link the EQs, indicators and data to be collected. This enabled the evaluators to design robust methodological approaches, formulate answers based on qualitative and quantitative evidence in a structured manner, enhance transparency by making the judgment explicit, and improve the objectivity of the evaluation.
12. Target levels set at the start of the programming period, were generally developed based on previous experience/performance and were deemed to be achievable/desirable. They are a means of measuring how well or otherwise a Measure or intervention is performing.

4.3 Sources of data, techniques for data collection

13. The data for the ex-post evaluation was collected via the following means:
 - Quantitative Data Analysis.
 - Telephone survey of applicants.
 - Postal surveys of applicants/beneficiaries.
 - Interviews with Measure Managers and Managing Authority, as required.
 - Workshops with key informants.
 - Qualitative and desk research e.g. examining programme documentation and post project evaluations.
14. The quantitative and qualitative desk based research element of the evaluation utilised sources of existing data to allow the evaluators to build up a complete picture of the programme objectives, impacts and socio-economic challenges faced during implementation. The sources of existing data included:
 - Documentation (Previous Programmes, Current Programme, EU Guidelines, Other NI Structural Funds programmes and National Strategies).
 - Northern Ireland published socio-economic information.
 - Measure level post project evaluations.
 - Documentation as provided in terms of reference.
 - EU Database (application data, target groups – participation, monitoring information).
 - Managing Authority IT systems (Axis 2).
 - Managing Authority financial accounts.

15. Additional quantitative and qualitative data was collected (Appendix 3) by the evaluators to address information gaps and assess if the programme's objectives have been achieved, this included:
 - Developing and carrying out telephone surveys of applicants who have had both successful and unsuccessful outcomes.
 - Supplementing the above with interviews and/or case studies when required.
 - Carrying out two facilitated workshops with key informants.
16. **Key informants provided** expertise in four main areas: economic development/competitiveness in rural areas, public goods associated with rural land use, especially biodiversity and water quality, regulatory compliance and quality of life in rural areas. Selection of the key informants was based on a representation of varying view points and avoided affiliation to sectional interests.
17. The first workshop was held on 22 March 2016, early in the period in which the evaluation took place, and after the evaluation team had carried out its desk based scrutiny of the programme's intervention logic and objectives. This workshop took a cascaded approach where the overarching logic of the programme was confronted; then the SWOT was critiqued and finally the Measures and implementation approaches were subjected to scrutiny.
18. The second workshop took place on 27 October 2016, after the evaluation methods had been applied and all the indicators were available. This workshop explored with the key informants possible explanations behind more successful and less successful Measures.

4.4 Techniques for replying to the evaluation questions and arriving at conclusions.

19. When answering the Measure level questions information from the indicators, Post Project Evaluations (PPEs), surveys etc was considered alongside evidence from key informants and Measure managers to form an assessment of how effective the Measure had been at meeting the objective laid down at the beginning of the programme. This assessment was then considered in the light of other factors outside of the NIRDP such as the changing economic situation over the programming period. This helped to assess whether the success or failure could be attributed to the actions within the NIRDP and therefore to determine recommendations going forward or whether factors outside of the control of the NIRDP had an impact.
20. Answering the programme level questions was more difficult as in some cases an assessment had to be made of the change in the impact indicators over the programming period and the effect of outside factors had to be considered before an overall assessment could be made.

4.5 Limitations of Methodological approach

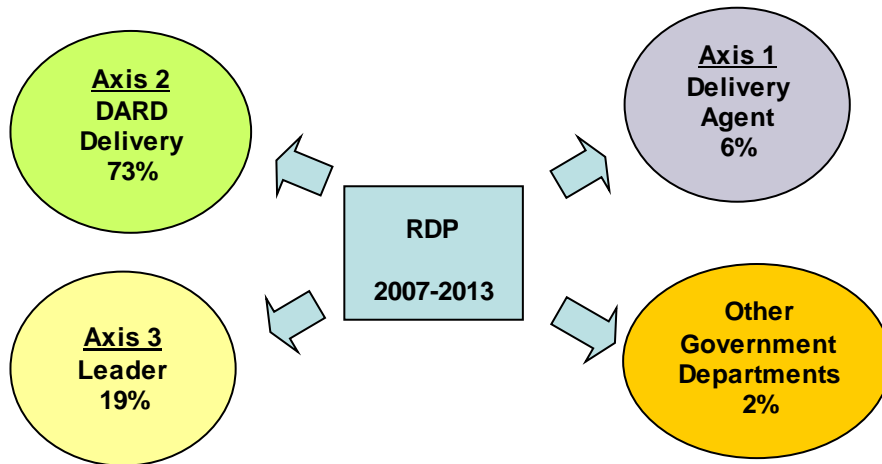
21. There were various issues which arose during the evaluation process. It was agreed at the beginning of the ex post evaluation that, where possible, the evaluation would focus on readily available information and other methods of data collection would be developed to fill any identified gaps. In light of this much of the desk-based research focused heavily on the PPEs which had been carried out on every project in the NIRDP 2007-2013. Whilst these PPEs generated a great deal of valuable information there was a wide variation in the quality of the information available and, in some cases, they had not been completed in time for this report.
22. With regard to the information available on programme indicators there were some instances where targets had not been clearly set out at the beginning of the process. In other cases information had not been gathered to measure progress against the targets set.
23. Analysis of Axis 2 Measures was especially difficult as there was a lack of baseline information making any attempt to quantify the difference over the programming period problematic. As already mentioned the evaluators carried out bespoke surveys to provide more information for Axis 2 Measures.

5.0 Description of Programme, Measures and Budget

5.1 Programme Administration and Governance

1. The NIRDP 2007 – 2013 resulted from the reforms of the Common Agricultural Policy (CAP) in June 2003 and April 2004. These reforms focused on rural development by introducing a new financial instrument and a single programme, the European Agricultural Fund for Rural Development (EAFRD). This instrument, which was established by Council Regulation (EC) 1290/2005, was aimed at strengthening the EU's rural development policy and simplifying its implementation. In particular, it was established to improve the management and control of rural development policy for the period 2007-2013.
2. Although the United Kingdom was the member state, the Commission agreed that England, Scotland, Wales and Northern Ireland could each design and implement their own rural development programme. As Managing Authority DARD was responsible for the development and delivery of the NIRDP. Rural Policy Branch were responsible for the Managing Authority responsibilities for oversight and the development of systems and processes to ensure the programme was managed in an efficient, effective and correct manner. Monitoring of the programme was overseen by DARD and the Programme Monitoring Committee. Rural Policy Branch acted as secretariat to the Programme Monitoring Committee and had responsibility for collating data to measure progress against targets and reporting to the Committee.
3. The NIRDP 2007-2013 had a series of relatively complex delivery structures which reflected to a large degree the diverse range of Measures and schemes that made up the programme. There were three main strands – DARD in house systems, secondary (outside) delivery bodies and the LEADER approach. A small proportion of the budget was also transferred to another government department for delivery.
4. Figure 1 shows that the main method of delivery (approximately 73%) used DARD's own resources and this was mostly managing the land based schemes under Axis 2 such as Less Favoured Areas, the Agri-environment Programme and forestry schemes. It also included some of Axis 1 such as the Processing and Marketing Grant scheme and parts of the Supply Chain Development Programme. DARD paid for the costs of delivering these schemes from its own resources and not from the Programme budget.

Figure 1 – Method of programme delivery shown by percentage of programme allocation.



5. Approximately 19% of the Programme budget was delivered through the LEADER ‘bottom-up’ approach. A further six per cent of the programme was delivered through an Axis 1 delivery agent including the Farm Family Options scheme and the Farm Modernisation Programme. The administration costs for using external delivery bodies were met from the Programme’s technical assistance budget.
6. Finally approximately two percent of the programme (rural broadband) was delivered in conjunction with the Department of Enterprise Trade and Industry.

Priorities

7. In 2004, the Department commissioned a major study of rural policy in Northern Ireland³. The study, which was completed in early 2005, examined the rationale for intervention in rural areas, assessed the impact of current policy and made recommendations for change. The study involved consultation with key stakeholders in Northern Ireland and took account of other major government initiatives and strategies such as the Northern Ireland Regional Development Strategy, ‘*Shaping Our Future*’⁵, and the Northern Ireland Review of Public Administration. It also examined the strategic approach taken to rural development in other parts of the UK, EU and beyond.
8. Subsequently the Department developed a Rural Strategy that drew on the findings of the ‘Study on Rural Policy’ and comments received during a process of public consultation. The Strategy covered the period 2007-2013 and sought to provide a broad strategic direction and framework for rural development policy in Northern Ireland. It fitted within, and was an integral part of, the broader DARD Strategic Plan 2006-11. A significant part of the Rural Strategy was to be delivered through the NIRDP. The overall theme of the Rural Strategy was “*diversifying the rural economy, protecting the rural environment and sustaining rural communities.*” It was structured around four main aims:
 - Creating a rural champion.
 - Improving performance in the marketplace.

- Conserving and investing in the rural environment.
 - Strengthening the social and economic infrastructure of rural areas.
9. The Department's vision for the NIRDP 2007-2013 was for a programme which protected and enhanced the rural environment and which contributed to the development of competitive and sustainable rural businesses and thriving rural communities. This rural development programme aimed to contribute to each of the three objectives detailed in Article 4 of the Council Regulation (EC) No 1698/2005, namely,
- Improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation (Axis 1),
 - Improving the environment and the countryside by supporting land management (Axis 2), and
 - Improving the quality of life in rural areas and encouraging diversification of economic activity (Axis 3).
10. The Department was aware of the drive towards delivery of the programme through local delivery mechanisms. Northern Ireland had been engaging in community-led rural development since the early 1990s and had already acquired valuable experience and expertise in this field. The NIRDP sought to draw on this local community-based capacity and on the knowledge acquired through managing three LEADER Programmes. This Programme was designed to exceed the EU requirements of delivering at least five per cent of the EAFRD contribution through local public-private partnerships.
11. There were a number of constraints imposed on the new programme which impacted on the level of activity which could be taken forward under each of the axes:
- Under certain Measures which provided support through multi-annual commitments (such as agri-environment schemes), there were commitments made under the 2000-2006 Rural Development Regulation Plan (Accompanying Measures) for Northern Ireland which needed to be paid out of the NIRDP funding package.
 - To ensure Member States developed broad and balanced programmes, the EU had imposed minimum levels of expenditure under each Axis.
 - Actions had to be identified as priority areas for intervention in the Community Strategic Guidelines, the UK National Strategy Plan, the Department's Strategic Plan 2006-2011 and the Department's Rural Strategy 2007-2013.
12. Against this background, the Department developed a rural development programme which was focused on assisting those living and working in rural areas. It also aimed to protect and enhance the rural environment, while enabling those engaged in rural activities, whether in agriculture, food, forestry or the wider rural

sectors to take advantage of new approaches and emerging technologies. It aimed to invest in the key resources of human and social capital, allowing rural areas to look to the future with increased confidence.

13. The programme provided an opportunity to deliver some of the Department's obligations under "First Steps towards Sustainability – a Sustainability Strategy for Northern Ireland"⁷. Measures under all three Axes sought to address some of the Strategy's objectives. It was also to act as a vehicle to help address some of the priority areas identified in "Lifetime Opportunities" (Government's anti-poverty and social inclusion strategy)¹¹ such as eliminating poverty in rural areas, tackling deprivation and eliminating social exclusion.

5.2 Measures and their Intervention Logic

Axis 1

14. Under Axis 1, Measures were designed to meet the objective of improving the competitiveness of the agriculture and forestry sectors through:
 - Providing farmers and farm families with bespoke and innovative vocational training and information actions.
 - Adding value to agricultural products through the application of appropriate technology together with sound manufacturing and environmental management practices.
 - Encouraging greater integration and collaboration between producers, processors and others in the food chain, improving the application of technology within the supply chain and improving the marketing capability of businesses.
 - Improving the application of technology in the forestry sector, encouraging greater integration and collaboration between producers, processors and others in the wood supply and renewable energy chains and improving the marketing capability of businesses.
 - Improving the competitiveness of agricultural and horticultural businesses through investment.
 - Supporting new collaborative initiatives in the agri-food and forestry sectors, leading to more effective and sustainable supply chains.
 - Comparing farm and horticulture businesses in NI through benchmarking.
15. The NIRDP was to meet these objectives by providing support under the following Measures:

Measure 1.1	Vocational Training and Information Actions
Measure 1.2	Adding Value to Agricultural and Forestry Products and Improving Marketing Capability
Measure 1.3	Modernisation of Agriculture Holdings
Measure 1.4	Supply Chain Development Programme

16. Axis 1 Measures were designed to complement one another through enabling participants to derive as much benefit as possible from the support provided. Training and Information schemes provided under Measure 1.1 were designed to equip farmers and their families with the skills and information required to make good decisions regarding the future of their business and also ensure the optimal uptake of support available across the other Measures.

Axis 2

17. Under Axis 2, Measures were designed to protect and enhance Northern Ireland's natural resources and landscapes in rural areas. In so doing, they were to contribute to the EU priority areas of:
- Biodiversity and the preservation and development of high nature value (HNV) farming and forestry systems and traditional agricultural landscapes,
 - Water, and
 - Climate change.
18. The Measures were to contribute to the implementation of the agricultural and forestry Natura 2000 network, to the Göteborg commitment to reverse biodiversity decline by 2010, to the objectives laid down in Directive 2000/60/EC establishing a framework for Community action in the field of water policy and to the Kyoto Protocol targets for climate change mitigation.
19. The Measures were designed to meet the Axis 2 objective of improving the environment and the countryside through:
- Promoting environmental services and practices.
 - Preserving the farmed landscape.
 - Encouraging the development of new and existing forests and woodlands.
 - Supporting the growth of organic farming.
20. The NIRDP was to meet these objectives by providing support under the following Measures:

Measure 2.1	Less Favoured Areas Compensatory Allowances Scheme
Measure 2.2	Agri-Environment Programme
Measure 2.3	First Afforestation (Forest expansion)
Measure 2.4	Forest Environments

21. Some of the Measures in Axis 2 provided support in the form of compensation for costs incurred or income foregone by those who entered into agri-environment or forestry commitments. The rates of such support were calculated by DARD officials. The adequacy and accuracy of these calculations were checked by officials with appropriate expertise from the Department of Finance and Personnel (DFP) and who were also functionally independent from DARD.
22. Throughout the development of Measures under Axis 2, there was close liaison between Departmental officials to ensure that support under the NIRDP would complement but not duplicate support under Pillar 1 of the Common Agricultural Policy.

Axis 3

23. Under Axis 3, Measures were designed to:
 - Strengthen the social and economic infrastructure of rural areas.
 - Build on the successes of the NIRDP 2000-2006.
 - Create employment opportunities and conditions for the creation and development of rural micro businesses.
 - Optimise the use of Northern Ireland's natural, human and historic assets through sustainable economic and social development.
24. The Measures aimed to meet the Axis 3 objective of improving the quality of life in rural areas and diversification of the rural economy through:
 - Increasing economic activity and employment rates in the wider rural economy through encouraging on-farm diversification into non-agricultural activities, off-farm diversification and re-skilling.
 - Supporting the creation and development of micro-enterprises in the broader rural economy.
 - Encouraging rural tourism built on the sustainable development of Northern Ireland's natural resources, cultural and natural heritage.
 - Improving the access by rural dwellers to basic services for the economy and rural population.
 - Regenerating villages, other rural settlements and their surrounding areas by supporting the development of integrated action plans and integrated village

initiatives to improve economic prospects, community relations and the quality of life.

- Maintaining, restoring and upgrading the natural and built heritage.

25. The NIRDP was to meet these objectives by providing support under the following Measures:

Measure 3.1	Diversification into non-agricultural activities
Measure 3.2	Business creation and development
Measure 3.3	Encouragement of tourism activities
Measure 3.4	Basic services for the economy and rural population
Measure 3.5	Village renewal and development
Measure 3.6	Conservation and upgrading of the rural heritage

26. All Axis 3 Measures, with the exception of support for rural broadband infrastructure, were to be delivered through an Axis 4 LEADER-type approach. Consequently, the setting of financial allocations and targets were indicative. Final targets were to depend on the needs and opportunities identified in the Local Development Strategies and on the subsequent allocation of funds to implement those strategies.

27. In the Community Strategic Guidelines, the overall strategic objective for the LEADER Axis was to build local capacity for employment and diversification. While contributing to the priorities of the other Axes in the Programme, it was also intended to play an important role in improving governance and mobilising the endogenous development potential for rural areas. Key features of the LEADER approach included:

- Area-based local development strategies.
- Bottom-up development and implementation of strategies.
- Local public-private partnerships.
- Integrated and multi-sector actions.
- Innovation.
- Co-operation.
- Networking.

28. This Axis was to meet these objectives by:
- promoting an area-based strategic approach to improving the quality of life in rural areas and the diversification of the rural economy; and
 - encouraging the identification of sectors or issues which could benefit from a co-operation approach.
29. In 2008, the European Commission undertook a review of the CAP. The NIRDP addressed the new challenges through existing schemes in the programme. For example, the agri-environment programme and first afforestation Measures under Axis 2 supported actions to improve biodiversity, climate change adaption/mitigation and water management. The Modernisation of Agricultural Holdings Measure in Axis 1 contributed to renewable energies and climate change adaption/mitigation.
30. Following on from this at the March 2009 meeting of the European Council, agreement was reached on a €5bn European Economic Recovery Plan. Funding was allocated to the rural development budget for rural broadband and/or for meeting the new challenges as defined in the CAP Health Check. The Northern Ireland allocation was to be used to encourage and secure the provision of next generation broadband services to rural businesses. The scheme was to be managed by DARD in partnership with the Department of Trade, Enterprise and Investment (DETI).
31. A full list of the Measures selected and the equivalent European Measures codes are detailed in Appendix 4.

32. The following tables (1-3) detail the intervention logic for each of the Measures chosen within the NIRD:

Table 1 - Axis 1 Intervention Logic

European Commission guidelines Axis 1	To contribute to a strong and dynamic European agri-food sector by focusing on the priorities of knowledge transfer, modernisation, innovation and quality in the food chain and priority sectors for investments in physical and human capital.	
Northern Ireland Strengths, Weaknesses Opportunities and Threats for Axis 1	Strengths: <ul style="list-style-type: none"> - Committed and resilient agricultural workforce. - Climate suited for meat and milk production. - 100% broadband coverage within NI. 	
	Weaknesses: <ul style="list-style-type: none"> - Large number of small farms. - Agri-food processing less well developed than rest of UK. - High dependence on commodity-type products and export markets. - Poor supply chain communication and integration. - Low incomes within sector. - Education and training levels not meeting national targets. - Reluctance to invest in agri-food businesses. 	
	Opportunities: <ul style="list-style-type: none"> - Potential for growth in new sectors. - Improvement in business management capability. - Investment to create jobs and wealth. - Increased innovation in products and processes. - Increased export potential within EU. 	
	Threats: <ul style="list-style-type: none"> - Overdependence on low value added sectors. - Low product prices threaten sustainability of many farm businesses. - Growing competitive pressures from trade liberalisation and enlargement of EU. - Increasing energy costs. 	
Northern Ireland objectives for Axis 1	A more competitive agricultural industry achieved through: <ol style="list-style-type: none"> (a) Increased business and technical competence. (b) Improved market focus. (c) A dynamic approach to innovation and uptake of new technologies. 	A more competitive food processing industry achieved through: <ol style="list-style-type: none"> (a) Increased value-added processing (b) Better product development (c) More effective marketing

NIRDP Measure Objectives (Axis 1)	To improve the competitiveness of farm and horticulture businesses in Northern Ireland through the provision of a range of innovative and focused training and information actions.	To contribute to the competitiveness of agricultural and horticultural businesses in Northern Ireland.	To improve the economic performance and international competitiveness of the agri-food and forestry processing sectors.	To increase the number of successful new collaborative initiatives in the agri-food and forestry sectors which lead to more effective and sustainable supply chains and to compare farm and horticulture businesses through benchmarking.
Proposed Measures	1.1 Vocational Training and Information Actions	1.3 Modernisation of Agricultural Holdings	1.2 Adding Value to Agric and Forestry Products Improving Marketing Capability	1.4 Supply Chain Development Programme

Table 2 - Axis 2 Intervention Logic

<p>European Commission guidelines for Axis 2</p>	<p>To protect and enhance the EU’s natural resources and landscapes in rural areas, contributing to three EU-level priority areas:</p> <ul style="list-style-type: none"> (a) Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes. (b) Water. (c) Climate change.
<p>Northern Ireland Strengths, Weaknesses Opportunities and Threats for Axis 2</p>	<p>Strengths:</p> <ul style="list-style-type: none"> - Attractive “clean and green” rural environment. - Rural areas acting as reservoirs of natural resources and high value landscapes. - Current agri-environment schemes contributing significantly to local biodiversity targets. <p>Weaknesses:</p> <ul style="list-style-type: none"> - Significant environmental challenges remain to be addressed - Biological water quality decreasing. - Existing agri-environment commitments restricting resources available for new schemes. - Large proportion of land on NI farms in less favoured areas. <p>Opportunities:</p> <ul style="list-style-type: none"> - Further investment to protect and enhance the rural landscape and environment. - Development of farm woodlands to improve biodiversity and amenity value. - Preservation of extensive production systems and farmed landscapes. - Promotion of alternative land uses such as increasing forest and woodland cover, renewable energy. <p>Threats:</p> <ul style="list-style-type: none"> - Drive towards increased competitiveness may impact on environmental stewardship. - Climate changes could impact significantly on agriculture, horticulture and biodiversity. - Increase in part-time farming due to demographic changes. - Insufficient funding to deliver optimum levels of support.
<p>Northern Ireland objectives for Axis 2</p>	<p>The Measures are designed to meet the Axis 2 objective of improving the environment and the countryside through:</p> <ul style="list-style-type: none"> (a) Promoting environmental services and animal-friendly farming practices. (b) Preserving the farmed landscape. (c) Encouraging the development of new and existing forests and woodlands. (d) Supporting the growth of organic farming.

<p>NIRDP Measure Objectives (Axis 2)</p>	<p>To improve the environment and the countryside through land management</p>	<p>To support the sustainable development of rural areas by encouraging farmers and other land managers to apply agricultural production methods compatible with the protection and improvement of the environment, the landscape and its features, natural resources, the soil and genetic diversity.</p>	<p>To support afforestation and encourage an increased rate of new planting.</p>	<p>To secure significant environmental benefits through the enhancement of biodiversity. To improve the public amenity of woodlands while preserving high value forest ecosystems, by reinforcing the protective value of forests in respect of soil, water and natural hazards. To assist in achieving the expansion, maintenance, enhancement restoration targets set out in the native woodland Habitat Action Plans, or benefit to the habitat of those woodland species covered by the Species Action Plan.</p>
<p>Proposed Measures</p>	<p>2.1 Less Favoured Areas Compensatory Allowances Scheme.</p>	<p>2.2 Agri-Environment Programme.</p>	<p>2.3 First Afforestation.</p>	<p>2.4 Forest Environments.</p>

Table 3 - Axis 3 Intervention Logic

EC guidelines for Axis 3	To contribute to the overarching priority of the creation of employment opportunities and conditions for growth.
Northern Ireland Strengths, Weaknesses Opportunities and Threats for Axis 3	<p>Strengths:</p> <ul style="list-style-type: none"> - Attractive rural landscape major asset in heritage and economic terms. - Previous rural development interventions have resulted in knowledgeable and well developed social capacity. - Established local infrastructure used to the LEADER-type approach. - 100% broadband availability. - Established culture of self-employment. <p>Weaknesses:</p> <ul style="list-style-type: none"> - Less accessible rural areas have high levels of deprivation. - Lower rates of full-time employment in rural areas. - Over-dependence on traditional industries such as agriculture and manufacturing. - High degree of residential segregation in rural areas. - Higher costs of transport and communication in rural areas. <p>Opportunities:</p> <ul style="list-style-type: none"> - Potential for further development of rural recreation and tourism. - Using IT to reduce the remoteness of rural locations, improving access to services, creation of networks, developing business opportunities. - Building on previous investment in developing the capacity of rural communities to create jobs and wealth. <p>Threats:</p> <ul style="list-style-type: none"> - Creation of jobs and wealth in rural areas is closely linked to the wider NI economy. - Declining farm incomes could restrict investment in diversification.
Northern Ireland objectives for Axis 3	<p>The Axis 3 objective of improving the quality of life in rural areas and diversification of the rural economy is to be met through:</p> <ul style="list-style-type: none"> • Increasing economic activity and employment rates in the wider rural economy through encouraging on-farm diversification into non-agricultural activities. • Increasing economic activity and employment rates in the wider rural economy through encouraging on-farm diversification into non-agricultural activities. • Supporting the creation and development of micro enterprises in the broader rural economy. • Encouraging the entry of women into the labour market through addressing inadequate childcare and eldercare facilities. • Regenerating villages and their surrounding areas by improving their economic prospects and the quality of life. • Encouraging rural tourism built on the sustainable development of natural resources, cultural and natural heritage. • Maintaining, restoring and upgrading the natural and built heritage.

NIRDP Measure Objectives (Axis 3)	<p>a) To maintain or increase the income of the farm households through the creation of employment opportunities in non-agricultural activities and services.</p> <p>b) To create employment opportunities through promoting entrepreneurship and developing the economic infrastructure in rural areas.</p> <p>c) To use the natural resources in Northern Ireland’s rural areas to create new employment opportunities and develop the rural economy.</p> <p>d) To improve or maintain the living conditions and welfare of those living in rural areas and to increase the attractiveness of such areas through the provision of more and better basic services for the economy and the rural population.</p> <p>e) To support integrated village initiatives which promote community development and regeneration.</p> <p>f) To use the natural resources in Northern Ireland’s rural areas to create new employment opportunities and develop the rural economy through supporting local village initiatives to preserve and upgrade their rural heritage.</p>
Proposed Measures	<p>3.1 - Diversification into non-agricultural activities.</p> <p>3.2 - Support for Business Creation and Development.</p> <p>3.3 - Encouragement of Tourism Activities.</p> <p>3.4 - Basic Services for the Economy and Rural Population.</p> <p>3.5 - Village renewal and development.</p> <p>3.6 - Conservation and Upgrading the Rural Heritage.</p>

5.3 Budget Allocated and Spend

33. The NIRDP was approved by the European Commission on 24th July 2007 and under Commission Decision 27/IX/2007 (C (2007) 4411 final). Table 4 shows the total EAFRD allocation and total public allocation.

Table 4 – Allocation of EAFRD and National Funding at Programme Approval

Funding Type	Amount € m
EAFRD	170,824,060
Other Public	152,073,945
Total	322,898,005

34. Additional EU funding was included through a programme amendment in 2008 to include voluntary modulation. A further modification was required in 2009 as a

result of the Common Agricultural Policy (CAP) Health Check and Economic Recovery Package. Table 5 shows the final EU allocations following these amendments in 2011 to the end of the programme in December 2015.

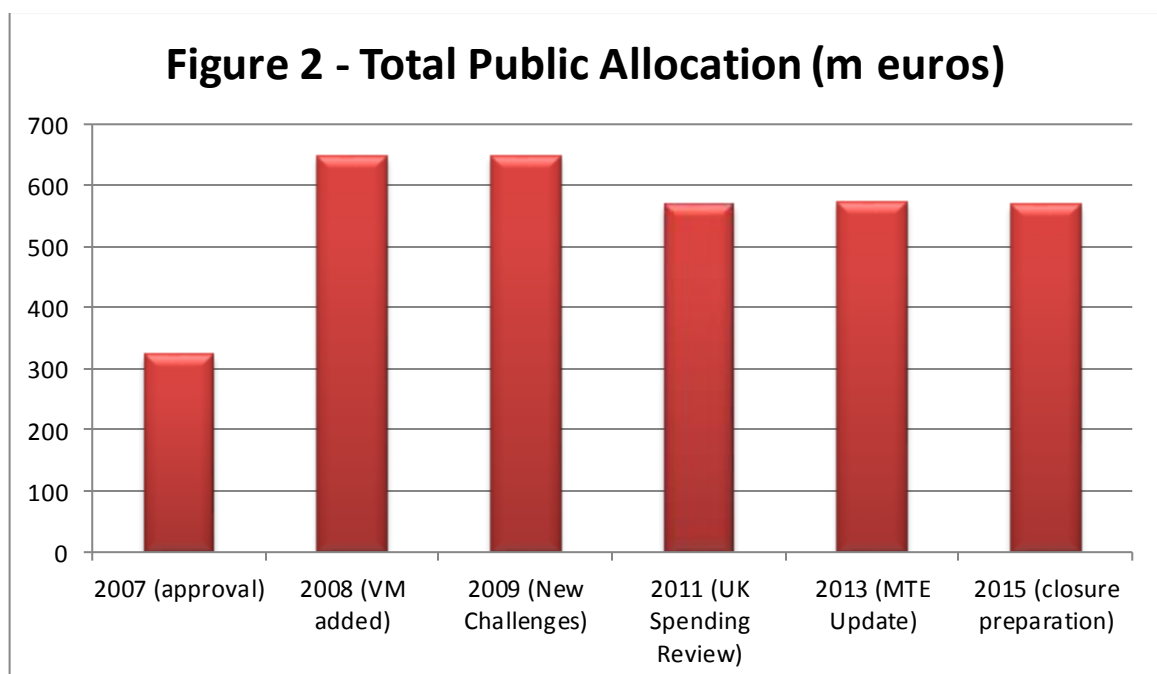
Table 5 – Programme EU Allocations following the CAP Healthcheck in 2011

Funding Type	Amount
EAFRD	€170,833,060
Voluntary Modulation ¹	€118,591,502
New Challenges ²	€40,093,432
TOTAL	€329,517,994

¹ Additional funding for the NIRDP deducted from the NI CAP Pillar 1 budget

² Additional funding for the NIRDP awarded as part of the CAP Healthcheck in 2011

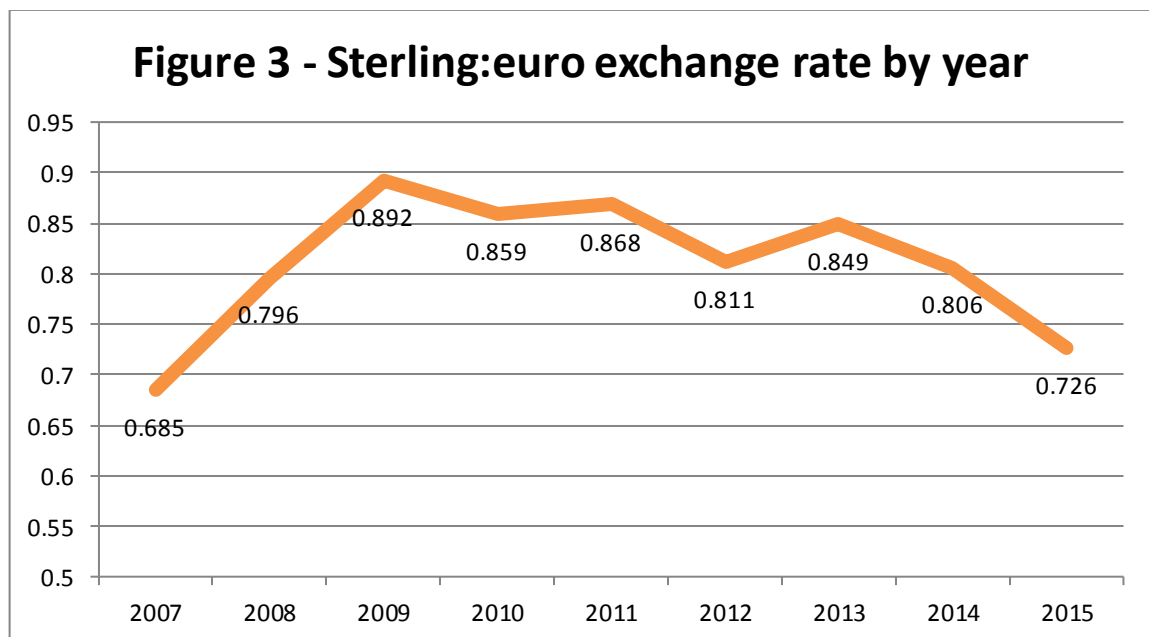
35. The overall size of the programme was determined by the European contribution and the matched Executive funds which were either directly from DARD’s resource allocation or from bids for capital funding. The Managing Authority made a total of twelve modifications to the programme (Appendix 5) to ensure it continued to meet the socio-economic needs of Northern Ireland’s rural areas. Figure 2 shows the major changes to the overall planned public expenditure over the period of the programme.



36. The maximum total public allocation was €649m in 2009 following both the introduction of voluntary modulation and additional funds for broadband in the CAP Healthcheck. Following the UK Government spending review in 2010, DARD was required to make savings which would contribute to the Government’s priority of

reducing the fiscal deficit over the next four year period. As a result the co-financing rates in Axis 2 were amended to the maximum permitted by the EU rural development regulation. The result was that the EU allocation remained unchanged however the national contribution was reduced. The total public allocation fell to €569.7m which was a reduction of 12% of the RDP budget. The overall allocation remained relatively stable to the end of the programming period with some changes resulting from the Mid Term Evaluation Update and final realignment of allocations.

37. A further factor affecting the programme budget allocation was the changes in the euro:sterling exchange rate over the period of the programme. At programme approval in 2007 the euro allocations for each measure were converted to sterling for budget planning purposes at a rate of 0.67 sterling to euro. Figure 3 shows the variation of the exchange rate from 2007 -2015 which was the period over which the programme was permitted to spend. The implications were that the sterling equivalent value of the programme increased significantly from 2007 – 2009. The modification in 2011 as a result of the UK spending review also revalued the sterling equivalent of the programme at 0.82 sterling to euro.



Expenditure

38. Table 5 shows the EAFRD allocation in Euros for each measure following the final programme modification in 2015. This final modification provided an opportunity to align allocations with the anticipated spend at the 31 December 2015. The table also shows the EAFRD expenditure declared at November 2016 which is prior to the final EU approval for the closure of the accounts.
39. The total expenditure declared to the European Commission exceeded the total allocation of European Funding to the Programme. The closure process meant that EU allocations would be capped at Axis level and the European Commission would

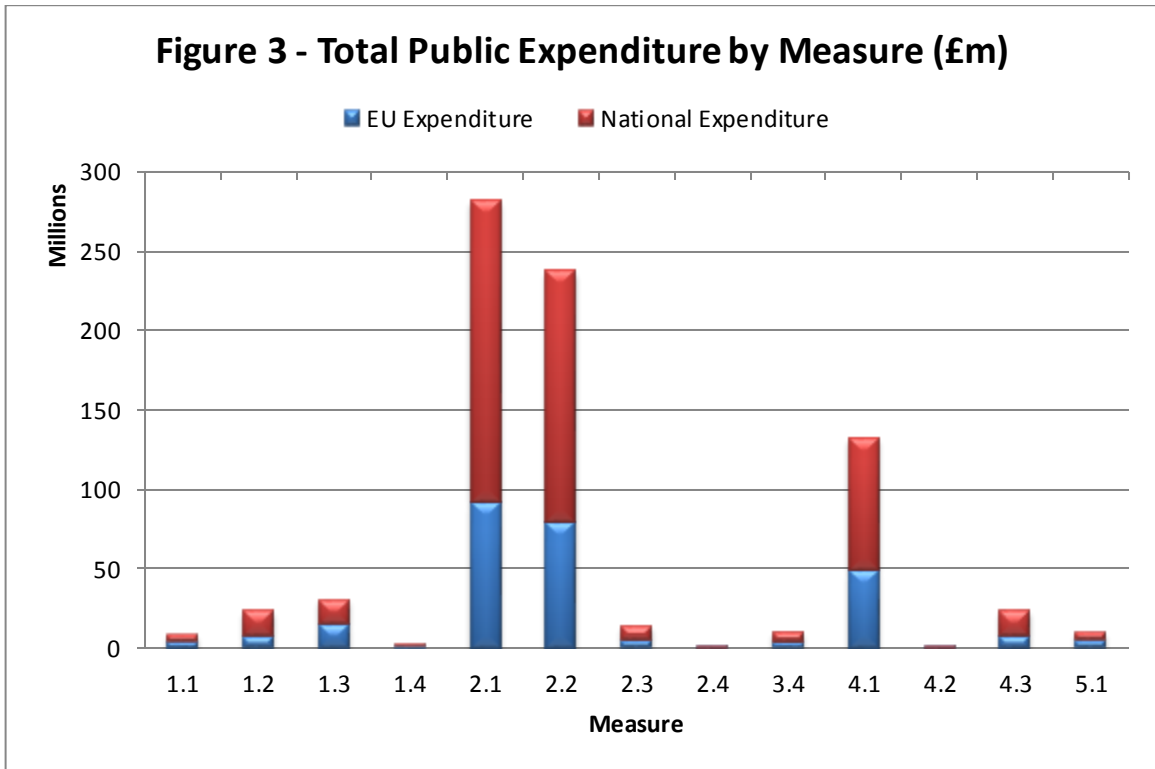
not reimburse expenditure declared in excess of each Axis allocation. The figures in table 5 show that Axes 1, 3, 4 and 5 were in excess of their allocations by **€1.50m** which represents **0.46%** of the total EAFRD allocation.

40. Axis 2 under spent against its allocation by an amount of approximately **€257k**, or **0.078%** of the total EAFRD allocation. This meant that the total eligible expenditure declared to the European Commission under the Programme was **€329,260,835** (allocation minus under spend). This represents expenditure amounting to **99.92%** of the total EAFRD allocation and an under spend of **€257,159** of EU funds.

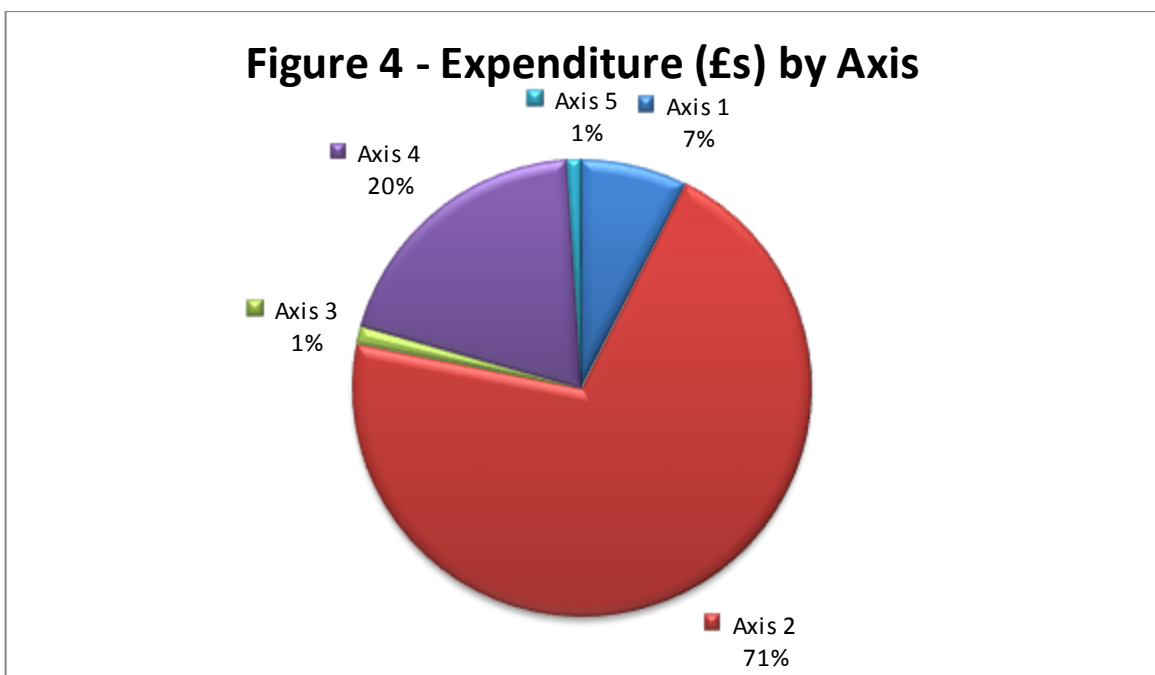
Table 5 – Measure Allocation and Expenditure (November 2016)

	Measure	Allocation (€)	Expenditure declared (€)
1.1	Vocational training and information actions	5,338,000	5,182,126
1.3	Modernisation of Agricultural holdings	17,750,567	17,948,334
1.2	Adding value to agric and forestry products	8,660,970	8,654,443
1.4	New products, processes and technologies	945,000	986,536
2.1	LFA	114,292,987	114,225,981
2.2	Agri Environment payments	97,463,393	97,284,057
	First Afforestation of agricultural land	5,804,070	5,758,950
	First establishment of agro forestry systems	0	0
	First Afforestation of non-agricultural land	0	5,880
	Forest environment payments	2,361	6,929
	Forestry non productive investments	5,644	29,499
3.4	Basic services for the economy	4,865,060	4,913,187
4.1	Quality of life/diversification	59,163,011	60,218,853
4.2	Co-operation	184,945	184,944
4.3	Running costs, skills acquisition, animation	9,772,000	9,626,545
5.1	Technical Assistance	5,269,986	5,736,724
	PROGRAMME TOTAL	329,517,994	330,762,988

41. Due to the exchange rate fluctuations it is difficult to assess the overall sterling expenditure at programme level at final closure. Figure 3 shows the total expenditure on the programme in Sterling at the end of 2015 (prior to final closure of Accounts) and across each of the Measures within the programme. Total public expenditure in each of the Measures represents the total public funding costs of the supported projects made up of European and national funding.



42. At the end of 2015 the total EU expenditure was €331m and total public expenditure, which included the national funding, was €570m. In addition almost £37m of Additional National Financing was delivered through the programme and the sterling equivalent to the end of 2015 showed that the total public expenditure was **£506m**.
43. Figure 4 shows the total public expenditure (both EU and National) by Axis. This highlights that the largest element of expenditure, both EU and national, was on Axis 2 Measures followed by Axis 4 and Axis 1 respectively.



44. Due to the fluctuations in the exchange rate between sterling and the Euro over the period of the programme and the fact that the programme allocations are approved in Euros, the evaluation is based on the Euro value of the schemes and measures. Where possible the sterling equivalents are included.

6.0 Answers to Evaluation Questions

6.1 Measure-related Common Evaluation Questions

The Common Evaluation Questions (CEQs) (Appendix 1) were developed by the European Commission at the start of the programming period and were revised at Mid Term Evaluation stage. They were developed to ensure that the essential impacts of RDPs and achievements towards Community priorities and objectives are analysed across the EU. In the following section the questions are addressed for each of the Measures selected in the NIRDP.

Measure 1.1 - Vocational Training and Information Actions

Background

1. At the beginning of the programming period Northern Ireland's farm businesses faced unprecedented challenges with pressure on end-prices from world markets, increased animal health and welfare and environmental controls and the decoupling of production support through the Single Farm Payment. The potential impact of these changes meant it was essential that farmers broadened their range of management skills to improve their competitiveness. Delivery of training and information actions was identified as an essential strategy to broadening management skills as:
 - The Northern Ireland agriculture sector was characterised by low levels of education and training attainment.
 - There was a strong correlation between education/training levels and business competitiveness.
 - The agri-food sector was becoming increasingly technical and knowledge transfer was required to keep individuals up to date with the changes.
 - There were significantly lower levels of farmers carrying out business comparisons (benchmarking) in Northern Ireland than other countries to highlight areas of strength and weaknesses in their business.
2. Therefore, the objective of the Measure was to improve the competitiveness of farm and horticulture businesses in Northern Ireland through the provision of a range of innovative and focused training and information actions.

How and to what extent has the Measure contributed to improving the competitiveness of the beneficiaries?

Interventions under Measure 1.1 contributed to improving the competitiveness of beneficiaries through the following schemes:

Benchmarking

3. Benchmarking opened in 2009 aiming to create a more competitive agricultural industry through the provision of quality information to farmers and growers from which they could make business decisions. The scheme was delivered on behalf of the DARD by the Countryside Agri-Rural Partnership (CARP) who worked in association with the College of Agriculture, Food and Rural enterprise (CAFRE).
4. The appointed agent was responsible for the recruitment of farmers, the collection of data and forwarding the cleansed data to CAFRE. The role of CAFRE was to analyse the data, quality assure the benchmarking figures and, based on the information provided, send out reports and provide advice to farmers to help make their business more competitive. The information allowed farmers to compare their business to others of similar type and size in terms of output, costs and profitability. The scheme was open to both full and part time farmers with no minimum size requirement for entry, but the benefits to be gained from the scheme increased with the size of the enterprise being benchmarked.

Focus Farms

5. The Focus Farm Scheme opened in September 2009 with the overall aim of contributing to the competitiveness of agriculture and horticultural businesses in Northern Ireland through farmer-led training using farm businesses to promote the adoption of good production, business and environmental practices. The scheme recruited and trained 61 farm businesses across ten enterprise sectors to facilitate visits from other farmers. By outlining the important aspects of their farm business, focus farmers would pass on their experience to the visiting farmers and detail the vital components of a successful sustainable farm business.
6. The scheme included 14 environmental farms for the purpose of providing 300 practical workshops for farmers with the aim of decreasing the environmental impact of farming. In addition, participating focus farms were able to act as venues for the Farm Safe Awareness training that took place under the Farm Family Options scheme. The scheme was delivered by the CARP on behalf of DARD with CAFRE advisers offering technical advice and facilitating many of the visits.

Farm Family Options

7. Farm Family Options opened in 2009 with the aim of strengthening the competitiveness of farm families by supporting restructuring, development and innovation through vocational training, information actions and innovative practices. The objective of the scheme was to assist farm family members to consider their options and that of the farm business by providing the necessary training and mentoring support to secure the viability of the farm business and the financial well being of family members. There were two elements, Business mentoring and Skills Training.
8. The Business Mentoring scheme sought to assist farmers and farm family members to analyse their current position and identify their future options through working with one of the 23 agri-business mentors provided by the delivery agent, CARP. The process involved looking critically at the business in areas of viability, sustainability and profitability, and agreeing options to develop their business. The scheme also provided a training budget of up to £1,250 for up-skilling for farm activities and/or re-skilling for off-farm activities following the identification of training needs.
9. A key objective of the scheme was to encourage farm families to consider succession/retirement planning in order to ensure long term sustainability of their farm business and encourage younger farmers into the sector. Support of up to £250 was made available to allow farm businesses to receive legal or financial advice in relation to succession planning from a solicitor and/or accountant.
10. After a review of the skills training element in 2011, Collective Skills Training was introduced focusing on three themes; ICT, farm safety and animal welfare. ICT for the farm family delivered through two courses: Computer and Internet Training was a basic introductory level course suitable for those with little or no previous computing experience on setting up emails, going online and accessing online DARD services; Managing Farm Records Training was a basic introduction to spreadsheets, VAT returns, managing files, creating folders and online banking.
11. FarmSafe Awareness training was delivered with the Farm Safety Partnership and CARP. The training was introduced in January 2013 as farm related deaths accounted for 60% of work related deaths in Northern Ireland in 2011. FarmSafe Awareness offered practical demonstrations covering the everyday hazards faced by farmers and farming families. Topics included working at height, slurry risks, handling livestock and working with machinery. The two and a half hour sessions included a farm walk and was open to farmers and farm family members aged 17 and over. Attendance was free of charge and events took place throughout Northern Ireland in established Focus Farms and community venues.
12. FarmSafeNet was an online learning tool designed to raise awareness about farm safety among farmers and members of the farm family and was introduced as a

response to feedback on Farmsafe Awareness courses when 57% indicated they would consider accessing farm safety training online. The training went live in July 2014. On completion of the course the participant received a certificate with a unique reference number which was to be used to show their commitment to farm safety when accessing future DARD services and schemes.

13. Animal Health and Welfare NI (AHWNI) was a new initiative outside of the NIRDP launched by farmers' organisations and the wider cattle industry to promote improved cattle health and welfare within Northern Ireland. Bovine Viral Diarrhoea (BVD) was the first disease to be addressed by AHWNI with awareness sessions delivered by veterinary practitioners to help farmers be aware of the steps they could take to tackle BVD and the economic advantages of doing so. Sessions also covered the importance of on-farm biosecurity in protecting animal health more generally. The awareness sessions were funded through the NIRDP and rolled out by veterinary practices, across Northern Ireland, for their livestock farmer clients during 2013/14.

Outcome and Evaluation

14. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Quantified Targets for EU Common indicators

	Indicator	Position Reported 2015	Target 2007-2013
Output	Number of people participating in training	53,277	19,120
	Number of days training received	28,579	15,960
Result	Number of participants that successfully ended a training activity related to agriculture and/or forestry	51,782	8,620
Impact	Change in gross value added per full time equivalent	N/A	Not Applicable

Table 2 - Additional programme-specific indicators and quantified targets

	Indicator	Position Reported 2015	Target 2007-2013
Outputs	Number of farm businesses participating in data collection training	4,829 ¹ (Unique 1,595)	8,100 ²
	Number of farm businesses that successfully completed benchmarking training	4,829	8,000
Results	Number of individuals that successfully completed a Focus Farm visit	11,281	6,000
	Number of participants that successfully produced a farm family strategy plan	2,216	1,000
Impact	Number of farm businesses adopting better practices	Range 50-99% ³	50%
	Number of participants indicating that the Measure has had a financially positive effect on their farm business	Range 27-80% ⁴	50%
	Increase in labour productivity	16% ⁵	2%

1. 14,829 is a cumulative figure from the start of the programme and includes significant repeat counting. Removing repeat counting current best estimate is 1,595 unique businesses.
2. 8,100 target was based on datasets benchmarked rather than farm businesses.
3. 26 Survey responses for each individual activity recorded a range between 50% and 99% for participants reporting they had adopted better practices due to the activity.
4. 27 Survey responses for each activity recorded a range between 27% and 80% for participants reporting that participation in each activity had a positive financial effect on their farm business.
5. 28 Labour Productivity is calculated as the ratio of net value added at constant prices to total labour input (in Annual Work Units). The 16% increase was calculated between 2007-2015.

15. There was a total of €5.2m expenditure in Measure 1.1 just below the target of €5.3m – this was all EAFRD funding with no additional public or private contribution. A total of 53,277 trainees (nearly 3 times the output target) participated in training events across a number of schemes with 28,579 days training received (almost double the output target) and 51,782 participants (6 times the output target) successfully completing a training activity related to agriculture. The outcomes per scheme were as follows:

Benchmarking

16. Targets for this scheme were inaccurately defined at the outset of the programme. Targets were set on the basis of the number of farm enterprises to be benchmarked and not the number of farm businesses to participate in data collection. A farm enterprise is a particular farming activity, such as dairy replacements or beef finishing, that is a constituent part of the farm business and would have to be individually benchmarked with its own set of data. As there is an average of 1.8 enterprises to a farm business in Northern Ireland, the targets should have been set lower at 4,500 businesses to participate in the scheme and 4,445 businesses to complete benchmark training. This would have led to both targets being exceeded as 4,829 businesses participated and successfully completed the training from the start of the programme.

17. Those businesses that did participate found the scheme had a positive impact on the competitiveness of their business. A survey of 163 (37%) current beneficiaries in January 2015 reported that 82% agreed that benchmarking helped their business decision making, 50% agreed the data collector identified useful ways to record future information and 85% agreed their CAFRE development adviser helped them to identify options to improve future business performance based on their benchmarking report. With regards to the impact/outcomes of the scheme there is anecdotal evidence from the survey that participating farm businesses improved their competitiveness as it improved understanding of managing accounts (79%), improved their business decision making (82%), made them more business focused (81%) and resulted in adoption of new technology (27%).

Focus Farms

18. The Focus Farm scheme surpassed its output targets in terms of visits to Focus Farms with 11,281 individuals making 16,547 visits against targets of 6,000 and 10,500 respectively. However, 4,500 hours of one-on-one mentoring was envisaged by Focus Farmers, but only 932 hours took place. There were 748 Environmental Workshops which took place with 8,192 participants surpassing their respective targets of 300 and 3,000 respectively. The scheme was viewed as having a positive impact on the competitiveness of farm businesses in three surveys carried out on visitors, focus farmers and CAFRE advisors included in the Post Project Evaluation of the Focus Farm Scheme which was completed in May 2014. A survey carried out on 287 visitors (2.5%) to Focus Farms in April 2014 found 88% had adopted better farm practices as a result of the visit and 80% indicated the scheme had a financially positive effect on their farm business.

19. A survey of Focus Farmers in April 2014 reported 90% of the farm businesses had adopted better practices and 79% indicated the scheme had a financially positive impact on their business. Finally, a survey of 51 out of 80 of the CAFRE advisors in

May 2014 reported 80% thought the scheme was a valuable resource to help them develop their farming clients.

Farm Family Options

20. A total of 2,247 beneficiaries received business mentoring through the programme, exceeding the target of 2,150. Of these, 2,216 (98.6%) successfully produced a farm family strategy plan - more than twice the target set at 1,000. A survey of 169 (7.5%) beneficiaries of the scheme in March 2014 found that 44% participated in the scheme because they had no plans for succession, twice the number who participated due to insufficient farm incomes. Most (86%) of the respondents felt the mentoring was beneficial to their farm business and 27% said they benefited financially due to increased incomes and reduced costs. As a result of mentoring, 22% of participants invested in equipment and/or buildings, 19% have explored or commenced diversification and nine per cent have explored or commenced new employment opportunities.
21. Based on the survey results, this indicates that 50% of survey participants are in the process or have made changes to their business. Nearly all of the respondents (98%) reported they took professional advice from an accountant or solicitor with 96% reporting this led to them taking actions to prepare for retirement or succession. Additionally, 80% of the respondents reported the programme helped them make positive changes, that without the programme they would not have made.
22. In addition, 1,200 farmers or members of families received funding in order to support the completion of 1,331 training courses with an average grant award of £233. In April 2011, a customer survey was carried out with 27% of respondents indicating the training was beneficial for farming activities and 71% indicating it had benefits for off-farm employment opportunities. Two per cent indicated there was no benefit from the training at all.
23. In total, 173 ICT courses were completed, with 2,486 participants exceeding the targets of 171 courses and 2,400 respectively. From 344 (13.8% of participants) responses to a survey in March 2015, 91% of respondents indicated that having attended an ICT course their knowledge of computers had improved and 84% indicated they would attend further ICT training.
24. Demand was high for FarmSafe Awareness training with 5,383 people attending an event, exceeding the target of 4,500 when the scheme closed at the end of March 2015. A survey of 923 (17.1%) scheme participants reported that 99% of respondents changed farming practices as a result of the training and 91% had a heightened awareness of farm safety. A total of 1,038 farmers completed FarmSafeNet training online as of 31 August 15, with numbers continuing to rise as the training tool remains live. Therefore, this investment acts as a legacy for future health and safety training at no additional cost.

25. There was an initial fall in the number of deaths in the agricultural industry from 11 in 2012/13 to four in 2013/14 coinciding with the introduction of farm safety training, but this increased again to nine in 2014/15. With regards to agricultural work related injuries, a survey by the Farm Safety Partnership in February 2015 found nearly five per cent of 4,133 farms surveyed had had an accident where someone was injured in the previous 12 months. There is no recent comparable figure but this figure should act as a baseline outcome indicator for farm safety training going forward.
26. A total of 2,766 people attended Bovine Viral Diarrhoea (BVD) awareness sessions compared to a target of 2,750 by March 2014. A survey of 1,743 (63%) scheme participants reported that 78% indicated the training improved their understanding of BVD. Eighty-six per cent indicated the training improved their understanding of the BVD eradication programme and 99% indicated they were more likely to participate in the eradication programme. It is hoped in the long term that increased BVD eradication programme participation will lead to a reduction of BVD prevalence in Northern Ireland's beef and dairy herds which currently stands at 67%. This will lead to improved competitiveness by reducing herd maintenance costs, increasing yields, aiding the marketing of Northern Ireland beef and dairy products as a mark of quality, and improving the welfare of animals generally.
27. The surveys carried out across the various interventions provide evidence that impact/outcome targets have largely been achieved. The number of farm businesses indicating they adopted better practices as a result of participation in the various schemes ranges from 50%-99% compared to a target of 50%. The only scheme where less than 80% of farms adopted better farm practices was the Family Farm Options – Business Mentoring Scheme. This scheme supported farmers and farm families for various reasons including diversification skills training and preparation for succession, with neither having an outcome for adopting better farming practices.
28. The most popular reason for participation in the scheme was to plan for succession, with 44% of survey participants giving this as their main reason for availing of the scheme. The number of participants indicating that the Measure has had a financially positive effect on their farm business ranged from 27%-80% across the various schemes compared to a target of 50%. Again, of the schemes that measured the positive financial effect on participants' farm businesses, only Family Farm Options – Business Mentoring and Skills training was below 79% and failed to achieve the 50% target. The failure to reach this target was largely due to support being offered under this scheme for activities which were about long term business sustainability rather than short term financial gain.

Conclusion

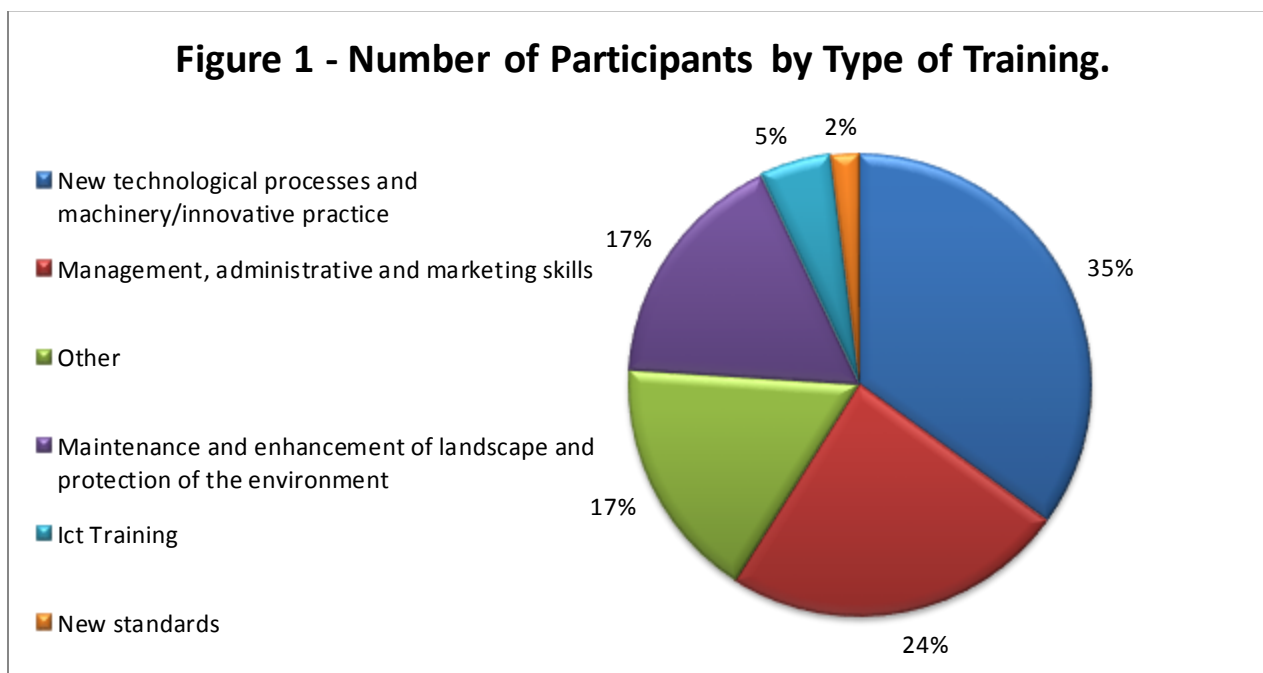
29. Benchmarking has proved to be a successful scheme within Measure 1.1 in terms of achieving its outputs and results. Going forward into the new programme there is evidence from participant feedback that the scheme needs to be tailored towards the needs of the different farming sectors and individual businesses as 20% think more regular benchmarking is required, 48% would like more input from their development adviser and 63% think it would be beneficial to go to other farms and discuss benchmarking. It is the evaluator's opinion that tailoring the benchmarking scheme to meet individual and sector needs would ensure participation and improved farm business competitiveness going forward.
30. The Focus Farm scheme has proved to be a very successful scheme achieving its output and result indicator targets, with the exception of the number of hours business mentoring received, which was a Key Performance Indicator (KPI) rather than a Measure level indicator. The evidence from both the farm visitors' survey and focus farmers' survey in April 14 suggest the scheme has been successful in improving the competitiveness of participants as the outcome indicators were well exceeded for both groups in terms of a positive financial impact and adoption of better farming practices. Going forward into the new programme, evidence from participant feedback suggests the scheme could improve competitiveness of farm businesses by ensuring the focus farms are fully committed to developing visiting farmers and that the information they provide to visitors is accurate, as this has not been the experience of all visitors.
31. Farm Family Options has been very successful in meeting its participation targets across all the activities implemented under the scheme with the result indicator for the production of a farm strategy action plan more than double the set target. However, it is very difficult to ascertain the effect this scheme has had on the competitiveness of farming businesses due to both gaps in data relating to the impact/outcome indicators and the fact that many of the activities were aimed at creating a long term sustainable farming industry rather than short term business competitiveness.
32. In conclusion, it is difficult to assess in financial terms the extent to which this Measure has contributed to improving the competitiveness of the beneficiaries, given that the schemes had no clear measurable financial outputs and that some of the interventions were concerned with creating long term sustainable farming and rural societies. However, the fact that so many farmers and farm family members availed of the training opportunities, exceeding nearly all of the output targets, provides anecdotal evidence that there must have been some competitive improvements to be gained for farm businesses by participation in the various training, information and knowledge transfer schemes.

33. Overall, labour productivity in the agricultural sector has increased by 16% between 2007 and 2015 which implies that the sector has become more competitive over the course of the programme as each labour unit has increased its output. The extent that Measure 1.1 has played in increasing the labour productivity is difficult to determine but there is enough anecdotal evidence in both the uptake of the schemes, results and impact indicators to conclude that it has made a positive contribution.
34. Based on the available evidence, it is the evaluators' opinion that the choice of Measure 1.1 Vocational Training and Information Actions was based upon relevant intervention logic. Increasing costs associated with rising prices, new animal health and welfare standards, increasing environmental regulations and decoupling of support through the single farm payment meant that better farm management was required to ensure farming businesses remained competitive in the long term. In addition to remaining competitive, it was also imperative that farmers and their families were encouraged to explore off farm income streams in order to ensure the long term sustainability of family run farming in the region. It is the evaluators' opinion that the activities chosen to meet these needs were appropriate and that the €5.2 m expenditure was value for money based on the short term and long term competitive benefits that could be gained for the industry. Going forward, the costs associated with the programme could be reduced by more collective training courses being made available online.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

35. The evidence suggests that the different schemes under Measure 1.1 produced a good level of synergy with each other, meeting the EU Strategic Guideline to ensure consistency in the programming. According to the April 2014 Focus Farm Visitor survey, 67% of the Focus Farm visitors took up benchmarking as a result of their visit. The role of the CARP in the delivery of both schemes is a contributing factor to the strong synergy between the two. Focus Farms also played an important role as venues for Farm Safety Awareness training under the Family Farm Options scheme as a third of the 196 workshops that trained 3,462 people took place on Focus Farms.
36. A high level of synergy also existed between Measure 1.1 actions and the rest of the NIRDP. Benchmarking training under Measure 1.1 supported and fed into the process of benchmarking carried out under Measure 1.4 Supply Chain Partnerships, with 1,595 businesses successfully completing benchmarking. Focus Farms were used as venues for 748 workshops delivered to 8,192 people under Measure 2.2 (agri-environment), contributing to the environmental objectives of dealing with farm waste, field boundary management and cross compliance.

37. It was anticipated at the outset of the programme in the intervention logic that Focus Farms and Family Farm Options would both link to Measure 1.3, Farm Modernisation Programme, through advice and guidance received under these Measures leading to the uptake of new technologies and innovations. However, in the absence of evidence to support the development of the link, the survey findings from Focus Farm visitors (55% invested in New Technology/Innovation) and Farm Family Options Mentoring beneficiaries (44% invested in equipment/buildings) provide anecdotal evidence that there was a link at some level. Farm Family Options also directly linked to farm diversification Measures under Axis 3 through the training of farm families in skills to provide opportunities for off-farm work and exploration through business mentoring of potential farm diversification businesses.
38. The training delivered through Measure 1.1 contributed to the objective of tailoring activities to the needs of young farmers as laid out in the EU Strategic Guidelines for Axis 1. Out of the 51,782 participants in activities related to agriculture, 34.5% of those trained were under the age of 40, compared to four per cent of Northern Ireland farmers aged under 35 and 17% aged under 45²³. For those who achieved a certificate, degree or diploma, the figure was higher with 56.3% aged below 40.
39. Beneficiaries of the training also gained a wide range of new skills that will not just benefit the competitiveness of their farm business, but will have a positive effect on their personal development and the skill set of the Northern Ireland labour force, contributing to wider EU labour force strategies. The training may also open up new business and work opportunities that did not previously exist. Overall, 53,277 trainees (32,619 individuals) gained new skills, broken down as follows:



²³ EU Farm Structure Survey NI (2013) Department of Agriculture and Rural Affairs

40. A total of 51,782 (97.2%) of the 53,277 successfully completed a training activity related to agriculture with 270 going on to achieve a certificate, degree or diploma.
41. Feedback from the PPEs of the schemes suggest training actions may have benefitted rural farming communities socially by encouraging social networking in addition to business networking. If the schemes are allowed to continue in the long term the evaluators would hope they will contribute to helping to alleviate rural isolation and strengthen rural communities including the building of cross community relationships within the Northern Ireland context of religious division. At farm business level feedback from business mentors suggest business mentoring helped beneficiaries open up communication within families around issues of succession and financial planning. The PPE of the Business Mentoring Scheme in September 2015 goes on to contend “Succession and financial planning generally weigh heavy on people’s minds. By the scheme partially addressing these issues it could be contended that the mental wellbeing of participants has also improved. This outcome was reported in several participant evaluations.” Also, health and safety training has resulted in improvements that have made it safer for farm families to live and work on their farms. An unforeseen benefit of the training schemes has been the personal development of CAFRE advisors with 61% of the focus farmer advisors reporting this was an impact for them in their survey.
42. All the training delivered under Measure 1.1 was bespoke and unavailable anywhere else which meant there was no displacement impact on private sector training enterprises. There was also clear demarcation with training funding from other EU structural funds with EAFRD training targeted at individual businesses within the agricultural sector, ERDF targeted at research and development, and ESF targeted at raising the skill levels and adaptability of the Northern Ireland labour force in general.
43. There were some negative experiences for participants across the training programme with feedback evidence suggesting some Focus Farmers were not fully committed to the programme and were more interested in the augmentation element of the scheme rather than sharing their knowledge and best practice with visitors. Feedback also suggested that some Focus Farmer’s benchmarking data was unreliable and that geographical gaps in the spread of focus farms impacted on delivery. Nine per cent of the total trainees were women but given that only 24% of the farm labour force are women and seven per cent of farm managers are women²³ this outcome was not entirely unexpected. It should be noted that women were over represented on ICT training accounting for 37% of the trainees when compared to their proportion of the farm labour force. Based on the evidence, it is clear there was a strong emphasis on providing support to the farming sector but there is little evidence to suggest training support for those involved in the forestry sector who were also seen as key beneficiaries in the EU guidelines for Axis 1.

44. In conclusion, it is the evaluator's opinion that the overall effect of the training and information actions on the beneficiaries, non beneficiaries, wider NIRDP and rural communities has been largely positive. Training and information actions have provided beneficiaries with sign-posting to other NIRDP schemes and business opportunities, provided non-beneficiaries such as CAFRE advisors with development opportunities and strengthened rural communities through the social aspect of events. There have been some areas where lessons could be learned but there is an opportunity for these to be addressed in the next programming period.

Measure 1.2 - Adding Value to Agricultural and Forestry Products and Improving Marketing Capability.

Background

1. This Measure provided support for the agri-food and forestry sectors through the Agricultural and Forestry Processing and Marketing Grant Scheme which was known as the Processing and Marketing Grant Scheme (PMG). The PMG scheme was included in NIRDP 2007-2013 with the overarching objective of improving the economic performance and international competitiveness of the agri-food and forestry processing sector in Northern Ireland. The rationale for its inclusion was based on the challenges that the sector was facing as a result of CAP reform and growing international competition following EU enlargement and World Trade Organisation agreements.
2. According to the rationale for the PMG scheme, the agri-food sector's main weakness was its structure with a large number of small (by UK standards) family run farms unable to generate enough profit to equal an average industrial wage. There was also thought to be a greater reliance on bulk commodities with milk, beef and sheep meat processing sectors accounting for almost half the gross turnover of the NI agricultural processing sector but only contributing one third to the value added for the sector.
3. Against a background of continued low prices, low levels of agricultural income and competitive pressures on the food processing sector, improved innovation was identified as the key means of adding value to agricultural output and increasing economic returns in rural areas. Other contributing factors for improving competitiveness identified included better supply chain communication and integration between primary producers and processors and investment in marketing by food processing companies to increase exports.
4. The scheme was open to micro, small, medium and intermediate size enterprises as defined by the EU guidelines for the Measure with the forestry sector restricted to supporting micro enterprises (Article 28 of EC Reg. No. 1698 of 2005). The scheme sought to assist beneficiaries to become more competitive by providing grants for capital investments such as the purchase of plant and equipment, building new premises and refurbishing or extending existing buildings.
5. The Scheme was designed to meet the EAFRD objective of: *'improving the economic performance and international competitiveness of the agri-food and forestry sectors through'*:
 - adding value to agricultural products through the application of appropriate technology together with sound manufacturing and environmental management practices;

- encouraging greater integration and collaboration between producers, processors and others in the food chain, improving the application of technology within the supply chain and improving the marketing capability of enterprises; and
 - improving the application of technology in the forestry sector, encouraging greater integration and collaboration between producers, processors and others in wood supply and renewable energy chains and improving the market capability of enterprises.
6. The Scheme provided support towards capital expenditure on buildings and plant and equipment (including computer software), the cost of a business plan/feasibility study for the project, and directly related general costs such as architects', engineers' and consultants' fees (to a maximum of 10% of total eligible costs).

How and to what extent has the Measure contributed to improving the competitiveness of the beneficiaries?

7. The total public spend under the scheme was £20.3m with the final call for applications in September 2013 and all approved projects to be completed by the 31st December 2015. The maximum amount of funding that could be awarded to a project was capped at £500k.
8. The scheme was delivered in partnership with Invest NI, which is the economic development body for Northern Ireland with responsibility for developing export markets and job creation in Northern Ireland. Invest NI were responsible for carrying out economic/business appraisals for their clients who applied for funding under the scheme and they contributed £2.2m in public funding towards the cost of providing assistance to the approved projects.
9. The final payments for the PMG scheme were made from the 2007-2013 Programme in December 2014 and the scheme transferred to the 2014-2020 Programme under the transition arrangements from the 1st January 2015. In some cases this has led to some projects being split between programmes. For the purposes of this evaluation however the evaluators have assessed the scheme in its entirety.

Outcome and Evaluation

10. The following table provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015. It should be noted that the basis for the target figure for Gross Value Added (GVA) in supported holdings is unreliable and therefore is not considered within the evaluation.

Table 1 - Quantified targets for EU common indicators

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of enterprises supported	115	100
Result	Total volume of investment	€66.8m	€66.5m
	Number of enterprises introducing new products and/or techniques:	115	95
	Gross value added in supported holdings	€23.7m ¹ (£17.2m)	29082
Impacts	Economic Growth	19.6% ² increase	Increase by 2%
	Labour Productivity	16% ³ increase	Increase by 2%

1. After the completion of 50 Post Project Evaluations
2. Economic growth of agri-food (agriculture and food and drinks processing) between 2007-2014 at constant prices base year=2010
3. Labour Productivity is calculated for the agriculture sector as the ratio of net value added at constant prices to total labour input (in Annual Work Units). The 16% increase was calculated between 2007-2015. There are no equivalent figures for the food and drinks processing sector.

Table 2 - Programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Results	Level of exports from supported holdings	63% increase ¹	2% increase

1. After the completion of 50 Post Project Evaluations

11. A total of €66.8m (£56.3m) was invested from public and private funding in 115 projects exceeding the targets set at 100 projects and €66.5m respectively. The results of the programme against EU quantified targets show that all the projects (115 in total) introduced new products or techniques as a result of funding in comparison to target set of 95 and based on the 50 PPE's completed to date this resulted in GVA to supported holdings of €23.7m (£17.2m).
12. In terms of the programme specific result indicator the level of exports from supported holdings increased by 63% (based on 50 PPE's completed) compared to a target of two per cent. A more complete picture of the scheme's outcomes, in terms of GVA and exports, will be known in 2017 when all the outstanding projects have completed and PPE's have been carried out on their performance.

13. An Evaluation of the PMG Scheme was completed in February 2016. This evaluation was based on the performance of the 38 projects which had completed their PPE's by the end of December 2015. The PPE's completed represented 33% of all the projects completed, 42% of the total investment and 41% of the total grants paid and provide a good sample of outcome performance expected for the programme as a whole.
14. The evaluation showed that 78% of the enterprises who received funding from the scheme were micro or small enterprises and they received 56% of the total funding. A total of 340 applications were made for funding with one third of the applicants securing funding.
15. The PMG was open to applications from agri-food processors, groups of producers and individual producers. Producers only received funding if the project was for processing activities and not normal farm production. The PMG evaluation found that eligible projects covered a wide variety of activities including mechanisation of flower processing, farm shops, enhancement of farmer's market facilities for livestock selling, new tempering process for egg production, production of craft beers and niche products such as tea and pizza.
16. There were three categories of grant awards: 45.3% of budget was spent on buildings, 54.2% was spent on plant and equipment, and 0.5% was spent on technical costs. In early 2011 multiple applications from any beneficiary became no longer eligible in an effort to maximise the spread of the budget. A total of 16 enterprises received multiple grant awards before multiple applications were withdrawn.
17. Table 3 below provides the regional breakdown of applications by County. The table shows that the lowest number of applications was received from County Fermanagh (25) while the highest came from County Down (94). However in contrast, County Down had the lowest success rate at 24% while County Armagh had the highest success rate at 61%. Overall, County Armagh received the highest amount of funding accounting for 25% of the number of enterprises supported and 34% of the total grants paid. County Fermanagh saw the lowest number of enterprises supported at nine per cent but County Londonderry/Derry had the lowest amount of grants paid out at six per cent of the total.

Table 3 – Number of Applications by County.

Region	Number of enterprises applying for funding	Number of enterprises supported	Success Rate	Number of enterprises supported as % of total supported	Grant paid	Average Grant Paid
Antrim	62	21	34%	18%	£3.37m	£160K
Armagh	47	29	61%	25%	£6.86m	£237k
Down	94	23	24%	20%	£3.54m	£154k
Londonderry	42	12	29%	10%	£1.29m	£108k
Fermanagh	25	10	40%	9%	£2.16m	£216k
Tyrone	70	21	30%	18%	£2.98m	£142k
Total	340	116	34%	100%	£20.23m	£174k

18. Table 4 illustrates that overall interest was lower in the Western Counties of Northern Ireland resulting in lower awards of grant support. This outcome from the analysis of the applications to the scheme was not unexpected as only one third of Northern Ireland’s registered food and drinks processing businesses are located in the west of the province with counties Derry/Londonderry and Fermanagh in particular underrepresented in the sector.

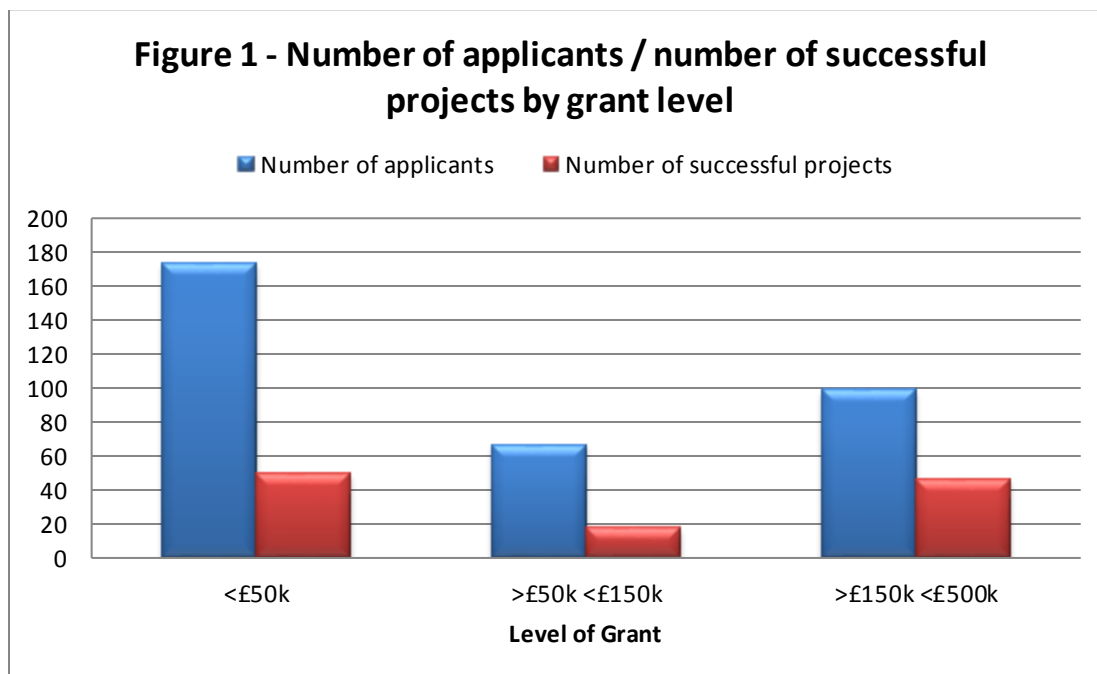
Table 4 – Number of Applications by East/West

Region	Number of enterprises applying for funding	Number of enterprises supported	Success Rate	Number of enterprises supported as % of total supported	Grant paid	Average Grant paid
East ¹	203	73	36%	63%	£13.77m	£189k
West ²	137	43	31%	37%	£6.43m	£150k

1. East (Counties Antrim, Armagh and Down)
2. West (Counties Derry/Londonderry, Fermanagh and Tyrone)

19. Around half of the enterprises who received a grant were in business for over 20 years and around 80% were in business for over five years. Only four per cent of enterprises who were awarded a grant were in their first year of business.

20. Figure 1 shows the number of applicants and the number of successful applicants for each grant level. The highest number of applicants applied for a grant of less than £50k or less with a success rate of 29%. The highest success rate at 47% was for those projects that applied for a grant of over £150k.



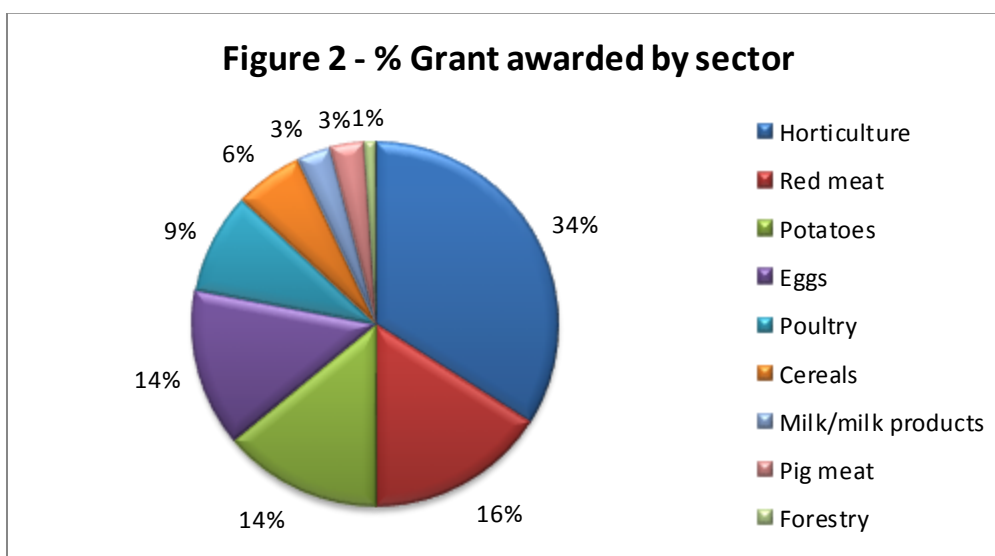
21. The number of Invest NI clients that applied for funding accounted for 51% of the total applications and 76% of the successful applications. Evidence from the breakdown of the applications in the PMG evaluation shows that applications made by Invest NI Clients were more successful in receiving an award of grant funding than applications received from non-Invest NI clients with a 44% success rate compared a 21% success rate respectively.
22. The net outcome was that 76% of the successful applications were made by Invest NI clients who received £18.25m of the grant funding at an average grant of £207k per project. This compares to 24% of the scheme's successful applications being made by non-Invest NI clients with a total grant paid of £1.98m at an average grant of £71k per project. The total average grant for both groups was £174k per project.
23. Invest NI has a large number of established agri-food businesses with a minimum turnover of £100k on its client list. These businesses needed greater sums of investment in order to compete and grow and were more business focused in developing their business cases. Non-Invest NI applications were often made by micro/small enterprises that had seen the scheme advertised, and applied before knowing what the process entailed. In total 32% of Non-Invest NI applications withdrew their applications once the requirements of a successful scheme became

clear. There was however only a one per cent difference in the success rate for Invest NI Clients and Non-Invest NI clients who reached the panel stage.

24. Table 5 breaks down the total grant award by sector and the percentage of grant awarded by sector is shown in Figure 2. The horticulture sector accounted for 34% of the total grant award and was double that of the nearest sectors of red meat, potatoes and eggs. The forestry sector accounted for only one per cent of total grant awarded. The average amount of grant paid per sector was £174k with the poultry meat sector averaging the highest at £350k per project and the lowest being the forestry sector which averaged £34k per project.

Table 5 – Total Grant and Average Award by Sector

Sector	Number of Grant Awards	Number of Maximum Grant Awards	Total Grant Award	Average Grant Award
Horticulture	36	4	£6.8m	£189k
Red Meat	19	3	£3.3m	£175k
Potatoes	18	2	£2.9m	162k
Eggs	10	1	£2.9m	£288k
Poultry Meat	5	3	£1.8m	£350k
Cereals	15	1	£1.1m	£75k
Milk and Milk Products	3	1	£0.6m	£196k
Pig Meat	2	1	£0.6m	£284k
Forestry	8	0	£0.3m	£34k



25. In order to assess the full impact of the PMG programme on its beneficiaries the evaluators analysed the impacts on competitiveness on each sector. The evidence available from the PMG Evaluation shows the extent to which the scheme contributed to the competitiveness of each sector as follows:

- **Horticulture** – The average grant received for this sector was nine per cent above the average PMG award. The 16 projects that had completed PPE's as part of the evaluation represented £3.3m (49%) of the total funding spent in the sector. The evaluation shows for these 16 projects that the volume of sales increased by £28m (34%), the volume of export sales increased by £24m (37%) and GVA increased by £3m (100%). Although, the figures show a positive contribution to increasing the competitiveness of the enterprises in this sector, the total sales and export sales figures were below their projected targets and the increase in GVA was equivalent to one third of the target.
- **Red Meat** – The average grant paid to projects in this sector was in line with the PMG scheme average per project. The eight projects that have completed their PPE's and were included in the evaluation represented £1.8m (55%) of the grants paid. The evaluation figures for these completed projects show that sales increased by £13m (72%) and export sales increased by £6m (100%) in line with their projected targets. This led to a £3.5m (219%) increase in GVA for the sector which was 63% higher than expected.
- **Potatoes** – The average grant paid to projects in this sector was seven per cent below the average PMG award. Only 3 projects had completed their PPE's at the time of the scheme evaluation representing £0.8m (28%) of the grants paid. The figures show for the completed projects that sales were up by £1m (5.5%) but they were well below the projected target increase of £8m (44.5%). There was no increase in the volume of export sales for these three projects compared to the targeted 67% increase of £4m. Despite this modest increase in sales returns the GVA of the three projects increased by £0.9m (150%) compared to a projected increase of £0.7m (117%).
- **Eggs** – The average grant paid to projects in this sector was 66% higher than the overall average. Half of the projects in the sector had completed their PPE's at the time of the scheme evaluation and they accounted for £1.5m (52%) of the grant paid. The total sales in the five completed projects increased by £56m (110%) more than double the projected increase and export sales increased by £40m (138%) nearly triple the projected increase. GVA for the five completed projects was expected to fall in the short term due to the initial investment by the enterprises but as a result of the larger than expected increases in sales the GVA increased by £3m (100%) to £6m.

- **Poultry Meat** – The average grant paid to the projects in this sector was more than double the average grant paid for the PMG scheme. At the time of the scheme evaluation only one project was completed and they had been paid a grant of £0.3m equivalent to 17% of the total grants paid. Although there was a small increase in export sales of £0.2m (2%) there was a £1m (7%) fall in total sales and the project was well below its projections for both. However, GVA did experience an increase of 500% from £0.1m to £0.6m but this was below the projected increase of £1.3m.
- **Cereals** – The average grant paid for the sector was less than half the PMG scheme average. At the time of evaluation there were three completed projects and they had received grant payments of £0.1m that accounted for nine per cent of the total sector spend. The figures show that there was an increase in total sales of £0.2m (25%) for the completed projects but this was 75% less than expected as sales were projected to double following investment from £0.8 to £1.6m. Export sales increased by 33% from £0.3m to £0.4m but this was only one third of the projected increase. GVA for the completed projects increased by £0.12m (150%) from £0.08m to £0.2m but again the GVA failed to reach the projected increase of £0.32m.
- **Milk & Milk Products** – The average grant paid to the projects in this sector was 13% above the average for the scheme. There was one project that had completed at the time of the evaluation and it accounted for £0.04m (7%) of the sector spend. There were no previous sales figures for this project as it was a new enterprise but as a result of investment the company now had £0.06m in sales which was 30% of the projected sales figure. Again, no export sales previously existed but after the investment the figure was £0.04m and 40% of the projected export sales. GVA for this new enterprise stood at £0.03m, 60% of the projected GVA target.
- **Pig Meat** – The average grant paid to the projects in this sector was 63% more than the scheme average. At the time of evaluation the project that received the maximum grant was the only one to have completed and accounted for 88% of spend in this sector. The total sales for this project increased by £3m (11%) from £28m to £31m and achieved 25% of the projected increase in sales of £12m. Export sales increased by 118% from £1.1m to £2.4m which was 13 times greater than the projected exports sales increase of £0.1m. GVA increased by 50% from £2m to £3m matching the projected target.
- **Forestry** – The average grant paid to projects in the sector was 20% of the PMG scheme average grant awarded. There is no information regarding the performance of the projects in this sector as no projects were completed at

the time of the evaluation. From the information that is available it can be seen that the interest in the forestry sector was around the average with 42 applications made. The success rate of 19% was below average and the third lowest of all the sectors.

26. Overall the PMG evaluation, based on the 38 completed PPE's, found that the total volume of sales increased by 47%, export sales increased by 61% and Gross Value Added increased by £12m. It also estimated that the net return on investment for the Northern Ireland economy as the result of the programme is between £1.65 to £2.28 for every £1 of investment. This takes in the multiplier impact on the economy and adjustments for deadweight and displacement.

Conclusion

27. In conclusion, it is the evaluators' opinion that the PMG Scheme made a significant contribution to improving the competitiveness of beneficiaries across the Northern Ireland agri-food sector. The most recent figures show that the Gross Value Added to the businesses of the beneficiaries is significant at €23.7m (£17.2m) based on 50 completed PPE's. This is further supported by the fact that the beneficiaries have seen their exports increase by 63% showing that they are more competitive outside Northern Ireland as a result of the introduction of new products and new techniques.
28. The impact indicators identified for the Measure show that the agri-food industry in Northern Ireland grew by 19.6% in real terms between 2007 and 2014 while Labour Productivity increased for the agriculture sector by 16% between 2007 and 2015. These impacts illustrate that the agri-food industry in Northern Ireland became more competitive over the course of the programme and the evidence from the PMG scheme's result indicators show that it made a contribution to the industry's increased competitiveness and growth.
29. Based on the evidence from the eight sectors with completed projects, the scheme contributed to improving competitiveness due to increased GVA in each sector. However, the contribution varies from sector to sector as the percentage increase in GVA, total sales and exports is widely variable. From the evidence provided in the 38 completed PPE's the largest contribution from the scheme in terms of competitiveness can be seen in the red meat and egg sectors. These sectors have experienced increases in total sales and exports sales with projections met or exceeded.
30. The sales increases in the egg sector have been very notable with a £56m total sales increase being driven by a £40m increase in export sales showing that the sector has become more competitive mainly in the international market. These sales increases are not reflected to the same extent in the increased GVA figures

with an increase from £3m to £6m. The red meat sector however experienced growth in GVA of 216% from £1.6m to £5.1m. The growth in the red meat sector sales of £13m was due mainly to increased domestic sales of £7m and increased export sales of £6m, therefore benefiting from significantly improved domestic and international competitiveness.

31. Horticulture's increase in sales of £28m was also largely driven by improved competitiveness in the export market with increased export sales reported at £24m. The poultry sector experienced a fall in total sales of £1m but a £0.2m increase in export sales and increased efficiency offset the fall in overall sales leading to a £0.5m increase in GVA. Similar to the red meat sector, the increase in total sales was mainly driven by increased domestic sales in the pig and milk sector projects but with export sales increases accounting for 43% and 40% of the growth respectively, improved competitiveness in the export market was still an important factor in their growth.
32. For those projects funded in the cereal market the increase in total sales was split evenly between the domestic market and export markets at £0.1m each and shows that improvements in competitiveness in this sector have been equally beneficial for both the domestic and export markets. The completed projects in the potato sector are the only projects not to show an overall growth in export sales as they have remained exactly the same. Therefore, improved competitiveness for the potato sector beneficiaries reflects entirely on its improved ability to compete in the domestic market.
33. Forestry was only open to micro enterprises and four of the eight enterprises were new to processing of their forestry products. As these enterprises are small in nature and are at the embryonic stage of their business development the average expenditure claimed was much lower than that of the other sectors and this was reflected in the much lower than average grant paid out for the sector at £34k. There is no information on actual outcomes as no forestry projects have been completed to date but sales are expected to increase by £281k almost exclusively driven by increased domestic sales of £269.5k (96%). This expected increase in domestic sales reflects that the projects are concerned with improving competitiveness in the renewable energy sector which has a growing domestic market. The net impact on competitiveness in the forestry sector is expected to be an increase in GVA of 187% from £29k to £83k.
34. In terms of the rationale for the intervention it is the evaluators' opinion that the logic used for the selection of Measure 1.2 (Adding Value to Agricultural and Forestry Products and Improving Marketing Capability) was robust due to the market failures identified in the Strengths Weaknesses Opportunities and Threats (SWOT) analysis carried out at the start of the Programme. There was a clear opportunity to improve competitiveness in the sector and increase the incomes of

both the agri-food sector and their producers by creating greater efficiencies and investing in the capacity of the agri-food sector to sustainably grow its market, both outside and inside Northern Ireland.

35. Although for some of the projects the PPE's that have been carried out show that some of the business case projections have not been achieved the evidence still suggests that there have been good returns on investment and the overall programme outcome targets are well on course to be achieved. The extent to which the Measure has improved the competitiveness varies across the different sectors but all the sectors have demonstrated an improvement in their competitiveness as a result of the investment.
36. In total there were 115 successful applications to the programme after one enterprise went into liquidation with action taken to retrieve the grant funding. However, this is one disappointing outcome in an overall successful intervention contributing to long term sustainable growth through investments in capital and innovation and quality in the food chain in line with the EU Strategic Objective for Axis 1.
37. In order to meet all the objectives of the scheme the Managing Authority were flexible in their approach to implementing the Measure and changed the application processes at various stages to cope with budget pressures, low uptake from small/medium enterprises and problems with beneficiaries providing match funding during the financial crisis. Therefore, based on the available evidence the PMG scheme achieved its overarching objective to improve the economic performance and international competitiveness of the agri-food and forestry sectors through taking a robust approach that led to the objectives they set for the intervention at the beginning being achieved.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

38. The effects of Measure 1.2 Adding Value to Agricultural and Forestry Products and Improving Marketing Capability were wide ranging with impacts on beneficiaries, non-beneficiaries, the wider rural economy and other objectives under the NIRDP programme.
39. Within Axis 1 policy makers set out to create synergies between Measure 1.2 and Measure 1.4 the Supply Chain Development Programme. The strategy envisaged that Measure 1.4 Supply Chain Development Groups would encourage actors in the supply chain to collaborate and develop new products. They would then apply to Measure 1.2 for help to develop a business plan and then apply for capital

investment to bring their product to market. Measure 1.2 was originally to consist of two grants, the Processing and Marketing Grant (PMG) scheme for investment in capital and the Marketing Development Grant (MDG) for investment in resources. However when it became clear that investment in resources was not eligible under Measure 1.2 the MDG scheme did not proceed as agreed. Despite this, one Supply Chain Group did benefit from funding in the PMG Scheme but the overall anticipated synergies were not realised.

40. There were positive effects on other programme objectives outside of Axis 1 as the Measure directly contributed to the overarching objective under Axis 2 to improve the environment and the countryside and the overarching objective under Axis 3 to improve the quality of life in rural areas and diversify the rural economy.
41. The EU strategic guidelines for Axis 2 highlight water and climate as two of the three EU priority areas that interventions should make a contribution to improving through the NIRD. A total of 55 successful projects under Measure 1.2 met the pre-requisite to encourage better use/elimination of by products/waste. This helped contribute to improving the water supply through reduced industrial/agriculture discharge into waterways, whilst reducing the amount of waste going to landfill sites contributes to reducing soil pollution that can also affect the water table. There were 15 projects that met the pre-requisite to promote the production and processing of renewable energy, making a contribution to reducing the impact of climate change by reducing the amount of carbon released into the atmosphere. There were ten projects that met both PMG scheme pre-requisites leaving a total of 60 projects (52%) that made a contribution to Axis 2 objectives.
42. The EU strategic guidelines for Axis 3 state “*The resources devoted to the fields of diversification of the rural economy and quality of life in rural areas under axis 3 should contribute to the overarching priority of the creation of employment opportunities and conditions for growth.*” The creation of employment was not a specific target for Measure 1.2 but according to the PMG Evaluation of 38 projects, the scheme resulted in the creation of 448 full time equivalent jobs, therefore directly contributing to the overarching objective of the creation of employment opportunities. The scheme also contributed to creating the conditions for growth of the rural economy as illustrated by the number of primary producers growing by 56% from 683 to 1,065. This will contribute to increasing income in the farming sector and help ensure that rural communities remain attractive for future generations.
43. Complementarity with other EU programmes was achieved by ensuring that projects that received other public/EU support were excluded from participating in the scheme. The potential for displacement was considered as part of the scheme scoring framework. According to the PMG Evaluation the Managing Authority had been presented with no evidence that displacement had arisen as a result of the

PMG and no complaints had been lodged regarding companies obtaining an unfair competitive advantage. Additionality of the projects to the economy was also considered as part of the scoring framework to ensure that the projects selected could not have taken place without public expenditure.

44. In conclusion the evidence shows that the PMG scheme contributed to and had a positive effect on:
- Meeting the overarching strategic objectives to improve the competitiveness of the agriculture and forestry sector.
 - Improving the environment and countryside.
 - Improving the quality of life in rural areas.
 - Ensuring consistency in the programming.
 - Providing complementarity between community instruments.

Measure 1.3 - Modernisation of Agricultural Holdings

Background

1. Modernisation of Agricultural Holdings was included under Axis 1 of the NIRDP with the objective of contributing to the competitiveness of agricultural and horticultural businesses in Northern Ireland. There were two schemes supported:
 - The Farm Modernisation Programme, and
 - The Short Rotation Coppice Scheme.

Farm Modernisation Programme (FMP)

2. At the outset of the programme, the farming community in Northern Ireland was characterised by low levels of income and productivity and had been subjected to increasing regulation. This was also a period when market returns were constrained by overseas competition and concentration of retail power. Added to this there was ongoing market failure resulting from farmers investing money to comply with environmental regulations at the expense of investing in the modernisation of their business.
3. The economic appraisal carried out for the development of a capital grant scheme highlighted these issues and concluded that a scheme was essential to encourage farm businesses to modernise their holdings. This would in turn improve efficiency through the introduction of new technologies and innovations, while also generating positive outcomes in the form of improved environmental and health and safety conditions.
4. At the time there were no other capital grant schemes open to Northern Ireland farmers which may have placed them at a disadvantage compared to farmers in the bordering Republic of Ireland who were benefiting from a Farm Improvement Scheme with a budget of €79m.

Short Rotation Coppice (SRC)

5. Short Rotation Coppice is a specialised form of forestry plantation that involves growing high yielding trees, such as willow, at close spacing and then harvesting at regular intervals (every two to three years). The harvested crop is usually converted into wood chips that can be used as fuel to generate heat and electricity. The scheme was included to meet the need for a wider renewable energy market in Northern Ireland as identified through the Northern Ireland Energy and Sustainable Development Strategies^{7,19}. In particular, the Energy Strategy included a target that aimed to promote centralised and embedded renewable energy generation which could be fully integrated into the rural economy, offering enhanced opportunities for diversification and wealth creation.

How and to what extent has the Measure contributed to improving the competitiveness of the beneficiaries?

Farm Modernisation Programme (FMP)

6. Support from the FMP scheme was provided for investments that improved the overall performance of the farm business. Selection of eligible investments was made on the basis of their contribution to the objectives of the intervention. Support was targeted at:
 - Investments to introduce new technologies and innovation e.g. electronic livestock identification readers.
 - Investments to improve animal health and welfare e.g. automatic animal feeding systems, rubber matting.
 - Investments for hygiene control and product storage e.g. provision of ventilation, refrigeration and sterilisation equipment.
 - Investments to improve occupational safety and business efficiency e.g. mobile livestock handling facilities.
 - Investments for positive environmental impact e.g. automatic slurry scrapers.
 - Investments in energy efficiency e.g. wood chipping, rain water harvesting, adoption of energy efficiency technologies.
7. The Manure Efficiency Technologies Scheme (METS) was included under the FMP scheme with a ring-fenced budget as it complimented the Farm Nutrient Management Scheme (FNMS). DARD had implemented the nationally funded, £121m Farm Nutrient Management Scheme to assist with compliance with the Nitrates Directive. Funding was available for the upgrading of existing and the construction of new facilities within farms for the storage of slurry and manure. However, beneficiaries were only able to receive support for any given operation under one of the schemes.
8. The purpose of METS was to encourage the uptake of new slurry spreading technology to help farmers achieve greater nutrient efficiency from manures and slurry which would lead to improved water quality and reduced greenhouse gas emissions. Additionally this would lead to improved nutrient management on farms. It was envisaged that investment would be made in either the full slurry spreading system, incorporating the tanker with the trailing shoe or slurry injection equipment attached or by purchasing the specialist equipment separately and attaching to an existing tanker.

9. The key objectives for METS were to:
 - Help protect and enhance the environment by improving the management of manures on farm.
 - Improve nutrient efficiency of manures by reducing input costs for farmers by decreasing chemical fertiliser requirements.
 - Help to improve water quality in rivers and lakes and help to achieve compliance with the EU Nitrates Directive and EU Water Framework Directive.
 - Decrease greenhouse gas emissions from increased nutrient efficiency of manures and reduced chemical fertiliser use.
 - Benefit the wider public with reduced odour from slurry spreading through increasing the use of advanced slurry spreaders.
10. The FMP and METS schemes were delivered by the CARP delivery agent and payments to beneficiaries were issued by DARD ensuring that operations supported under this Measure had no alternative means of support. A standard list of eligible items for support was prepared in conjunction with CAFRE and feedback was sought on the list from key informants. The scheme was phased in to allow adjustments to the selection criteria and to allow additional items to be added to the standard eligible list as new technologies became available. This approach was taken to maximise the sectoral and geographical spread in addition to maximising the competitive outcomes.
11. The FMP Scheme was rolled out in three tranches with Tranche 1 opening for applications on the 17th February 2009 and closing on the 31st March 2009. The minimum level of financial support that could be requested was £1,000 and applications were assessed on a first come first served basis. In total there were 9,984 applications received for FMP and METS in Tranche 1 that resulted in 1,017 (10.2%) successful awards of grant payments and a total volume of investment (public + private) of €12.5m.
12. Tranche 2 opened for receipt of applications on 18th October 2010 and closed on 26th November 2010. As a result of a review of Tranche 1 there were changes made to the operation of the scheme that included, amongst other things revising, the scheme management arrangements and scoring system.
13. Tranche 3 of the FMP opened for applications between 4th September 2012 and 19th October 2012 again incorporating changes identified as a result of a review of Tranche 2. The scoring weight was increased for young farmers (under 40) as they were identified as the most likely group to invest in farm modernisation. Tranche 3 of the METS scheme opened for applications between 31st March 2014 and 25th April 2014.

Short Rotation Coppice

14. The scheme was administered by DARD and grants were provided to beneficiaries to contribute to the cost of establishing approved willow energy crops. There were a total of 80 successful applicants to Short Rotation Coppice scheme who received a total volume investment of £0.87m (€1.22m) to plant 449 ha of land.

Outcome and Evaluation

15. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Quantified targets for EU common indicators – Measure 1.3 (Farm Modernisation Programme).

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of farm holdings that received investment support	<i>FMP + METS</i> Tranche 1 1,017 ¹ <i>FMP</i> Tranche 2 1,894 Tranche 3 1,780 Tranche 3 652 (Extension) Total 5,343	6,709 (include METS)
		<i>METS</i> Tranche 2 148 Tranche 3 75 Total 223 <i>Overall Total: 5,566</i>	
	Total volume of investment	<i>FMP + METS</i> Tranche 1 €12.5m (£10.72m) Tranche 2 €14.5m (£12.37m) Tranche 3 €12.84m (£10.87m) Tranche 3 (Extension) €4.24m (£3.42m) Total €44.08 (£37.38)	€63.4m (includes METS)

	Indicator	Final Position Reported	Target 2007-2013
		<p><i>METS</i></p> <p>Tranche 2 €4.41m (£3.8m)</p> <p>Tranche 3 €2.37 (£1.8m)</p> <p>Total €6.78 (£5.6m)</p> <p><i>Overall Total:</i> €50.86m (£42.98m)</p>	
Result	*Number of holdings introducing new products and/or techniques	NA	Not applicable
	Increase in gross value added in supported enterprises	NI	3,998 (includes METS)
Impacts	Economic Growth	Increase 19.6%	Increase by 2%
	Labour Productivity	Increase 16% ²	Increase by 2%

- 1,017 is the total number of farm holdings that received support. 933 received support for FMP items only, 4 received support for METS items only and 80 received support for both.
- Calculated as the ratio of net value added at constant prices to total labour input (in Annual Work Units) between 2007-2015. Base year = 2010.

Table 2 - Quantified targets for EU common indicators – Measure 1.3 (Short Rotation Coppice programme)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of beneficiaries receiving investment support.	80	45
	Total volume of investment	€1.22m (£0.87m)	€1.3m
Result	Increase in gross value added in supported enterprises	NA	Not applicable
Impacts	Net additional value expressed in PPS	NA	Not applicable
	Change in the gross value added per full time equivalent	NA	Not Applicable

Table 3 - Additional programme-specific indicators and quantified targets - Farm modernisation programme

	Indicator	Final Position Reported	Target 2007-2013
Result	Number of farm businesses adopting new plant, machinery and equipment to introduce new IT systems; improved animal welfare investments; increased hygiene control or product storage standards; systems to enhance business efficiency; enhanced environmental systems; or improved energy efficiency systems	<i>FMP + METS</i> Tranche 1 1,017 <i>FMP</i> Tranche 2 1,894 Tranche 3 1,780 Tranche 3 652 (Extension) Total 5,343 <i>METS</i> Tranche 2 148 Tranche 3 75 Total 223 Overall Total: - 5,566	6,461 (includes METS)
		Number of participants indicating the Measure had a financially positive effect on their farm business	

1. Survey of 361 farm businesses in receipt of 10 most popular FMP items in 2015 and a Survey in 2015 of METS Tranche 1 and Tranche 2 recipients produced a range of between 60%-97% reporting a positive financial impact across the individual items and METS.

Table 4 - Additional programme-specific indicators and quantified targets - Short Rotation Coppice programme.

	Indicator	Final Position Reported	Target 2007-2013
Result	Number of farm holdings receiving investment support that have participated in schemes funded under NIRDP Measure 1.1	N/A	Not Applicable
	Areas under successful management contributing to Northern Ireland Renewable Energy Obligations	449ha	500ha
Impact	Number of participants indicating the Measure had a financially positive effect on their farm business	66.7% ¹	5170

1. Survey carried out by the ex post evaluation team in May 2016 on 21 SRC successful applications found that 66.7 per cent of the participants reported that the scheme had a positive financial impact on their business

16. In total, there were 5,646 awards of grant funding across the three schemes and a total volume of investment of £43.85m (€52.08). Although, the targets were not achieved in terms of number of beneficiaries and total volume of investment, the total grant funding allocated to the Measure was spent. A modification to the programme in June 2014 increased the national financing for the Measure to fund a further tranche of FMP. The targets of the scheme were also increased from 4,225 to 6,709 in line with the additional funding. This additional tranche did not proceed due to restrictions on the maximum expenditure permitted under the scheme level business case. Additional letters of offer were issued to applicants of tranche 3 to use the 10% flexibility on expenditure permitted in the business case. As tranche 4 did not proceed the amended target was not achieved.
17. Interest in the FMP and METS schemes in particular was extremely high with over 24,860 applications received and 7,887 letters of offers made to applicants for grant funding to purchase items to help modernise their farm businesses. However, 29% of the successful FMP and METS applicants did not proceed with their application after the letter of offer stage.
18. The contribution the Modernisation of Agricultural Holdings has made to the competitiveness of its beneficiaries is difficult to measure in the absence of hard factual evidence from the EU result indicator on the Gross Value Added to each business as a result of participation of the programme. However the changes in the sector as a whole across the programming period can be considered.
19. The EU impact indicators show that labour productivity in the Northern Ireland agriculture sector has increased by 16%, while the agri-food sector has grown by 19.6% between 2007 and 2015. GVA specific to the agriculture sector (farming) in income terms has fluctuated throughout the period of the programme due to a number of external factors including fluctuating prices. However, GVA specific to the agriculture sector in output terms over the period 2007 to 2015 has increased by 14.8% showing that the agriculture sector in Northern Ireland has increased its production levels.
20. There was no information collected to show the exact number of participants indicating the Measure had a financially positive effect on their farm business. However, information from the Surveys carried out for the 2015 PPE's is a useful approximation of the impact of the scheme. The evaluators also carried out a survey on SRC beneficiaries in May 2016. The results from all 3 surveys on the financial impact of the actions are as follows:

Table 5 – Survey of financial impact for the Measure

Item	Indicating a positive financial impact
Slat Mats	65%
Livestock Trailer	60%
Diet Feeder	87%
Cow Mattresses	66%
Bulk Bins	77%
Auto Calf Rearing Systems	97%
Scrapers	97%
CCTV	78%
Cow Heat Detection System	97%
Potable Sheep Pens	93%
METS	64.6%
SRC	66.7%

21. The table shows that there is a range between 60%-97% of beneficiaries across the Measure's three schemes reporting that the grant assistance had a positive financial impact on their business. This would indicate that the intervention has made a positive contribution to improving their competitiveness.
22. In order to assess the full contribution to the competitiveness of beneficiaries, the evaluators have analysed all available information on the three schemes individually.
23. According to the FMP and METS Post Project Evaluation in 2015 the FMP scheme largely made grant awards in line with the relative size of the sector. The Grazing and Livestock sector, which represents 58% of the Northern Ireland farming industry, had the most beneficiaries and accounted for 37% of the Tranche 1 awards and 67% of the Tranche 2 awards. The Dairy sector was the only sector out of line with its relative size accounting for 11% of the Northern Ireland farming industry but 33% of the Tranche 1 successful applications and 21% of Tranche 2 successful applications. There was no breakdown available for each sector in Tranche 3 on the same basis.
24. Evidence from the FMP and METS Post Project Evaluation shows that applications from very small farms in Tranche 1 of the FMP scheme accounted for 54% of the total applications and 37% of the successful applications. This is lower than would have been expected as 76% of Northern Ireland's farms are very small. In order to encourage an increase in applications from this group more points were awarded in

Tranche 2 for applications from Less Favoured Areas which contain 73% of Northern Ireland's very small farms. Although this change resulted in increased interest from very small farms and a more representative proportion of successful applications (57%), it also contributed to a large under-spend in Tranche 2 due to affordability issues being more prevalent in these areas. The increased point scoring based on land classification was therefore removed from the third tranche of the scheme.

25. The review of METS after Tranche 1 also identified that very small farms were being disadvantaged by economies of scale after Tranche 1 and opened the scheme up to collective applications for support in Tranche 2. A points scoring system that awarded more points the higher the total volume of slurry to be spread in order to give more weight to collective applications was also introduced. This point scoring system was retained for Tranche 3 after a review was carried out indicating some level of success.
26. In terms of age, 17% of Northern Ireland farmers are aged under 45 years of age²³ and the successful applications for FMP show that the uptake by young farmers increased from 24% in Tranche 1 to 54% in Tranche 2, before falling to 44% in Tranche 3. These figures reflect the targeting of young farmers after Tranche 1 in keeping with the targeting recommendation made in the NIRDP Mid-term evaluation.
27. With regards to the FMP items supported, the PPE showed that 57% of the grants paid in Tranche 2 and Tranche 3 were to invest in items under the most modernising category (Band 1), while 15.5% was invested in intermediate modernising items and 27.5% was invested in the least modernising items.
28. The FMP and METS PPE also carried out an assessment of the Additionality on the ten most popular items and estimated an additional range of between 70% - 92.5% to the Northern Ireland economy i.e. there was only a 7.5% - 30% chance of the same equipment/less costly equipment being purchased without support from the scheme.
29. The evaluators carried out a survey on all METS Tranche 1 and Tranche 2 recipients in spring 2015 and reported that 64.6% of the beneficiaries indicated the scheme had a financially positive income on their business of more than £500 per annum. The rest of those surveyed did not state the financial benefit of the scheme to their business. Most of the benefits derived from the METS scheme were environmental as support provided farmers with the means to meet their farming environmental requirements. Higher grass yields were reported as excellent by 96.9% of those surveyed and along with the excellent higher application rates reported during growing season (53.8% of those surveyed) would have the knock on effect of increasing production levels of meat, milk and crops.

30. A survey carried out by the evaluators in May 2016 on 21 (26%) SRC successful applications found that 66.7% of the participants reported that the scheme had a positive financial impact on their business. This result is not entirely surprising as 23.8% reported they hadn't sourced a market for their product. Out of those surveyed, 90.5% reported that they had retained their SRC plantation, while the 9.5% who had not retained their plantation indicated it was because the market failed to materialise. The survey also found that, out of the 19 beneficiaries who have retained their SRC plantation, 31.6% reported that, there had been no positive financial impact on their business.

Conclusion

31. In conclusion, the evidence from the economic appraisal clearly and accurately identified the need for Measure 1.3 (Modernisation of Agriculture Holdings) to be implemented as a part of the NIRD 2007-2013. Market failures were prevalent in 96% of FMP Tranche 3 recipients surveyed by the DARD in 2015 and were leading to low incomes and productivity. This made it difficult for the farming industry to modernise and to meet the challenges from greater environmental regulations and increasing competition. The FMP and METS schemes in particular were well designed with a wide range of items available to farmers to modernise their business and become more competitive in an increasingly globalised market place. The intervention logic was robust and the staggered implementation of both the FMP and METS schemes allowed implementation changes throughout to meet the needs of the Northern Ireland farming industry and ensure successful outcomes.
32. FMP in particular made a significant contribution to the competitiveness of beneficiaries, as evidenced by the FMP and METS PPE. This highlighted considerable labour efficiencies, cost savings and increased outputs associated with the ten most popular items purchased through the scheme. The amount of the contribution to competitiveness varied depending on the item but overall the contribution was significant with some participants investing in multiple items. Although the METS scheme was less concerned with making production efficiencies and more concerned with helping farmers meet the increasing costs of their environmental regulations, there was still a contribution made to improving competitiveness of the beneficiaries.
33. The evaluators conclude from the intervention logic for the SRC scheme that it was designed to encourage the growth of planting of a renewable energy crop in order to contribute to meeting the renewable energy needs of the Northern Ireland Energy Strategy. Although there was no clear element of modernisation, the scheme did make a contribution to improving the competitiveness of agricultural and horticultural business by supporting farmers to develop an alternative income from land that was unsuitable for agricultural use.

34. With respect to the SRC scheme it is the evaluators' assessment that the scheme could have had a more positive effect if a more flexible approach had been taken. Evidence from the evaluation of other Measures show that SRC beneficiaries could have benefitted from:
- Forming supply chain co-operation groups under Measure 1.4 to undertake research to bring their renewable energy product to market; and
 - Applying to the PMG scheme under Measure 1.2 to gain capital support to process their crops and bring them to market.
35. Overall the FMP scheme has been shown to have made a positive contribution to improving the competitiveness of beneficiaries with the extent of the improvement depending on the item purchased. METS and SRC have improved competitiveness to a lesser extent but this is in keeping with the greater focus of these schemes to meet environmental regulatory requirements. The Measure has also had a positive impact on young farmers but, despite various changes to the scheme, failed to attract as many very small farms as would have been desirable.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

36. There were a number of effects resulting from Measure 1.3 (Modernisation of Agricultural Holdings) for beneficiaries, non beneficiaries, other NIRDP objectives/axes and the wider rural economy.
37. Measure 1.3 was anticipated to contribute to the EU strategic objective for the NIRDP to ensure consistency in the programme by providing synergies with Measure 1.1 schemes such as Focus Farms and Family Farm Options. Synergies would be achieved through the provision of advice and guidance leading to the uptake of new technologies and innovations through FMP and METS. There was no evidence to measure that the link successfully developed but the findings from Focus Farm scheme visitors survey (55% invested in New Technology/Innovation) and Farm Family Options Mentoring scheme beneficiaries survey (44% invested in equipment/buildings) provide anecdotal evidence that the link occurred.
38. The EU strategic objective of complementarity with other EU community instruments was also ensured by scheme rules and administrative checks that prevented co-funding from taking place with any other public funding streams.
39. Measure 1.3 contributed to the Axis 2 EU strategic objective to improve the environment and countryside mainly through the METS scheme. A survey of METS Tranche 1 & 2 beneficiaries as part of the FMP and METS PPEs found that as a result of scheme:
- 99 per cent rated their utilisation of Nitrogen as good or better,

- 96.9% rated their ability to reduce chemical fertiliser use as good or better, and
 - 100% rated the benefit of reduced odour as excellent.
40. These benefits from METS directly contributed to the EU priorities under Axis 2 of reducing nutrient loss from soils, reducing discharges into the water supply and reducing greenhouse gas emissions into the atmosphere. It is anticipated, therefore, that there will have been a positive impact on high nature value farming, water and the impact of farming on climate change.
 41. Many of the items beneficiaries were supported to purchase under the FMP scheme contributed to Axis 2 priorities and objectives. The 10 most popular items surveyed in the PPE all contributed to improved animal welfare, meeting the high nature value farming priority. The proportion of beneficiaries reporting this as a benefit depended on the item with a range of between 39%-100%. Four of the most popular items were reported by beneficiaries to have resulted in general environmental improvements with the proportion again dependent on the item with a range of between 2%-43%.
 42. SRC made a contribution to the Axis 2 priorities and objectives of improving biodiversity, preserving the natural landscape and reducing climate change. Forestry cover of the landscape in Northern Ireland at the beginning of the programme was lower than the rest of Europe at six per cent. By planting 449 ha of willow the scheme made a small contribution to: increasing the forest cover of Northern Ireland; providing more habitats for wildlife; and mitigating the effects of climate change by increasing tree cover to remove CO₂ from the atmosphere and providing a greener renewable energy crop.
 43. All three schemes made a contribution to improving the quality of life in rural areas under Axis 3 by improving the countryside through more environmentally friendly farming methods that keep rural areas attractive for future generations. In addition to reducing odours in the air, improving the quality of waterways, providing more forest environments and reducing the carbon foot-print, the Measure has helped to maintain strong rural communities by increasing incomes of farmers and the wider rural community through the multiplier effect. A total of nearly £44m has been invested through Measure 1.3 and the post project evaluation states that much of that money was spent on items supplied from rural businesses providing them stability during a period of economic uncertainty.
 44. There is no evidence that either the FMP or METS schemes disadvantaged non beneficiaries. Investments were spread across the various sectors and relatively in proportion to both sector size and number of applications received. There is no available evidence of the SRC scheme disadvantaging non beneficiaries and the occurrence of any disadvantage for a particular group was unlikely due to low levels of uptake.

45. There was very little displacement as result of the FMP scheme with the FMP and METS PPE noting that DARD had identified six of their 230 available FMP items having a potential for causing displacement. The PPE team went on to carry out a survey on 95 out of the 790 beneficiaries who received support for one of the six items with potential displacement. The survey found that the rate of displacement was 31% meaning that in 69% of instances the purchase of the equipment had no negative effect on a rental or contractor business and 90% of those surveyed indicated that the purchases provided greater responsiveness when conditions were favourable to the item's use and enabled better work planning as they were no longer on a contractor's priority list. Although the Green Book guidance is that only items that do not cause displacement should be funded, there is scope for displacement if greater benefits are achieved. The evaluators concur with the findings of the PPE team that in this instance the benefits of greater flexibility outweigh any displacement.
46. Displacement from contract and hire businesses as a result of METS investments was 50% according to a survey carried out on METS Tranche 2 and Tranche 3 beneficiaries as part of the PPE. Again, 88% of those surveyed indicated that benefits of the investment outweighed the displacement factor as it enabled them to be responsive to the right spreading conditions, reduced their costs and enabled them to be more flexible in the planning of their work. It was also noted that demand for slurry shoe services exceeded supply in Northern Ireland and only ten per cent of the volume of slurry spreading was through METS-type equipment. Therefore, in addition to the benefits outweighing the impact of the displacement, it is the evaluators' opinion that overall displacement from the hire sector is unlikely as there is more than enough demand from non beneficiaries of the scheme to meet the supply.
47. In conclusion, the effects of Measure 1.3 Modernisation of Agricultural Holdings have largely been positive for the Northern Ireland Agricultural Sector, wider objectives of NIRD, rural economy and rural communities. The Measure has contributed positively to beneficiaries by helping them not only to improve their competitiveness but by encouraging them to use more environmentally friendly farming technologies.
48. The evaluators would also anticipate that improved competitiveness created by the Measure for its beneficiaries will help support long term sustainable rural communities through increased farming incomes.

Measure 1.4 – Supply Chain Development Programme

Background

1. Measure 1.4 Supply Chain Development Programme (SCDP) was included in Axis 1 of the NIRDP 2007-2013 as the need for increased co-operation in the Northern Ireland agri-food industry was well established in both DARD's Vision²⁴ and Fit for Market²⁵ strategies. In addition, CAP reform, EU enlargement and developments in World Trade Organisation negotiations had compounded the need for change. With the continued backdrop of low prices for farm produce and falling agricultural incomes, improved co-operation was recognised as a key means of increasing economic returns in rural areas. Co-operation was also viewed as an opportunity to introduce energy crops as a viable alternative to food production on many farms and therefore help in meeting renewable energy targets.
2. A key element of improved co-operation was believed to be increased communication and integration between supply chain partners. It was noted, that while previous EU supported programmes had focused on improving the marketing of agricultural products, there remained a need to nurture a collaborative ethos between primary producers and processors/end users. It was thought that by creating an effective culture of collaboration and integration with stakeholders that considerable value would be added to the supply chain. Policy makers believed that as collaboration was never a "cornerstone of NI agriculture and more specifically agricultural marketing" a major cultural shift would be required to make progress.

How and to what extent has the Measure contributed to improving the competitiveness of the beneficiaries?

3. The support under Measure 1.4 SCDP was primarily aimed at early stage enterprises/projects (producers-farmers and food producers) that had not yet developed relationships with their supply chain partners. The support sought to move participants to a stage where they would be confident to adopt new supply chain processes and avail of the opportunity to gain greater knowledge of the processors and retailers requirements for the marketing of their end product.
4. At the end point of the support it was believed that some supply chain groups would be ready to consider the funding opportunities offered in the Processing and Marketing Grant Scheme (Measure 1.2).

²⁴ "Vision for the Future of the Northern Ireland Agri-Food Industry", 2002, page 33, Key Theme B, *Strengthening the Agri-Food Supply Chain*.

²⁵ "Fit for Market", The Report of the Food Strategy Group, July 2004, pages 18 (Primary Producers), 28(iv) and 33 (C). www.fsip-ni.com/index/publications

5. The overall approach to the scheme was one of support and encouragement to groups of producers. The sectors proposed for inclusion in the scheme were red meat, pig meat, poultry meat, eggs, milk and milk products, potatoes, cereals, horticulture (including flowers, fruits and vegetables) and renewable energy and forestry (including short rotation coppice). Groups could receive support from this programme for a maximum of 2 years and successful groups received support worth a maximum of £35,000.
6. Following selection through a competitive process the CARP was appointed as the delivery agent for the scheme. They recruited facilitators and specialist mentors to work with groups at various stages of their projects for the following outcomes:
 - The Groups would develop into successful going concerns, with appropriate structures, systems and processes, with a developing supply chain for their products and services.
 - The group would work through their business concept to the point where they would make an informed and sound decision of the viability of the group and if the concept was not viable or deliverable, the group would disengage from the scheme and either dissolve as a group or go in a different direction.

Outcome and Evaluation

7. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015. It should be noted that the basis for the target figure for Gross Value Added (GVA) in supported enterprises is unreliable and therefore is not considered within the evaluation.

Table 2 - Quantified targets for EU indicators

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of cooperation initiatives supported	64	60
Result	Number of enterprises introducing new products and/or techniques	35	20 (techniques) ¹
	Increase in gross value added in supported enterprises	€2.48m (£1.8m)	600,470
Impacts	Economic Growth	Increase 19.6% ²	Increase by 2%

	Indicator	Final Position Reported	Target 2007-2013
	Labour Productivity	Increase 16% ³	Increase by 2%

1. Technique in this instance refers to changes in the supply chain process i.e. expecting 20 new functional supply chain initiatives to emerge.
2. Economic growth of agri-food (agriculture and food and drinks processing) between 2007-2014 at constant prices base year=2010
3. Calculated as the ratio of net value added at constant prices to total labour input (in Annual Work Units) between 2007-2015. Base year = 2010.

Table 3 - Additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of businesses participating in data collection	1,382 ¹	1,800 ²
Result	Number of groups producing an action plan	56	45
	Number of groups submitting applications to NIRDP Measure 1.2 following support under this Measure	1	25
	Number of farm businesses that successfully completed benchmarking	1,595	1,500

1. There were 7,256 datasets bench marked between Jan 10 and March 15. Over 63 months of the programme this averages at 115.17 per month and 1,382 over a 12 month period.
 2. 1,800 target was based on datasets benchmarked in 12 month period rather than farm businesses.
8. In terms of the EU quantified target indicators, the scheme contributed to improving the competitiveness of its beneficiaries by spending £1.6m (€1.9m) to support 64 co-operation initiatives in their efforts to develop a supply chain for their products and services, exceeding the targets set. This resulted in 35 enterprises introducing new products and/or techniques and increased GVA for the enterprises of £1.8m (€2.48m).
 9. In terms of the programme specific indicators, there was an average of 1,382 datasets benchmarked in a 12 month period between January 2010 and March 2015 achieving 76.8% of the target set at 1,800. The number of groups that produced an action plan was 56, exceeding the target set at 45, while only one

group submitted an application to Measure 1.2 following support received under Measure 1.4. There were a total of 1,595 businesses who participated in benchmarking, over the course of the programme, exceeding the target of 1,500.

10. The impact indicators show that labour productivity in the Northern Ireland agriculture sector increased by 16%, while the agri-food sector experienced economic growth of 19.6% between 2007 and 2014. The contribution this scheme made to the increased competitiveness in the Northern Ireland agri-food sector as displayed by the impact indicators is small as the increase in GVA for beneficiaries is only £1.8m per annum. However, to establish the full impact of the scheme on improving the competitiveness of beneficiaries, the outcomes for the beneficiaries identified in the Measure PPE completed in September 2015 have been analysed.
11. The scheme opened for applications in January 2010 and closed for new applications on 30th April 2013. There were 15 feeder events to promote the scheme on a sectoral basis. However, this only resulted in recruitment of three out of the groups recruited for the programme. It was noted in the Measure 1.4 Supply Chain Development PPE that the key strength of the scheme's recruitment and promotion was the DARD advisers and DARD offices. Following recruitment, groups were entitled to 5 days of pre-facilitation to consider their concepts and ideas and complete the application form before receiving up to another 45 days post application.
12. Facilitation was delivered to 65 groups in total by 21 facilitators and 64 groups went on to receive a letter of offer. The groups were from nine sectors with renewable energy the most prevalent sector at 16 groups. Horticulture and red meat were the second most prevalent sectors with nine groups each, whilst the milk/milk products sector had four groups. Other sectors represented included poultry, artisan food producers and biodiversity.
13. Before an application for support services could be submitted, groups in consultation with their facilitator had to devise an action plan to allocate roles within the group, set objectives and timescales and carry out a needs analysis. The needs analysis guided the groups to determine their needs under the following categories:
 - Business development;
 - Training and learning outcomes;
 - Information/knowledge gaps;
 - Research;
 - Specialist mentoring;
 - Networks;
 - Market information; and
 - Other activities

In total 56 groups devised an action plan which exceeded the target of 45.

14. Following facilitation and the formulation of an action plan, groups were able to access funding for business tools, specialist mentoring, study tours, training and co-operation support.
15. There was a total budget spend of £619,759 on Facilitation and Specialist Mentoring as part of the scheme. The PPE carried out a survey on 37 lead applicants to measure the performance of the facilitators and 28 responses were received. The survey found that 86% of the beneficiaries were at least satisfied with their facilitator and 64% thought the facilitator's expertise matched the needs of the group closely or very closely.
16. Specialist mentoring was received by 14 groups with a collective total of 74 days of specialist mentoring received. Marketing was the most popular topic for discussion with the main focus on producing a marketing strategy. Business advice was also popular with the groups advised on business structure and sales strategy in particular. Twelve groups provided written feedback on the mentor's performance in the PPE. Out of the groups that provided feedback, 83% were at least satisfied with the support they received.
17. According to the PPE 29 groups received £98,153 in grant payments for Business Tool support. Some groups were funded for more than one type of Business Tool with the three main areas being website development (21 groups), logo design (18 groups) and promotional materials (14 groups funded). Feedback from the groups in a survey carried out as part of the PPE indicated that 89% were at least satisfied with their Business Tools support.
18. There were 25 groups who availed of funding in training opportunities. The biggest beneficiary of the training funding was the renewable energy sector with 11 groups receiving 36% of the training budget although the red meat sector benefited the most on average with three groups receiving 18% of the budget. The PPE noted that most of the training delivered was production orientated and opportunities were missed for the development of IT, financial and marketing skills training. Many groups also did not make use of food technology training in CAFRE - a resource that could have added value to their project.
19. Co-operation Support was received by six groups with a total grant expenditure of £9,777. Financial support under this category was for legal and financial advice, mainly as most of the groups were at an early stage of development. Out of the six groups who availed of the support 100% indicated that they were at least satisfied.
20. There were 24 groups who received study tour funding with five groups participating in two tours making a total of 29 tours taking place at a cost of £23,711. Destinations included the Ireland, Scotland, England, Demark, Germany and Netherlands. Out of the 24 groups there were 22 responses to a survey conducted by the post project evaluation team with 86% indicating they were at

least satisfied with the support received. Beneficiaries indicated the study tours were a positive experience allowing them to network with other groups at a more advanced stage of product development than their own. This allowed them to improve their technical skills, management and marketing skills by sharing best practices. Other advantages of the tours were that some groups were able to identify potential export markets and one group ended the production of free range pork after a tour as they realised their concept was not viable.

21. There were 24 groups deemed inactive by the end of the programme with five groups who failed to undertake any activity whatsoever. However, some of the groups made an informed decision to stop functioning due to difficulties faced in bringing their new products/techniques to fruition. A positive outcome for the programme was reported in the PPE with 45 groups reporting that they had developed new skills as a result of the programme. There were 38 groups who reported participation in the scheme improved their technical skills, 39 who said it improved their business skills and 37 who reported improvements in their personal skills.

Conclusion

22. From the evidence available it is clear that the rationale for the selection of Measure 1.4 (Supply Chain Development Programme) as part of the NIRDP 2007-2013 was based on the needs of the agri-food sector to develop a more coherent and competitive supply chain approach in the face of increasing competition caused by globalisation. The impact on improving competitiveness was largely positive with the EU quantified targets set for the number of enterprises introducing new products and increases in participating groups GVA exceeded. The survey results presented above provide anecdotal evidence of a positive impact on competitiveness from each of the activities undertaken.
23. Overall, the evidence shows that the Measure achieved the main objective to increase the number of successful new collaborative initiatives in the agri-food and forestry sectors by creating 64 supply chain groups that introduced 35 new products or techniques. The scheme also achieved its secondary programme specific objective through the provision of a benchmarking scheme with 1,595 businesses participating. By achieving these objectives the Measure has to some degree improved the competitiveness of the 54% of participant groups who introduced a new product or technique and the 70% of participant groups who reported they acquired new business skills as a result of the programme. The Benchmarking element of the Measure exceeded its target and enabled beneficiaries to become more competitive by comparing their business and learning lessons from other similar businesses. The impact of Benchmarking on competitiveness is covered in more detail under Measure 1.1.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

24. The implementation of the Measure had a number of other effects for scheme beneficiaries, non beneficiaries and wider NIRDP objectives/axis. Measure 1.4 was designed by policy makers with a direct link to Measure 1.2 (Adding Value to Agricultural and Forestry Products and Improving Marketing Capability). This contributed to the EU Strategic Objective to ensure consistency in the programme by creating synergies with other objectives under Axis 1. Policy makers expected at the outset of the programme that when SCDP Groups had progressed to the end point of their product/technique development that some would be able to secure grant support under Measure 1.2 in order to bring their product to market.
25. The first step anticipated was applying for support under the Agricultural and Food Marketing and Development Grant Scheme (MDG) to help with resources to market their product before applying for a capital grant to support production under the Processing and Marketing Grant Scheme (PMG). However, the MDG scheme did not proceed. Although, one Supply Chain Group did benefit from funding in the PMG scheme the anticipated synergies were not realised.
26. Measure 1.4 contributed to the Axis 2 EU Strategic Objective to improve the Environment and the Countryside by investing in 16 active groups that were involved in the Renewable Energy sector. This provided the potential to help the UK meet its renewable energy obligations of producing 15% of its energy from renewable sources by 2020. There is no evidence the scheme at this stage has contributed to Axis 3 objectives.
27. Complementarity with other funding instruments was achieved by only supporting Groups for a maximum of two years with a clear focus on assisting farmers and growers in developing a collaborative, supply chain-focused initiative.
28. According to the PPE of SCPD September 2015, the Measure had a positive effect on beneficiaries with training and mentoring provided teaching participants new technical skills, business skills and personal skills. There were 45 groups who reported this as an effect of the scheme with 38 groups improving technical skills such as pesticide spraying, deer handling and butchery skills, while 39 groups said they improved their business skills such as events management, market analysis and budget planning. Thirty-seven of the groups reported they had improved their interpersonal skills including communication skills, negotiation skills and team working.
29. The scheme did not have a positive impact on competitiveness for all beneficiaries with 24 groups (38%) considered inactive and five of those completely failing to undertake any activity. However, this outcome was anticipated at the beginning of the scheme as it was realised that not all concepts would be viable.

30. The PPE of SCPD September 2015 highlights that none of the 21 Facilitators were located in County Fermanagh and only two located in County Londonderry. Despite this geographical gap, with eight Facilitators in the three Western Counties compared to 13 in the eastern counties, the PPE notes it had no impact on the delivery of facilitation. There was however some evidence of variation in the standards of delivery with facilitators and mentors not always matched to the needs of the groups. The PPE also noted discontent from the Managing Authority with some facilitators also acting as mentors despite there being two separate roles.
31. Based on the evidence from the PPE of SCPD September 2015, it is clear that the recruitment policy limited the scheme's ability to achieve its full potential in terms of the objectives. The recruitment process through the feeder events can only be viewed as unsuccessful, with £20k spent on organising 15 events that resulted in only three out of the 64 SCDP Groups recruited.
32. There is no evidence of any negative effects to the wider economy from displacement. The evaluators have noted that under Measure 1.2 Processing and Marketing Grant scheme, four Fermanagh farmers collaborated to form a new supply chain without the support of SCDP. This group successfully applied for grant funding under the Processing and Marketing Grant scheme to invest in capital to meet the market demand for woodchip. This not only provides an example of the SCDP untapped potential but also provides evidence that there was some potential for newly formed supply chains to apply for funding under the PMG scheme when there was an established market.
33. In conclusion Measure 1.4 Supply Chain Development Programme has largely had a positive effect on its beneficiaries. Improvements in the recruitment process going forward would lead to greater participation and more competitive improvements in the Northern Ireland agri-food sector as a result.

Measure 2.1 – Less Favoured Areas Compensatory Allowances Scheme.

Background

1. The Less Favoured Areas Compensatory Allowances Scheme (LFACAS) was included in the NIRDP 2007-2013 with the aim to improve the environment and the countryside by supporting land management. Support was provided through compensation payments to those who farmed in naturally Less Favoured Areas (LFA) in Northern Ireland. The scheme was a continuation of the scheme co-financed under Council Regulation (EC) No 1257/1999 through the Rural Development Regulation Plan (Accompanying Measures) for Northern Ireland 2000-2006.
2. The rationale for the scheme's inclusion in the programme centred on farmers in the LFA facing significant handicaps from factors such as remoteness, difficult topography and poor soil conditions when compared to those in lowland areas. In these conditions, sheep and/or suckler cow production are among the few farming enterprises that can be sustained. Therefore, these farmers tended to have fewer farming alternatives, lower farm productivity and, often, higher unit production costs than farmers in lowland areas. Without financial support, it was believed that LFA farmers would experience lower returns from farming, leading to economic hardship and a significant threat to the future viability of these farming communities.
3. There was also a substantial body of evidence to support the view that cattle-based or mixed grazing systems in the LFA should be maintained in order to achieve maximum levels of biodiversity. Controlling the grazing by cattle helps maintain biodiversity and the ecological stability of upland pastures. Given the particular socio-economic and environmental contribution that cattle-based and mixed farming made in NI's disadvantaged rural areas, there were also concerns that, without this intervention, cattle production would fall significantly as a result of the decoupling of subsidy payments.

How and to what extent has the Measure contributed to improving the environmental situation?

4. LFACAS aimed to contribute to improving the environment by ensuring continued agricultural land use to maintain the countryside and to promote sustainable farming systems taking into account environmental protection requirements. In addition the continued agricultural land use would also contribute to the maintenance of viable rural communities.

5. The LFACAS aimed to improve the environment by providing support for farmers to compensate them for additional costs and income foregone for maintaining agricultural production in the LFA. The Scheme operated on an annual basis and, to qualify for compensation, farmers had to:
 - undertake to adhere to environmental protection requirements consistent with their statutory obligations;
 - undertake to farm in the LFA for five years from the first payment of a compensatory allowance;
 - adhere to the requirements of Council Regulation (EC) No 1782/2003 on cross-compliance;
 - farm three hectares or more of LFA land; and
 - maintain suckler-cow beef herds or sheep breeding flocks on their eligible land at a stocking density of at least 0.2 Livestock Units per hectare.

6. Financial support was differentiated to reflect the differing levels of severity of permanent handicap experienced within the LFA. LFA land was sub-divided into three land classification categories as follows:
 - Common land.
 - Other Severely Disadvantaged Area (SDA) land.
 - Disadvantaged Areas land (DA).

7. Levels of payment were based on eligible forage area declared in the Department's Integrated Administration and Control System (IACS). Payment rates were set on an annual basis and remained between the minimum and maximum levels permitted by Article 37(3) of Council Regulation (EC) No 1698/2005. The minimum grant rates for each type of land in the NIRDP are shown in Table 1.

Table 1 - Minimum rates of grant by type of land

Land classification	Minimum grant rates
Common land	£20 per hectare or the equivalent of €25 per hectare, whichever is the greater
Severely Disadvantaged Area (SDA)	£40 per hectare
Disadvantaged Area (DA)	£20 per hectare or the equivalent of €25 per hectare, whichever is the greater

8. Support was enhanced by 25% for producers who had 25% or more of their eligible livestock units as suckler cows or heifers. This was determined annually from the data used to confirm that the ongoing minimum stocking density requirement was met. Whilst this additional financing was tied into livestock headage, the environmental benefits to be gained from such support were believed to outweigh

the arguments for complete decoupling. This enhanced element of support was provided from national funding streams and was designed to recognise the particular socio-economic and environmental difficulties faced by Northern Ireland's disadvantaged rural areas in the face of decoupling of farm payments under CAP reform.

9. In terms of socio-economic difficulties, it was estimated that beef cow numbers in NI would fall by about 30% from 2004 to 2011 with around 20% being attributable to the impact of decoupling. In contrast, sheep numbers were only expected to fall by eight per cent over the same period, with an estimated ten per cent reduction due to decoupling being partially offset by an estimated two per cent recovery after a previous sharp fall in sheep numbers. Such a major shift was a matter of concern in terms of the implications for businesses and communities in the LFA and for habitats.
10. There was also evidence of an imbalance in support for beef and sheep in the DTZ-PIEDA mid-term review²⁶ of the scheme, conducted for the European Commission. This report indicated that the LFA support compensated suckler producers to a lesser extent than sheep producers for the natural disadvantages they faced. The percentage by which the premium compensated them was estimated at seven per cent in Disadvantaged Area (DA) suckler enterprises and nine per cent in Severely Disadvantaged Area (SDA) suckler enterprises, compared with 53% in DA sheep enterprises and 14% in SDA sheep enterprises.
11. In terms of environmental considerations, there was a substantial body of scientific evidence to support the view that cattle-based or mixed grazing systems in the LFA should be maintained to achieve maximum levels of biodiversity. A considerable amount of research had been devoted to studies of the impact of grazing animals on upland vegetation (e.g. Bull et al 1982²⁷, Murray 1985²⁸, Frame, J., 1980²⁹, 1985³⁰). While most of this work was carried out in Scotland and Wales, studies specific to Northern Ireland (e.g. McAdam 1983³¹, 1987³², 1995³³) have led to the same conclusions. In all studies it has been clearly shown that a level of controlled grazing by cattle helps maintain biodiversity and ecological stability of upland pastures. In the absence of cattle it has been found that:

²⁶ DTZ PIEDA Consulting - Scottish Rural Development Programme (SRDP) Mid Term Evaluation Final Report December 2003

²⁷ Bull, D.F., Dale, J., Sheail, J., and Heal, O.W., (1982) Vegetation change in upland landscapes. Bangor ITE, NERC.

²⁸ Murray, R. (1985). Vegetation management in Northern Britain. *BCPC Conference*, Monograph No. 30.

²⁹ Frame, J. (Ed) (1980). The effective use of forage and animal resources in the hills and uplands. *British Grassland Society Occasional Symposium* Number 12.

³⁰ Frame, J. (Ed) (1985) Grazing. *British Grassland Society Occasional Symposium*, Number 19.

³¹ McAdam, J.H. (1983) *Characteristics of grassland on hill farms in Northern Ireland*. QUB and DANI.

³² McAdam, J.H. (1987) The impact of sheep and cattle grazing on upland pasture. In: Montgomery et al. (Eds) *Land use and land use change in Irish uplands* p 14-23. Institute of Biology and Irish Geographical Society.

³³ McAdam, J.H. (1995) *Sheep grazing density and vegetation change in upland grassland*. In *Irish Grasslands – their biology and management*. Pgs 59-66. Dublin, Royal Irish Academy.

- A dense mat of sward forms which prevents growth of more sensitive plant species through competition for light and nutrients.
 - Scrub (e.g. whins, bramble) ingression can prevent access and regeneration and allows the invasion of aggressive species such as bracken.
 - A rank mat of ungrazed herbage causes build up of soil acidity (thus reducing the range of plants which can grow) and restricts the range and species numbers of ground-dwelling invertebrates and nesting birds.
12. In Northern Ireland, McAdam (1983)³¹ found that land on hill farms had typically only 20% of the potential of lowland pastures to support stock and that more diverse hill pastures were associated with grazing which included cattle. Cattle grazing in particular can prevent the build-up of aggressive and invasive species such as bracken. There was clear evidence for this from agri-environment monitoring in the Slieve Gullion Environmentally Sensitive Area (ESA) where bracken had increased considerably as suckler cow numbers decreased. Moderate trampling by cattle also creates gaps and bare soil patches in vegetation, which allows seeds of a diverse range of plants to germinate. While there was the potential for cattle to damage sensitive habitats such as wet heath, blanket bog and species-rich wet grasslands, this can be monitored and controlled through the annual inspection regime as part of the assessment for compliance with the requirements of cross compliance.
13. The arguments for the environmental benefits of cattle production were believed to be applicable to the majority of habitats in the Northern Ireland LFA, regardless of whether or not sheep were also present. From the environmental perspective, it was considered that there were strong arguments for supporting exclusively cattle-based regimes as well as mixed enterprises in most locations, particularly as the stocking density of cattle enterprises in the LFA in NI are little different to that of sheep enterprises. The adoption of a minimum requirement for cattle at 25% of livestock units was therefore intended to ensure that the enhancement was focused on those enterprises where cattle make a significant contribution to the business; otherwise the opportunity may be created for producers to adopt a token presence of cattle to secure enhanced support.

Outcome and Evaluation

14. Table 2 provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the final position reported to the European Commission up until the end of 2015.

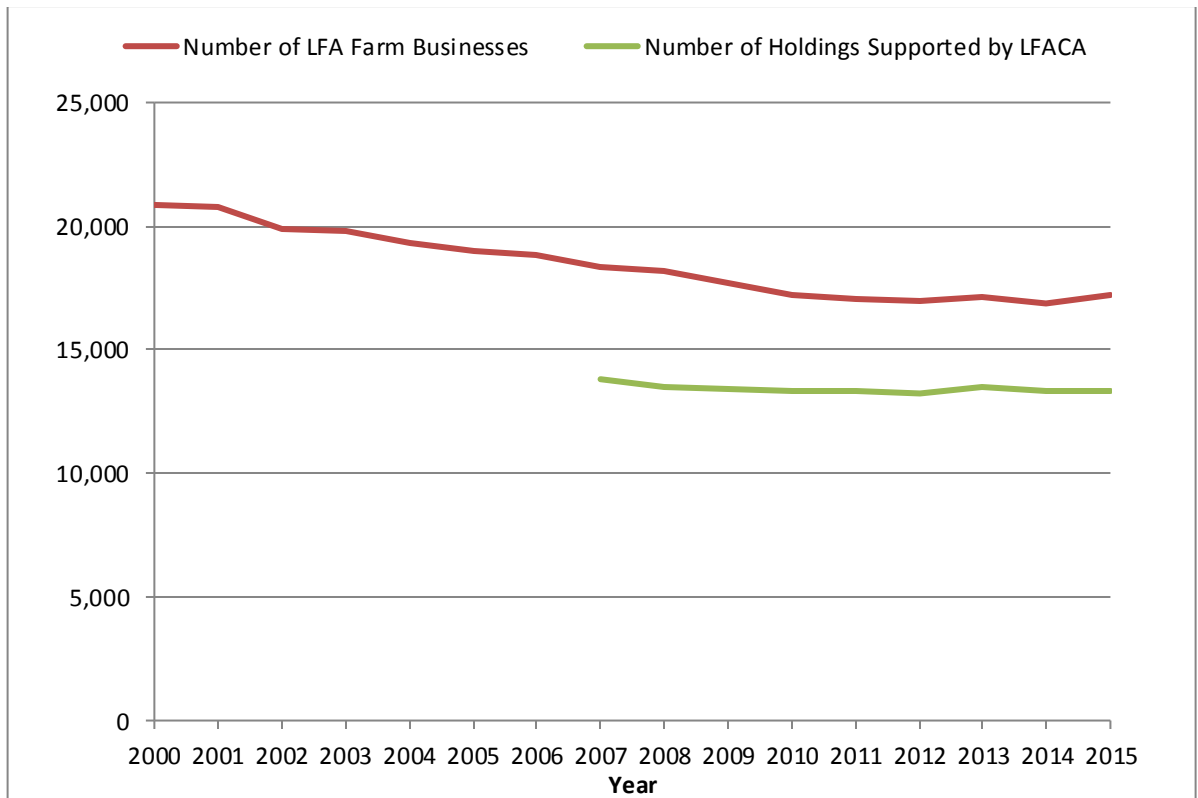
Table 2 - Quantified targets for EU Indicators

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of supported holdings in areas with handicaps	13,411*	13,800 per Annum
	Agricultural land supported	520,237*	510,000 ha per annum
Results	Area under successful agricultural land management	520,237*	459,000 ha per annum (avoidance of marginalisation and land abandonment)
Impacts	Reversing biodiversity decline		+2%
	Maintenance of high nature value farming and forestry areas		+2%

* Average annual figure between 2007-2015

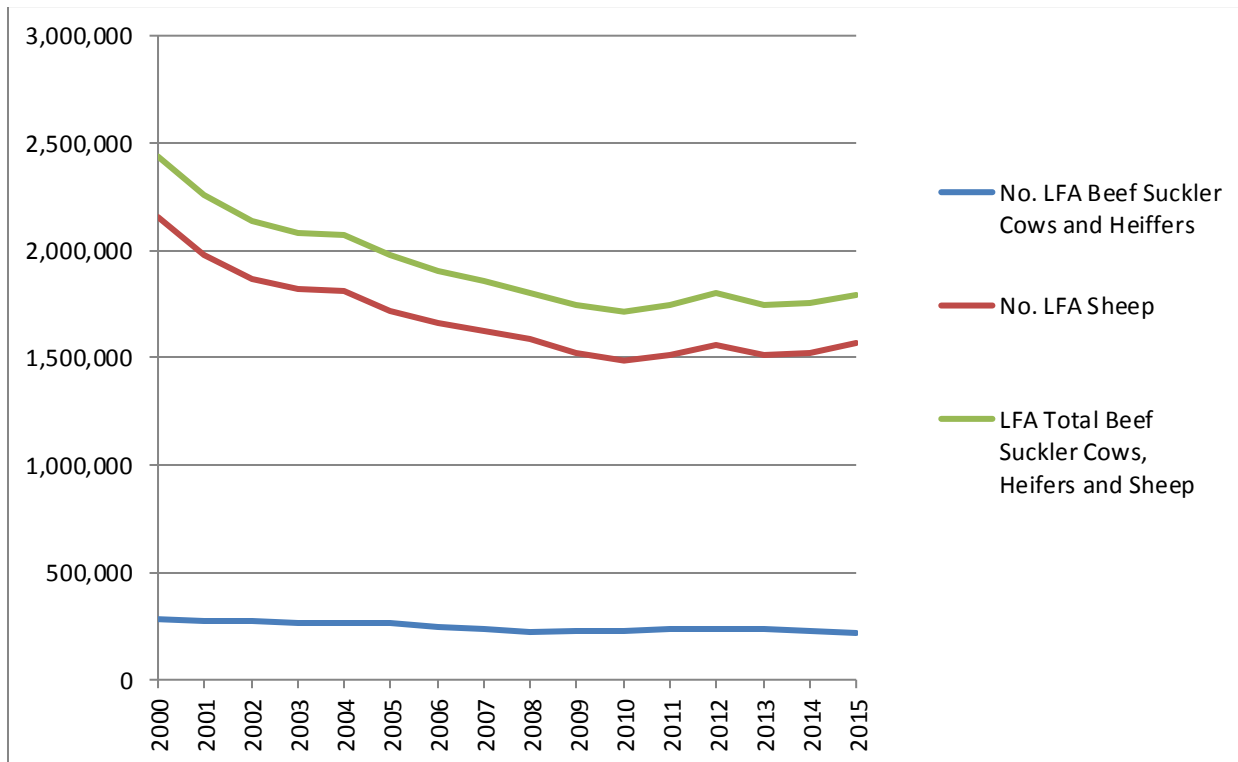
15. In total by the end of the scheme there was £155m (€185m) spent on supporting those with farm holdings in LFA areas. The Measure contributed to improving the environmental situation by ensuring that an average of 520,237 ha of Northern Ireland's LFA land was under successful agricultural land management annually between 2007 and 2015. This exceeded the target of 459,000 ha.
16. The main focus from the intervention by policy makers was to keep land in use for grazing stock particularly cattle and sheep farming (that otherwise may have been abandoned) due to the environmental benefits delivered to both the natural landscape and the biodiversity of the land. Therefore, in order to measure the extent of the contribution of the Measure to improving the environmental situation in the LFA, the evaluators first assessed the schemes success on retaining the number of farms, beef cattle and sheep on the land.
17. Figure 1 illustrates that in the seven years between June 2000 and June 2007 the total number of farm businesses in the LFA fell sharply by 11.9%. Since 2007, when the LFACAS was introduced, the total number of farms continued to fall but at more gradual rate with a total decline of 6.3% between June 2007 and June 2015. There were also fluctuations to this trend, with the number of LFA farms increasing in 2013 and 2015.

Figure 1 – Number of farms in LFA and number claiming by year



18. Figure 2 illustrates a combined decline of beef cows and sheep in LFA areas of 23.7% between June 2000 and June 2007 compared to a fall of 3.8% following the introduction of the LFACAS between June 2007 and June 2015. In the period 2000-2007 the number of sheep decreased by 24.6% and the number of beef cows showed a lower decrease of 16.8%.
19. From 2007-2015 the numbers of sheep and beef cows fell at a much lower rate of 3.5% and 5.2%, respectively, but this decline was not continuous over the period. The number of beef cows increased by 8.2% between June 2008 and June 2012 before falling back into decline. The numbers of sheep have increased by 5.4% between 2010 and 2015 with increases in numbers occurring in four out of the last five years.
20. In terms of the estimates that beef cow numbers in NI would fall by around 30% and sheep numbers would fall by around eight per cent from 2004 to 2011, the actual outcome was that beef cows fell by 11.8% and sheep fell by 16.4% over the same period.

Figure 2 – Numbers of cows and sheep in less favoured areas.



21. The impact of the scheme in reversing biodiversity decline and maintaining High Nature Value farming (HNV) and forestry areas is difficult to determine as no specific research was undertaken to measure the impact of the scheme. However, the Review of Support Arrangements for LFA Areas in Northern Ireland in March 2009 concluded that withdrawal of the scheme would result in significant reduction in LFA farming activity and output, with the potential for land abandonment and land use diversification. A reduction in farming activity would lead to the encroachment of unwanted aggressive vegetation from under grazing and could result in a negative environmental impact. However positive environmental benefits from the reduction of farming activity could also arise from the reduction in the use of fertilisers which would lead to improved water quality. Reduced grazing pressure could also benefit soils, air and biodiversity in more intensively farmed areas.

22. There was also the potential for environmentally negative impacts from land being moved into more extensive production methods to compensate for the loss of payments. However, the review also highlighted the possibility of some positive impacts for the environment from stopping the scheme as the available funding could shift from agriculture to other land uses. In particular, it was thought that forestry and woodland creation in LFA areas would increase leading to a positive environmental impact. However the review also highlighted that planting on HNV sites would be ineligible for forestry support. Given the prevalence of valuable habitats within SDA land in particular, this could significantly restrict the expansion of forestry in these areas.

Conclusion

23. Over the course of the programme, LFACAS supported on average 74% of Northern Ireland's Less Favoured Area and 54% of its grass and grazing land to adhere to environmental protection requirements. The evidence suggests that the Scheme made a contribution to the environmental situation by slowing the decline of beef and sheep farming in LFA areas and retaining the use of the land for agricultural purposes. In particular, by maintaining cattle on LFA land, the scheme helped to prevent the loss of sensitive upland plant species, the spread of aggressive species and the build-up of soil acidity which reduces the range and number of plant and wildlife species. There was also the risk that, in the absence of the compensation payments, farming could become more intensive to make up for the financial loss. The review of the scheme in 2009 concluded that if the scheme was withdrawn the net environmental impact would be negative.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

24. The Measure mainly contributed to the EU level priority area for Axis 2 which was to support biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes. By contributing to this priority the scheme was able to meet the EU Strategic Objective of ensuring consistency in the programme. Maintaining LFA land for agricultural use provided the opportunity for more sensitive environmental land management under Measure 2.2 (Agri-Environment) which may have been lost to agriculture production.
25. In addition to the Axis 2 priorities, the scheme contributed to the Axis 1 strategic objective of improving the competitiveness of the agriculture and forestry sector. Farmers, who may have abandoned their land, were able to avail of the support offered under Axis 1 Measures. In particular Measure 1.3 gave a higher weight of scoring for farmers in the LFA wishing to purchase modernisation items. The scheme also contributed to the Axis 3 priority to ensure that rural areas remain attractive to future generations by ensuring the continued management of uplands.
26. The main benefits from the Measure were the increase in farm incomes and enabling beneficiaries to maintain their land for agriculture use. This not only improved the socio-economic conditions for beneficiaries and their families but had a wider effect for non-beneficiaries with the multiplier effect from the income contributing to maintaining a viable rural society. Figures show that the LFA Compensation Allowance contributed £155m to the rural economy between 2007 and 2015. Therefore, there were no issues surrounding displacement as every pound of investment was additional to the economy.

27. The scheme also had a positive effect for beneficiaries and non-beneficiaries by maintaining the countryside and keeping it attractive to both the rural community who live there and the leisure/tourist industry that make use of its resources. Statistics from the Northern Ireland Personal Wellbeing Survey 2014/2015 shows that on a scale (where one is lowest and ten is the highest), the proportion of people who rate their life satisfaction between seven and ten in rural areas is 87% compared to 82% in urban areas. People are also happier in rural areas with 82% rating their happiness as between seven and ten on the satisfaction scale compared to 77% in urban areas. Northern Ireland tourism statistics also show that there has been a 13.5% growth in the number of overnight tourist visits to rural areas between 2011 and 2014 with a 20.2% growth in expenditure. This provides anecdotal evidence that by maintaining the countryside the scheme has made a contribution to improving the wider rural economy through supporting the potential to attract tourists to rural areas.
28. A comparison of the incomes of the Cattle and Sheep Sector in the SDA (45%), DA (29%) and Lowland (26%) shows that incomes per hectare (once LFACAS payments were removed) were highest in the DA, followed by Lowland, with the lowest incomes per hectare experienced in the SDA. As illustrated by the following tables.

Table 3 - SDA Cattle and Sheep Farms

Year	UAA (incl. mountain)	Farm Business Income (£)	LFACA (£)	Farm Business Income less LFACA (£)	Farm Business Income less LFACA (£/ha UAA)
2008/09	117.1	18,702	4,891	13,811	118
2009/10	120.7	21,140	5,345	15,795	131
2010/11	126.6	20,381	6,298	14,083	111
2011/12	122.9	22,757	5,796	16,961	138
2012/13	116.2	13,598	5,400	8,198	71
2013/14	124.7	13,383	5,755	7,628	61
2014/15	128.4	17,004	5,727	11,276	88
				Average	103

Table 4 - DA Cattle and Sheep Farms

Year	UAA (incl. mountain)	Farm Business Income (£)	LFACA (£)	Farm Business Income less LFACA (£)	Farm Business Income less LFACA (£/ha UAA)
2008/09	62.4	22,789	1,410	21,379	343
2009/10	67.8	21,300	1,709	19,591	289
2010/11	64.5	17,479	1,826	15,653	243
2011/12	63.7	23,612	1,805	21,807	342
2012/13	62.1	11,908	1,685	10,223	165
2013/14	68.5	15,700	1,666	14,034	205
2014/15	68.6	11,248	1,753	9,494	138
				Average	246

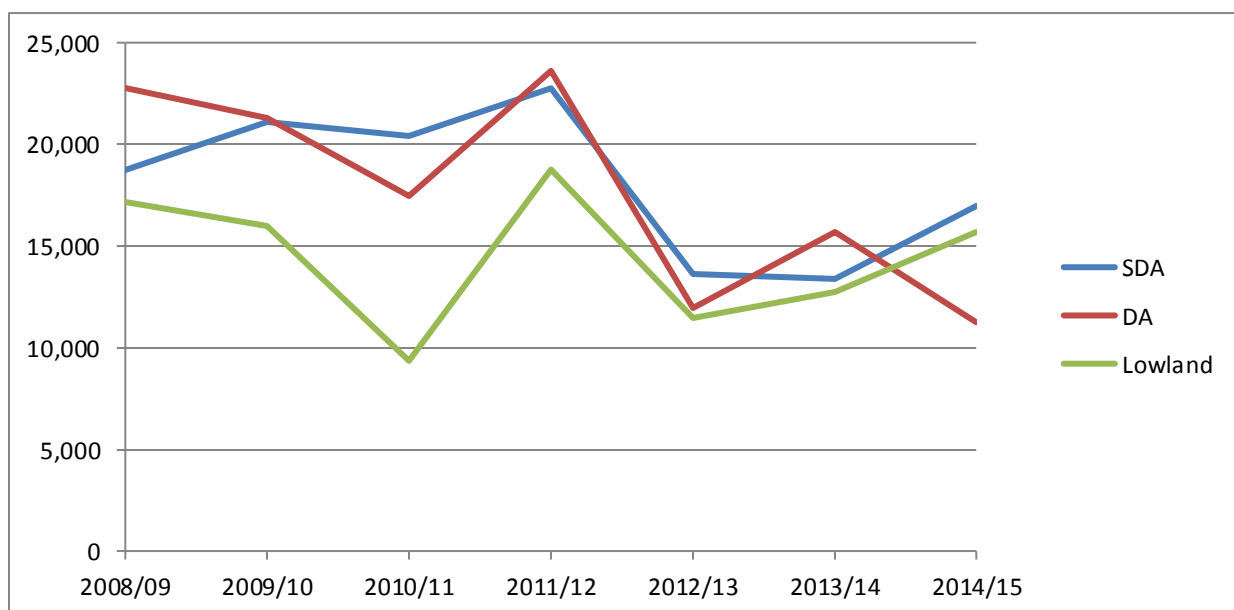
Table 5 - Lowland Cattle & Sheep Farms

Year	UAA (incl. mountain)	Farm Business Income (£)	LFACA (£)	Farm Business Income less LFACA (£)	Farm Business Income less LFACA (£/ha UAA)
2008/09	59.7	17,200	297	16,903	283
2009/10	64.9	15,986	294	15,692	242
2010/11	64.8	9,354	349	9,005	139
2011/12	60.9	18,761	249	18,512	304
2012/13	63.2	11,491	209	11,282	179
2013/14	64.2	12,720	353	12,367	193
2014/15	66.0	15,726	266	15,460	234
				Average	225

29. The tables show that when support from the LFACAS is removed from total farm incomes, cattle and sheep farmers in lowland areas had lower farming incomes than cattle and sheep farmers in disadvantaged areas for five out of the last seven

years. Their income was also lower when compared to farms in SDA areas between 2009 and 2011. In terms of average income per hectare, when the compensation payment is deducted lowland areas have a lower income per hectare than those in DA areas in five of the last seven years but have larger incomes per hectare than farms in SDA areas throughout the period. The average income per hectare on lowland cattle and sheep farms (when the LFA Compensation Allowance is deducted) between 2008 and 2015 is £225 per hectare, compared to £246 per hectare in disadvantaged areas and £103 per hectare in Severely Disadvantaged Areas.

Figure 3 - Cattle and Sheep Farm Annual Average Total Farm Business Income



30. Figure 3 above shows the trend in annual average farm business income for cattle and sheep farms in the SDA, DA and Lowland areas (including LFACA). This shows that those farm businesses mainly based in lowland areas have had consistently lower farm business income over the course of the programme. Most of the difference in total farm business income can be attributed to the level of payment from the LFACA scheme.

31. The evidence shows that on average, over the course of the programme, cattle and sheep farms in the SDA had an average farm business income which was 25% higher than lowland cattle and sheep farms once LFACA was included. The evidence also shows that in 2010/2011 SDA cattle and sheep farms made more than double the total farm business income as those in the lowland. When Lowland Area total farm business income for cattle and sheep farmers is compared to the DA it follows a similar pattern to the SDA. The exception to this was 2014/2015, when they made 28 per cent more farm business income than their DA counterparts.

32. However, overall, total average farm business incomes for cattle and sheep farms (which account for 78% of all Northern Ireland farms) were much lower than the total average farm business income for general lowland farms over the course of the programme. The average total farm business income between 2007 and 2015 in general lowland farming stood at £31,435 compared to an average in SDA Cattle and Sheep Farming of £17,638, DA Cattle and Sheep farming of £17,006 and Lowland Cattle and Sheep farming of £14,483.
33. Although the main priority for Measures under Axis 2 was to improve the environment and the countryside, the evidence presented indicates that had the intervention not taken place there would have been alternative positive outcomes for the environment, which make the overall environmental impact difficult to determine. However, LFACAS did have a higher area of land under active environmental management than any other environmental scheme including the agri- environment programme. Having considered all the other effects of the LFACAS, the evaluators have concluded that the greater impact of the scheme was to improve the socio-economic condition of its beneficiaries and the wider rural area through £155m in support payments for those farming in less favoured areas. However, the evidence suggests that cattle and sheep farmers were overcompensated in the DA compared to lowland cattle and sheep farmers.

Conclusion

34. In conclusion, implementation of this Measure did contribute to meeting the policy objectives of ensuring continued agricultural land use, contributing to the maintenance of a viable rural society, maintaining the countryside and promoting sustainable farming systems taking into account environmental protection requirements. However, it made these contributions while creating a system of income support for cattle and sheep farmers in Less Favoured Areas that left them on average financially better off than their counterpart cattle and sheep farmers in lowland areas when average total farm business incomes are compared. In particular disadvantaged area cattle and sheep farmers received on average a greater income per hectare and on average a greater farm business income per annum than lowland cattle and sheep farmers prior to the inclusion of the LFACAS payments over the course of the programme.

Measure 2.2 – Agri-environment

Background

1. Regulation 1698/2005 required that at least 25% of the total EAFRD programme contribution would be allocated to Measures in Axis 2. In 2006 one third of Northern Ireland farmland (approximately 330,000 ha) was already under pre-existing agri-environment scheme agreements. These agreements were accredited with leading to reduced overgrazing, retention of some threatened grassland habitat species, an overall increase in farm woodland habitats and the retention and improvement of heathland and upland habitats. However, the trend towards fewer, larger and more intensive farm enterprises continued to pose a threat to priority species and habitats. Reduction in habitat and biodiversity was most marked in the intensively farmed lowland areas where businesses were based on improved grassland. Agriculture was also identified as a main source of nitrate and phosphorous pollution of lakes and river systems, while the organic farming sector remained small in comparison with the UK and other EU member states.
2. Measure 2.2 (Agri-Environment) centred on the three EU Axis 2 Priority areas:
 - Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes.
 - Water quality.
 - Climate change.

Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes

3. At the beginning of the programme, 116,968 ha of Northern Ireland's land area was designated as part of the Natura 2000 network. Natura 2000 sites were designated to implement EU Directives (79/409/EEC and 92/43/EEC) covering the conservation of wild birds, natural habitats, wild fauna and flora. Some 53,350 ha of this Natura 2000 land was already being managed through existing agri-environment agreements under the Rural Development Regulation Plan for Northern Ireland 2000-2006. However, there were also other designated sites that were subject to management agreement under the nationally-funded Management of Sensitive Sites (MOSS) scheme. This scheme was delivered by the Department of the Environment (DOE) but resource limitations placed constraints on the ability of MOSS agreements to cover all sites.
4. The policy aim was to encourage farmers and other land managers with holdings, which formed part of the Natura 2000 network, to include sites not already covered under agri-environment agreement where the sites were in favourable condition. Sites in 'unfavourable recovering' or 'unfavourable' condition were to enter agreements within an agreed recovery plan and monitored by DOE Environment

and Heritage Service (EHS). It was expected recovering sites would require intervention by DOE EHS to achieve favourable condition and then would enter into agri-environment agreements at a later stage.

5. The percentage of farmland under organic management in Northern Ireland was viewed as very small in comparison to the rest of Great Britain, Ireland and other parts of Europe. In 2005, only 0.9% of Northern Ireland farmland was under organic management, compared to 3.6% of farmland in the United Kingdom as a whole. Support was considered necessary to secure longer-term sustainability of this under-developed production method in Northern Ireland, and to secure the environmental and biodiversity benefits associated with organic management.
6. Biodiversity in rural areas of Northern Ireland and the rural landscape were also under threat from the following long-term trends:
 - Numbers of farmland birds in Britain and Ireland were at a far lower level than they were 40 years previously however some generalist feeding farmland birds in Ireland had shown an increase in abundance since 1991. Other species such as yellowhammer, a cereal specialist, and lapwing, a farmland wader, had continued to decline.³⁴
 - The Irish hare is a subspecies of the mountain hare and is found only in Ireland. Irish Hare populations were believed to have declined by around 25% over the 25 years prior to the programming period and there were estimated to be between 60,000-87,000 individuals in Northern Ireland.³⁵
 - The Northern Ireland Countryside Survey produced data on the area of habitats in Northern Ireland since 1992. The findings of the summary report for 1998 – 2007 showed: ³⁶
 - A continued increase in broadleaved and mixed woodland.
 - A decrease in semi-natural habitats including species rich grassland.
 - An increase in built up areas, including housing and new roads.
 - Fewer hedges and a decrease in length of hedges.
 - Northern Ireland was one of least wooded areas in Europe, and at the time woodland covered only six percent of the land area. This was due to historical deforestation of land for conversion to agricultural use.

Water quality

7. In 2005, only 23.5% of Northern Ireland river length was considered to be of 'good' biological quality and agriculture was identified as Northern Ireland's major contributor to the pollution of waterways. Therefore a need was identified to deliver water quality Measures through agri-environment operations to assist in the

³⁴ (*Bird Atlas 2007-11. The Breeding and Wintering Birds of Britain and Ireland BTO 2013*).

³⁵ Northern Ireland Priority Species (<http://www.habitas.org.uk/priority/species.asp?item=42516>)

³⁶ Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007 (December 2009)

delivery of the EU Water Framework Directive (WFD) that also complemented the statutory requirements of the EU Nitrates Directive and Phosphorous Regulations.

Climate Change

8. The climate of Northern Ireland was changing with rising temperatures, decreasing summer rainfall and wetter winters³⁷. These changes were expected to accelerate over the coming century with average temperature to rise by three degree Celsius or more, summer rainfall to fall by up to 50%, while winters were expected to be up to 25% wetter³⁸ and sea levels were also expected to rise. The main impacts of climate change in Northern Ireland were expected to be;
 - threats to biodiversity and habitats such as changes in the distribution and species composition of habitats in response to warmer winters;
 - an increase in range of invasive non-native species in response to warmer temperatures;
 - a loss of coastal grazing marsh; and
 - threats to inter-tidal habitats, salt marshes and mudflats through flooding and erosion.

9. Specific threats to agriculture in Northern Ireland included field drainage issues in wetter weather, potential impacts on crop yields and potential impacts on animal health.³⁹ Therefore, action was needed to reduce agricultural emissions to mitigate the impact that agriculture was having on the climate and to adopt Measures that would mitigate the risks to the countryside posed by climate change.

How and to what extent has the Measure contributed to improving the environmental situation?

10. Measure 2.2 Agri-Environment Programme was included in the NIRDP 2007-2013 with the objective of improving the environmental situation in line with identified environmental needs. The following three objectives set to meet the identified needs:
 - To support sustainable development of rural areas and to respond to society's increasing demand for environmental services.
 - To introduce or to continue to apply agricultural production methods compatible with the protection and improvement of the environment, the landscape and its features, natural resources, the soil and genetic diversity.

³⁷ Climate Change Indicators (2004) Environment and Heritage Service

³⁸ Climate Change Scenarios for the United Kingdom: The UKCIPO2 Scientific Report April 2002 (Hulme et al., 2002)

³⁹ Preparing for a changing climate in Northern Ireland (2007), Project ref: UKCC13, SNIFFER

- To encourage and support agricultural production methods which protect and improve the quality of rivers and lakes, and contribute to the mitigation of and adaptation to the impact of climate change.

11. Two schemes were developed to achieve these objectives:

- The Northern Ireland Countryside Management Scheme (NICMS).
- The Organic Farming Scheme (OFS).

Northern Ireland Countryside Management Scheme (NICMS)

12. This scheme operated on a ‘whole farm’ basis. Participants were required to enter into voluntary seven year commitments to receive financial support for the environmentally sensitive management of all their land as well as the management or creation of habitats or features on the farm. The scheme also offered assistance towards non-productive investments (Measure 2.2B Agri Environment) and capital enhancement items for restoration of traditional and heritage features (Measure 3.6 Conservation and Upgrading of Rural Heritage).

13. The main aims of this scheme were:

- To enhance biodiversity in line with the Northern Ireland Biodiversity Strategy by maintaining species diversity through the positive management of wildlife habitats.
- To assist implementation of the Water Framework Directive and contribute to the protection and enhancement of Natura 2000 sites.
- To contribute to the reduction of the effect of climate change through carbon sequestration and reduction of gaseous emissions.

14. The Scheme was open to all farmers and agricultural land managers/owners with at least three hectares of land in agricultural use. All eligible land on the farm was included in the agreement with applications invited by the Department in three tranches. Payments covered only those commitments going beyond the relevant mandatory standards (Articles 4 and 5 and Annexes III and IV of Regulation (EC) No 1782/2003), as well as minimum requirements for fertiliser and plant protection product use and other relevant mandatory requirements established by national legislation. Therefore participants were required to maintain all land on the farm in Good Agricultural and Environmental Condition (GAEC). In particular, and where appropriate, the stocking levels on livestock enterprises had to be sufficient to prevent under-grazing. Livestock enterprises operating under any exemption from the Nitrates Directive were eligible for support provided all other eligibility conditions were met.

15. Beneficiaries were selected through a process of voluntary application on the basis of an environmental audit of the farm. The selection criteria were ranked to achieve the greatest environmental benefit and included prioritisation of designated sites

(e.g. Natura 2000, Environmentally Sensitive Areas), priority habitats and sensitive water habitats.

16. The type of support available included:

- Whole Farm Payment to:
 - agree and implement a Farm Waste Management Plan for the whole farm;
 - retain and proactively manage all field boundaries on the farm;
 - achieve an ‘additional environmental benefit’ within the agreement by attaining a minimum environmental value per hectare under agreement; and
 - follow the management requirements for all priority habitats and habitat enhancement options on the farm.

- Priority Habitat Payments to beneficiaries for land designated as scheme priority habitats under agreement and managed in accordance with specified management prescriptions designed to maintain and enhance the habitat.

- Habitat Enhancement Options Payments – additional support payments for beneficiaries who undertook to carry out one or more of the scheme habitat enhancement options.

- Special Conservation Payments – additional support payments to beneficiaries who:
 - bred females of the Irish Moiled Cattle breed (Northern Ireland’s sole remaining indigenous livestock breed); or
 - undertook to organically manage improved and semi improved land certified by a recognised body as under fully-organic management, but not in receipt of any payments relating to the conversion of that land.

- Non-productive investments for operation/capital items that the beneficiary could show supported their agri-environment agreement e.g. field boundary restoration, tree planting and items that enhanced wildlife. (Measure 2.2B)

- Capital Enhancement Items for Restoration of Traditional and Heritage Features e.g. traditional wooden gate and gate posts. (Measure 3.6)

The Organic Farming Scheme (OFS)

17. The Organic Farming Scheme provided financial support during conversion of land from conventional to organic management but not land already fully converted to organic management. The scheme required that any grassland was grazed primarily by organic livestock or animals undergoing conversion to organic status. Participants were required to adhere to environmental and animal welfare conditions which were more rigorous than those applying to non-organic farmers.

18. The aims of the scheme were:
- To encourage the development of the small organic sector in Northern Ireland and deliver the environmental benefits of organic farming through the reduced use of artificial fertilisers, pesticides and herbicides.
 - Support the sustainable development of rural areas.
 - Reduce greenhouse gas (CO₂) emissions from reduced manufacturing of chemical fertilisers.
19. Participants were required to meet the following conditions to receive support from the scheme:
- Land under agreement was subject to a certificate of registration and approval for conversion from the Advisory Committee on Organic Standards (ACOS) which was the advisory body to UK Rural Affairs Ministers for the administration and enforcement in the UK of Council Regulation (EEC) 2092/91.
 - Beneficiaries had to maintain their land in compliance with Good Agricultural and Environmental Conditions (GAEC) as set out in Annex IV of 1782/2003, and adhere to environmental legislation in force, including the current 19 Statutory Management Requirements.
 - Organic produce was to be produced and marketed during the period of the scheme membership.

Outcome and Evaluation

20. The following table provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Quantified targets for EU common indicators (Measure 2.2A Agri-Environment Programme)

	Indicator	Position Reported 2014	Target 2007-2013
Output	Number of farm holdings and holdings of other land managers receiving support	11,699 holdings*	13,500 holdings
	Total area under agri-environmental support	433,263 ha*	500,000 ha
	Total number of contracts	11,713*	13,500
	Physical area under agri-environmental support	427,448 ha*	495,000 ha
	Number of actions related to genetic resources: • Type of action	Not applicable	Not applicable

	Indicator	Position Reported 2014	Target 2007-2013
	(targeted/concerted) actions		
Results	Areas under successful land management	431,647 ha* under agri environment agreements (improvement of biodiversity); 3,782 ha* under organic management (improvement of biodiversity)	495,000 ha under agri environment agreements (improvement of biodiversity); 5,000 ha under organic management (improvement of biodiversity)
	Reversing biodiversity decline (farmland bird species population)	Not Implemented	+2.5%
Impacts	Change in high nature value farming and forestry areas	Not Implemented	+2.5%
	Changes in gross nutrient balance	Not Implemented	+2.5%
	Increase in production of renewable energy	Not Applicable	Not Applicable

*Figures are an average of those provided for the Annual Progress Reports between 2007 and 2014.

Table 2 - Additional programme-specific indicators and quantified targets

	Indicator	Target 2007-2013
Results	Biodiversity: population of farmland birds	5% increase in the population size of the chosen species within the main species groups; Maintain population size of Whooper swans and migratory Greylag geese
	Biodiversity: trends in Irish hare population and density	Increased survival in farms with “delayed cutting and grazing” option compared to control farms
	Biodiversity: high nature value farmland and forestry: area and condition of HNV land under agreement	Increase in area of HNV farmland under agreement by 5% Increase by 5% of area of HNV farmland under agreement in ‘good’ and ‘fair’ condition
	Biodiversity: population & diversity of appropriate invertebrate species	Increase by 5% invertebrate species diversity in habitat compared to control farms
	Biodiversity: population &	10% increase in the specific habitat

	diversity of appropriate plant species	area under agreement; Maintain plant species diversity for all habitats, except for degraded heath
	Biodiversity: tree species composition: area under agri-environment woodland and scrub options	Increase of 1,000 ha broadleaf woodland under agreement; Additional 150 ha native tree planting Additional 10 ha “riparian zone – native tree” planting
	The area (ha) and condition of NI BAP Priority Habitat under agri-environment management	Increase by 20% the area of BAP habitats under agreement
	The area (ha) under organic management	2,000 ha in Organic Farming Scheme under agreement; 500 ha in Organic Management option
	Length and condition of hedgerow under agri-environment management	5% increase in hedges due to new planting; 10% increase in actively managed hedges; 20% increase in hedgerow trees planted

Table 3 Quantified targets for EU common indicators (Measure 2.2B Agri-Environment Programme – non-productive investments)

	Indicator	Position Reported 2014	Target 2007-2013
Output	Number of farm holdings and holdings of other land managers receiving support: <ul style="list-style-type: none"> • Beneficiaries • Age of commitment 	Beneficiaries At 31/12/ 2014 : total beneficiaries who received support: 758 Age of commitment 429 received support in NIC 1 (2009) 288 received support in NIC 2 (2012) 29 received support in NIC3 (2013) 12 received support in NIC1 EM 2 (2014)	1,100 enhancement Measures funded.
	Amount of public expenditure realised	Not Applicable	Not Applicable
	Total volume of investment	Not Applicable	Not Applicable
	Total area under agri-	Not Applicable	Not Applicable

	Indicator	Position Reported 2014	Target 2007-2013
	environmental support: <ul style="list-style-type: none"> • Beneficiaries • Age of commitment Type of commitment 		
Results	Areas under successful agricultural land management contributing to: <ul style="list-style-type: none"> • Improvement of biodiversity • Improvement of water quality • Mitigating climate change • Improvement of soil quality • Avoidance of marginalisation and land abandonment 	Not Applicable	Not Applicable
Impacts	Reversing biodiversity decline (farmland bird species population)	Not Applicable	Not Applicable
	Change in high nature value farming and forestry areas	Not Applicable	Not Applicable
	Changes in gross nutrient balance	Not Applicable	Not Applicable
	Increase in production of renewable energy	Not Applicable	Not Applicable

21. In total, there was £158.2m (€192.7m) paid out in support to beneficiaries across both agri-environment schemes between 2007 and 2014 including payments for legacy schemes from the 2000 – 2006 NIRD. This total amount paid included support for non-productive investments under Measure 2.2B and support for capital enhancement items for restoration of traditional and heritage features under Measure 3.6. The numbers and areas of land under agri-environment management reduced towards the end of the programme due to support for pre-existing agreements signed for ten years under the 2000-2006 programming coming to an end. The annual figures with regards to the Quantified targets for EU common indicators are provided in Table 4.

Table 4 – Number of contracts and area under agreement by year.

Year	No. holdings receiving support	Total area under agri-environment Support	Total number of contracts	Physical area under agri-environmental support	Area under agri environment agreements (improvement of biodiversity)	Area under organic management (improvement of biodiversity)
2007	12,789	449,602	12,789	NA	448,000	6,000
2008	12,100	443,000	12,210	NA	443,000	5,900
2009	12,600	468,000	12,600	461,000	461,000	7,000
2011	12,100	443,300	12,100	443,300	440,800	2,500
2012	12,160	454,986	12,160	455,120	455,113	2,007
2013	10,043	387,332	10,043	385,436	385,436	1,896
2014	9,403	363,882	9,403	363,830	363,830	52
Average	11,699	433,263	11,713	427,448	431,647	3,782
Target	13,500	500,000	13,500	495,000	495,000	5,000

22. When taken as an annual average across the programme period, none of the EU quantified targets were achieved but the Measure performed well against the set targets in most years. The only target to be achieved on an annual basis was the area under organic management which was exceeded from 2007 to 2009 before tapering off towards the end of the programme as Organic Farming Scheme agreements came to an end.
23. In terms of the non-productive investments, there were 758 investments made (including 70 Capital Enhancement Items) that achieved 69% of the output target under Measure 2.2B. In terms of the EU set Quantified Impact Indicator targets information is not available giving a precise measurement of the impact on reversing biodiversity decline, changing to high nature value farming and forestry areas, and changing the gross nutrient balance. However, performance against additional programme specific indicator targets and evidence from the agri-environment survey, carried out as part of this evaluation, provide some information on the contribution that the Agri-Environment Scheme has made to improve the environmental situation.

24. Monitoring of the additional programme specific indicators was carried out by Agri-Food and Biosciences Institute (AFBI) who produced a report in June 2013⁴⁰ measuring the performance of the Agri-Environment Scheme against the additional programme specific target indicators. These indicator targets were set on the basis of tackling the issues in the Northern Ireland rural environment identified in the rationale for the agri-environment programme. An additional agri-environment survey was carried out by NISRA Central Survey Unit on beneficiaries in June 2016 and measured the main environmental benefits of the scheme as viewed by the 228 respondents.⁴¹ Both sources of information in conjunction with the quantified EU indicators and relevant Northern Ireland indicators have been used by the evaluators to establish the contribution of the scheme to improving the environmental situation in the context of the programme's three EU Priority areas for Axis 2.

Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes.

25. The evidence from the rationale, scheme implementation and monitoring suggests this was the main strategic environmental priority area to be tackled by the Northern Ireland Agri-Environment Scheme. Evidence from the Agri-Environment survey carried out by the evaluators indicates that beneficiaries believe the scheme has helped them to support biodiversity on their land. Out of the 228 responses to the survey there were 77.6% that thought the scheme had contributed to improving the protection of habitats such as woodland, hay meadows and heather; while 81.1% said the scheme contributed to an increase in and protection of wildlife and 65.8% indicated the scheme helped to encourage tree planting and protection of moorland.
26. With regards to preserving and developing high nature value farming and forestry systems, 82% believed the scheme helped to encourage their farming to become more environmentally friendly, 64% said they changed their farming practices as a result of scheme participation, 57% thought the scheme helped them contribute to improving protection of watercourses from pollution and 42.5% felt it improved the soil quality on their land. In terms of preserving the traditional landscape, all the above survey findings relate to preserving the traditional landscape but in addition 1.8% recorded other improvements to the traditional landscape which reflect the schemes support for restoration of traditional heritage features. These survey findings are supported by some of the performance results for the additional programme specific indicators.

⁴⁰ Monitoring of Agri-Environment Additional Indicators within the NIRDP 2007-2013 Agri-food Biosciences Institute

⁴¹ 303 beneficiaries were contacted with regards to participating in the survey with 228 (75.2%) responding. This represents 2% of the average annual number of holdings receiving support figure.

27. The AFBI monitoring report found that the species of farmland birds targeted for management by NICMS actions have experienced mixed results in terms of meeting their targets⁴². Yellowhammer and tree sparrow both experienced population increases on NICMS managed land between 2006 and 2011 that was greater than their five per cent target. However, the breeding Lapwing population continued to decline in Northern Ireland over the same period but was more abundant on NICMS land than non-NICMS land in some years. In terms of maintaining the population size of Whooper swans and migratory Greylag geese, the overwintering Whooper swan population increased by 6.6% between 2005 and 2010 and the population size for Greylag geese remained stable between 2007 and 2011.
28. A study on the threatened species of Irish Hare was undertaken in 2011 to measure performance against the programme specific target of increased hare survival on farms using the “delayed cutting and grazing” option compared to that of control farms. The report found that “Performance against the indicator could not be assessed due to very low numbers of hares being found on land using the NICMS option of delayed cutting and grazing”. Performance against the indicator to increase by five per cent the invertebrate species diversity in ungrazed margins under agreement compared to controlled grazing areas could also not be assessed due to the absence of baseline information. Though a survey of invertebrates on ungrazed grass margins and control areas undertaken in 2011 did find that there was abundance and diversity of key invertebrate groups analysed it also found that there was no significant difference in mean invertebrate abundance and ground beetle diversity between ungrazed margins and control areas. Though, slugs, true bugs and total beetles were overall more abundant in the ungrazed margins.
29. The AFBI monitoring report found that the programme specific target set for the area of HNV farmland under agri-environment agreement had been partially achieved as the area of semi-natural habitat (i.e. type 1 HNV farmland) had increased by 4.1% between 2007 and 2012. The target was also partially achieved to increase the area of HNV farmland under agreement in good and fair condition as NICMS habitat monitoring between 2002 and 2012 noted that there was an increase in ‘purple moor-grass and rush pasture’ in favourable condition and a trend for improved condition for most habitats on land under agreement.
30. With regards to the target set to increase the specific plant habitat area under agreement by ten per cent, AFBI found that the area of species-rich grassland under agreement had increased by 10.3%. The area of semi-natural woodland overall had increased by 0.5% but there were large increases in the area of mixed ashwood (40%) and oak woodland (48%). The area of moorland and raised bog had increased by 5.7%, with a large increase in blanket bog under agreement of

⁴² Responses of priority farmland bird populations to agri-environment schemes in Northern Ireland March 2013 – Royal Society of Protection of Birds on behalf of AFBI.

37%. In addition to the increased area of specific habitats under Agri-Environment agreement, there was a target for this indicator to maintain the plant species diversity for all habitats except degraded heath. The AFBI monitoring report found that the plant species richness had been maintained on all habitats, except for wet heath and woodland. There was also a decrease in species-richness and diversity index for degraded heather moorland which was another positive environmental outcome for the programme as grassland species were being lost due to heather and other heathland species increasing in cover.

31. As Northern Ireland is one of least wooded areas in Europe, programme specific targets were set to increase the area of broadleaf woodland under agreement by 1,000 ha, plant an additional 150 ha of additional native trees and plant an additional 10 ha of native trees in the 'riparian zone'. By planting ungrazed margins with native trees the aim was to increase the area of native broadleaf woodland, provide wildlife corridors and areas of minimal disturbance for wildlife. Riparian zone planting aimed to improve water quality by acting as a buffer reducing pollution from agricultural activities.
32. The AFBI monitoring report found that there was an increase in the total area of broadleaf woodland under Agri-Environment scheme agreement of 54 ha between 2006 and 2012. With regards to the planting targets it was found that the area of 'ungrazed grass margin planted with native trees' had decreased by 22 ha and that the planted riparian area along watercourses had decreased by 2 ha. These falls were due to participants leaving the agri-environment scheme once their agreements had ended. However it was found that there had been some additional planting since 2006 under the NICMS with 46 ha planted on ungrazed margins and 14 ha planted in riparian zones.
33. There are approximately 40 priority habitats under the Biodiversity Action Plan (BAP) in Northern Ireland, which require conservation action to restore their biodiversity status. To this end a target was set to increase by 20% the area of BAP habitats under agreement. The monitoring report found that changes in the estimated area of BAP habitats under agri-environment agreement showed increases for many habitats between 2006 and 2012. The area of species-rich grassland under agreement increased by 10.3% and there was a 19% increase in the area of lowland meadow. The area of semi-natural woodland overall increased by only 0.6% with large increases in the area of mixed ashwood and oak woodland offset by decreases in wet woodland of 50%. The area of all moorland and raised bog habitats increased by 5.7%, this was due to a 37% increase in blanket bog under agreement. Some of the changes may have been partly due to changes in habitat classification in NICMS as there was very little overall change in the total area of land under agri-environment agreement or the total number of participants between 2006 and 2012.

34. As the area of land under organic management was very low in Northern Ireland at the start of the programme there were programme specific targets set to have agricultural land area under organic management. The AFBI monitoring report found that in December 2012 there was 2,007 ha of land in organic conversion under the Organic Farming Scheme and 296 ha under the organic management option within the NICMS compared to targets of 2,000 ha and 500 ha, respectively.
35. Land under OFS management peaked at 7,000 ha in 2009 and continued to fall to a low of 52 ha in 2014 as the legacy management agreements and five year OFS scheme management agreements came to an end. This compares to the total registered organic farming land in Northern Ireland standing at 12,300 ha in 2012 having peaked at 14,800 ha in 2010. By the end of the programme the total registered organic farming land stood at 9,000 ha in 2014 below the pre-programme level of 9,100 ha registered in 2006.
36. Hedgerows are a priority habitat in Northern Ireland as they are rich habitats for wildlife, including vascular plants, birds, mammals and insects. They also form part of the traditional agricultural landscape and heritage as the majority were planted between 1750 and 1850. Therefore, programme specific targets were set for area under agri-environment agreement to increase the length of hedgerow by five per cent, increase actively managed hedges by ten per cent and to increase hedgerow trees planted by 20%. However, there were no baseline figures to measure the performance of the agri-environment programme against for these figures. The AFBI monitoring report notes that a survey was undertaken between June and September 2010 that will act as a baseline for any future schemes.
37. There was no additional programme specific target set for increasing the numbers of Irish Moiled Cattle for beneficiaries in receipt of the additional support payments. However, the numbers of the breed increased in Northern Ireland by 72.4% from 1,142 in 2006 to 1,969 in 2014 when the scheme came to an end.

Water Quality

38. Based on all the evidence improvement in water quality was the secondary strategic priority area to be improved by the Agri-Environment Scheme. The NICMS and OFS schemes contributed to improving water quality through:
 - field boundary management that placed restrictions on spreading;
 - farm waste management that reduced point source pollution and eutrophication;
 - farm waterway and riparian zone management that increased hedgerows and planted trees to act as buffer zones;
 - providing suitable habitat for associated wetland wildlife which acts as buffer to filter nutrients and reduce runoff from agricultural land entering watercourses and lakes;
 - riverbed enhancements; and

- reduced use of artificial fertilisers, pesticides and herbicides that pollute the watercourses.
39. From the 228 responses to the survey in June 2016 there was 57% of the beneficiaries that said the scheme helped contribute to improving protection of watercourses from pollution on their land, while 42.1% felt it stayed the same and 0.4% thought it made the pollution worse. However, there is no hard statistical evidence to support the survey findings as no programme specific target was set that monitored the quality of the water on the land under agreement.
40. Anecdotal evidence of a contribution is provided by the fact that over the course of the programme an average of 431,647 ha per annum was under successful agri-environment land management agreements and an average of 3,782 ha per annum of agricultural land was under successful OFS management agreements that included mandatory actions to protect water quality. There is further anecdotal evidence that the programme made a contribution to improving water quality from the additional planting of 46 ha of trees on ungrazed margins and 14 ha in riparian zones.
41. In general there has been an improvement in the quality of water since the introduction of the Agri-Environment scheme in Northern Ireland but it is difficult to assess the extent of this. Table 4 shows that since the introduction of the scheme the percentage of sites with ground water nitrate concentration levels below ten milligrams has increased from 56.4% in 2006 to 86.6% in 2014⁴³. The percentage of sites reporting nitrate concentration of less than ten milligrams in rivers has also increased from 71.1% to 86% over the same period, while there are no river sites reporting concentrations of more than 25mg since 2012.
42. There is also a general trend for the groundwater results to be better in the years when there was more land under agri-environment agreement. A correlation between reduced nitrate pollution in groundwater and increased agri-environment land under agreement would be expected due to reduced fertilizer use and better spreading management promoted by the schemes.

⁴³ 2015 Northern Ireland Water Management Facts and Figures (NIEA)

Table 4 – Nitrate concentrations by year.

Year	No. holdings receiving support	Total area under agri-environment Support	Percentage of sites with Annual mean nitrate concentrations below 10 mg (in groundwater)	Percentage of sites with Annual mean nitrate concentrations below 25 mg (in groundwater)	Percentage of sites with Annual mean nitrate concentrations below 10mg (in rivers)	Percentage of sites with Annual mean nitrate concentrations below 25mg (in rivers)
2006	-	-	56.4%	80.0%	71.1%	99.0%
2007	12,789	449,602	-	-	77.2%	99.2%
2008	12,100	443,000	73.0%	88.9%	83.9%	99.6%
2009	12,600	468,000	75.9%	96.6%	89.4%	99.8%
2010	12,400	456,000	77.4%	98.1%	89.6%	99.7%
2011	12,100	443,300	76.9%	94.2%	89.3%	99.7%
2012	12,160	454,986	89.1%	98.2%	91.8%	100.0%
2013	10,043	387,332	87.5%	95.8%	90.2%	100.0%
2014	9,403	363,882	86.6%	96.2%	86.0%	100.0%

43. The EU Water Framework Directive utilises a combination of biological, chemical and hydromorphological quality elements including macro-invertebrates, pH and ammonia to assign status of river quality in one of five classes from 'high' through to 'bad'.
44. Table 5 below shows that in the first cycle of EU water body environmental standards 2009 to 2013 the percentage of High and Good standard rivers fell from 25.3% to 22.7% in Northern Ireland while Moderate standard rivers increased from 44.9% to 53.7%. However, those achieving a Poor or Bad standard fell from 29.6% per cent to 23.1%. Again, the evaluators would expect that the agri-environment scheme would make a contribution to this through better farm management.

Table 5 – EU Waterbody Standard by year

EU Waterbody Standard	Percentage River Bodies 2009	Percentage River Bodies 2010	Percentage River Bodies 2011	Percentage River Bodies 2012	Percentage River Bodies 2013
High	1.0	1.9	0.4	0.5	0.3
Good	24.3	19.8	22.8	21.7	22.4
Moderate	44.9	49.9	49.7	54.4	53.7
Poor	24.7	24.0	23.1	19.8	20.5
Bad	4.9	4.0	3.7	3.1	2.6
No data	0.2	0.3	0.3	0.3	0.3

45. In terms of the Freshwater Fish Directive compliance there were 7.6% of Salmonoid rivers that failed to meet compliance in 2006 compared to 3.1% in 2013. The number of Cyprinid river compliance failures also fell from eight per cent in 2006 to no failures in 2013. However, there were large fluctuations over the course of the programme as the length of Cyprinid rivers is low and a failure in one stretch had a big impact in percentage terms. It would be expected that the agri-environment scheme would make a contribution to this through better management of land under agreement and riverbed enhancements. There has been very little change in the quality of water in Northern Ireland’s 21 lakes over the course of the programme with nine or ten consistently of bad or poor quality and eleven or twelve of moderate or good quality.

Climate Change

46. Improving the climate situation as part of the agri-environment programme was a lesser priority of the scheme than the other two priority areas based on all the evidence from the intervention. The NICMS and OFS schemes contributed to improving climate through:
- traditional orchard planting in grassland areas to capture carbon;
 - maintaining and increasing the extent of heather moorland and raised bog to capture carbon and reduce emissions of carbon dioxide from drainage, reclamation and peat cutting;
 - maintaining, enhancing and increasing woodland areas to capture carbon and reduce flood risks from increased rainfall caused by climate change; and
 - reducing greenhouse gas emissions from reduced use of chemical fertilisers.

47. Out of the 228 respondents to the agri-environment beneficiary survey, 65.8% said the scheme helped to encourage tree planting and protected moorland therefore making a contribution to mitigating climate change. This is supported by the fact that over the course of the programme an average of 431,647 ha per annum was under successful agri-environment land management agreements that required reduced use of fertilisers and an average of 3,782 ha per annum of agricultural land was under successful OFS management agreements which prohibited the use of chemical fertilisers. There is further supporting evidence in the programme specific indicator monitoring report which highlights additional planting of 46 ha of trees on ungrazed margins and 14 ha in riparian zones as a result of the scheme. The report also highlighted that area of semi-natural woodland under agreement increased by 0.6% and that there was a 5.7% increase in moorland and raised bog under agreement.

Conclusion

48. The overall impact of the agri-environment scheme is difficult to measure without the setting of indicators and actions taken to measure the overall change in biodiversity, the change in soil nutrients, the area under HNV farming, the quantity of fertilisers used and the quality of the water on the land that is under agri-environment agreement. There is anecdotal evidence from the survey results that actions taken by beneficiaries have contributed to improving the environmental situation in all three of the EU priority areas but there is very little hard evidence to support these assertions.
49. There is anecdotal evidence of a contribution to improving biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes due to the area and type of land under agri-environment agreement. However, with the exception of a measurement of some targeted species of farmland birds the impact the agreements have had on reversing biodiversity decline and improving the landscape have not adequately been measured on the land.
50. There is evidence at a Northern Ireland level that supports the improvement of soils in areas of general managed grassland as the area of surveyed land with sufficient phosphorus content increased from 20% in 2006/2007 to 30.9% in 2014/2015⁴⁴. While the area of land with high or excessive phosphorus content has fallen from 67.5% to 59.6% over the same period. The reduction in phosphorus content directly relates to reduced use of chemical fertilisers but it will be in the long term before the impact of reduced use of chemical fertilisers can be properly assessed. There is also evidence at Northern Ireland level that the numbers of wild birds have decreased by 5.5% between 2006 and 2014, while the numbers of wetland birds have decreased by 18.1% between 2006/07 and 2013/14. However, there are factors other than agriculture that could contribute to these figures.

⁴⁴ Northern Ireland Environmental Statistics Report 2016 – Department of Agriculture, Environment and Rural Affairs

51. As agriculture has a major effect on water quality it is assumed that the actions taken under the agri-environment scheme have contributed not only to the improvement in Northern Ireland's ground water quality but also to the improved water quality of the waterways. The proportion achieving a 'poor' or 'bad' standard has fallen from 29.6% to 23.1% over the course of the programme. Most of the ground water improvement is directly attributable to the reduction in use of chemical fertilisers reducing the nitrate content of the groundwater and waterways.
52. The impact of the scheme on climate is the most difficult to measure due to many contributing factors outside of the agriculture industry and to long term climate trends. The scheme would have had some impact on improving this environmental situation by encouraging land management that increased tree planting, hedgerows and plant life that captured carbon while reducing the amount of greenhouse gas emissions from fertilisers that contribute to global warming. Greenhouse gas emissions from agriculture soils and urea has reduced in Northern Ireland by 21.5% from 1,633 (ktCO_{2e}) in 1999 to 1,282 (ktCO_{2e}) in 2014. Between 2006 and 2014 this decrease was four per cent down from 1,335 (ktCO_{2e}). This reduction can be mainly be attributed to reduced nitrous oxide emissions that are largely driven by fertiliser nitrogen use, manure applications and grazing returns to agriculture soils.
53. It is the evaluators' opinion based on all the available evidence that the rationale and actions taken under the NICMS and OFS schemes were based on robust intervention logic. However, the measurement of success against the scheme objectives is difficult to assess due to a lack of quantified relevant data specific to the land under agri-environment agreement. The anecdotal and quantified data that does exist provides some evidence of success in improving the environmental situation in terms of the three EU priority areas for Axis 2 or at least maintaining the status quo and preventing further environmental damage. Therefore, it is the evaluators' conclusion that the actions undertaken in the scheme have helped to some extent to improve the environmental situation by developing high nature value farming and forestry systems that have helped preserve the land under agreement. However, there is little or no quantified data at programme level to show the extent to which these systems helped reverse biodiversity decline, improve soil nutrient levels, maintained and improved the traditional landscape, improved water quality, increased carbon capture and reduced greenhouse gas emissions.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

54. Measure 2.2 has contributed to the EU strategic objectives under Axis 1 by financially supporting farmers to introduce new environmentally friendly farming processes while maintaining their businesses competitiveness. This is supported by 67.5% of the 228 beneficiaries in the agri-environment survey identifying support payments as one of the main benefits of the scheme as it helped farm cash flows.
55. The Measure also contributed to the Axis 3 objective of improving the quality of life in rural areas by environmentally farming the land to improve the historical landscape, encourage biodiversity, improve waterways and water quality, increase forest cover and management and improve air quality. These changes will not only help to improve the quality of life for rural residents but help meet the Axis 3 objective to attract tourists to rural areas, particularly through the non-productive Investments and support for capital enhancement items for restoration of traditional and heritage. The payments to farmers coupled together with actions to improve the quality of life in rural areas and to attract visitors should also have contributed to the Axis 3 objective to create long-term sustainable communities.
56. The Measure contributed to the EU strategic objective to ensure consistency in the programme by having direct links to Measure 2.2B (EU Measure 216) Support for non-productive investments and Measure 3.6 (EU Measure 323) Conservation and upgrading of the rural heritage. Both these Measures had their budgetary support included within the NICMS and applications were made through this scheme. There were a total of 758 non-productive investments made under the NICMS including 70 capital enhancement Items for restoration of traditional and heritage features under Measure 3.6. The scheme also provided synergy to investments in Manure Efficiency Technologies (METs) under Measure 1.3 (Farm Modernisation Programme) as rules surrounding spreading and the use of fertiliser as part of the agri-environment programme supported the uptake of these technologies in order to meet requirements.
57. The Measure complemented the EU strategic objective of complementarity between community instruments as it contributed to the EU Water Framework Directive, EU Nitrate Directive, EU Phosphorous Regulations and EU directives to protect Natura 2000 areas. Demarcation of support was ensured from other community instruments by following the rules for eligible investments laid out under EC 1698/2005 Article 39 for agri-environment payments, Article 41 non-productive investments and Article 57 (b) for restoration of traditional heritage features.
58. The Measure had a positive financial effect for beneficiaries by helping them maintain their farm cash flows and retain their farming incomes while implementing environmentally friendly farming practices on their land. There was also a wider effect for non beneficiaries through the multiplier effect. Figures show that the Agri-

Environment Scheme contributed £158.2m (€192.7m) to the rural economy between 2007 and 2015. There were no issues of displacement and the support through the non area based payments to meet specific costs was additional to the rural economy. Evidence from the survey also shows that had the intervention not taken place only 3.9% of the beneficiaries would have carried out all of the actions they completed as part of the scheme. There were 43.9% who said they would have made no changes to their farming or may have intensified their farming and 50.4% that said they would have carried out only some of the environmental work. Therefore, had the Agri-Environment programme not been included in NIRDP there would have been a negative effect for the environment due to less participation and reduced environmentally friendly farming actions being carried out.

59. Out of the 228 beneficiaries surveyed by NISRA, around two per cent of beneficiaries indicated that there were no benefits to the scheme. Overall, 91.2% of the 228 beneficiaries indicated they would join a future agri-environment scheme. Out of the 15 beneficiaries that said they wouldn't join a future scheme, three indicated it was because it was no longer necessary on their farm, two indicated it was because of their age and the length of commitment, three indicated it wasn't financially worthwhile and four thought there was too much red tape/paperwork involved. Only one beneficiary said they wouldn't participate again because of a previous bad experience, while another said their farm wasn't suitable to the scheme and one beneficiary wouldn't participate again because they intended to sell their farm.
60. There were no financial negative effects for farming non beneficiaries as the programme was open to all farmers and the financial support that was received was intended to cover the costs of scheme implementation and income foregone from farming as result of their participation. Therefore, the only effect on farming non-beneficiaries was that their land and local area didn't benefit from the environmental improvements that the agri-environment programme could offer. Budget constraints made it impossible to support all those who applied to the Agri-Environment Programme and it was therefore appropriate that support was prioritised to support land that offered the most environmental benefit.
61. In conclusion, the effects of the Agri-Environment Scheme were largely constrained to the objectives of the Measure and helping Northern Ireland meet the UK and EU regulatory requirements for the environment. There were some positive effects from the Measure that supported actions under Axis 1 and Axis 3 to improve the competitiveness of the agricultural and forestry sector and to improve the quality of life in rural areas and encourage diversification of the rural economy. There were no significant negative effects from the Measure on beneficiaries or non-beneficiaries.
62. The main difficulty with evaluation of the scheme was that the monitoring and evaluation processes put in place were insufficient to measure the performance of

the scheme. A particular issue was the lack of measurable baselines at the start of the scheme. By not having adequate quantified data to assess the impact the programme has had on meeting the objectives on land under agreement it makes it difficult to assess the actions which have been successful/unsuccessful and what support should be provided in future Rural Development Programmes.

Measure 2.3 - First Afforestation (forest expansion)
Measure 2.4 - Forest Environments

Background

1. At the end of the First World War only 1.4% of the Northern Ireland landscape was covered in forest. Restoration of forestry became a priority, initially due to a need to develop a strategic reserve of timber for use in a time of national emergency, and then by a need to promote economic development through the supply of raw material to sawmills and other industrial applications. In more recent times the growth of forests in Northern Ireland has been partly driven by the environmental need to mitigate climate change and to enhance biodiversity in compliance with UK commitments to UN and European conventions and EU directives.
2. At the beginning of the programme a total of 86,000 ha or six per cent of Northern Ireland land was under forest cover compared to 12% cover in Great Britain and 33% cover in Europe. Three quarters of this land was owned by DARD. The Forest Service are the executive agency responsible for promoting the interests of forestry within Northern Ireland, the development of afforestation, the production and supply of timber and the maintenance of adequate reserves of growing trees.
3. The Northern Ireland Forestry Strategy, “A Strategy for Sustainability and Growth” (2006), was developed by the Forest Service in consultation with stakeholders. This strategy aimed to double the area of land under forest cover by 2050 and to improve the sustainability of forests. The Forestry Strategy recommended that future afforestation should be led largely by the private sector through the conversion of land in agricultural use to forestry. Farmers, as the largest agricultural land-owning group, were in a unique position to lead this and also to promote the sustainability of forests by enhancing them as biodiversity habitats and places of public amenity.
4. In order to meet these overarching forestry strategic objectives the following Measures were included to increase the area of land under forest cover:
 - Measure 2.3A - First Afforestation of Agricultural Land.
 - Measure 2.3B - First Establishment of Agro-forestry systems on agricultural land.
 - Measure 2.3C - First Afforestation of non-agricultural land.
5. To increase the sustainable management of forests and to improve them as places of biodiversity and public amenity Measure 2.4A (Forest Environments) and Measure 2.4B (Forest Environments – non-productive investments) were also included.

How and to what extent has the Measure contributed to improving the environmental situation?

6. The afforestation Measures (2.3A, 2.3B & 2.3C) contributed to the improving the environmental situation through three grant schemes:

Woodland Grant Scheme (WGS)

7. This entailed a capital grant, which funded 70% of the costs of woodland establishment (on a standard establishment cost basis) on land of at least 0.2 hectare plots. A Community Woodland Supplement was paid as a “top-up” to the establishment grant to encourage people to create new woodlands in locations which had a demonstrable potential to be used for informal public recreation. The claimants entered into agreements to manage the woodlands established for a minimum of 20 years for predominantly coniferous/fast growing woodlands, and 30 years for predominantly broadleaf woodlands.

Farm Woodland Premium Scheme (FWPS)

8. This was an on-going revenue scheme which funded 100% of the annual income forgone (on a standard cost basis) for agricultural producers who had converted agricultural land to woodland via the Woodland Grant Scheme for an ongoing period. Annual payments were received by beneficiaries for ten years for predominantly coniferous woodlands and 15 years if they planted predominantly broadleaf woodlands.

Forestry Challenge Scheme (FCS)

9. This scheme was introduced in 2013, in response to stakeholder feedback, identifying that the WGS and FWPS were suitable for small additional planted land parcels but a mechanism was needed to stimulate interest in larger scale plantings. To be eligible for this scheme projects had to plant a minimum of five hectares of land in order to receive a capital grant for 70% of the establishment costs. Beneficiaries of this scheme were also entitled to support from the FWPS.
10. The sustainable management of existing woods and forests Measures (2.4A & 2.4B) contributed to improving the environmental situation through two grant schemes:

Sustainable Forests Operations Grant (SFOG)

11. The Sustainable Forest Operations Grant was a multi-annual capital grant payable to owners of existing woodland who agreed to undertake agreed forest environment

actions to improve the ecosystems within the woodland and prevent damage by domestic and wild animals. The amount of grant payable was £50 per hectare annually for a maximum of five years and in exceptional circumstances, there was the potential to have this increased to a maximum of £120 per hectare annually.

Woodland Environment Grant (WEG)

12. The Woodland Environment Grant was a one-off capital grant payment of 50% of approved costs up to a maximum grant of £3,000 for woodland owners to undertake works to their existing woodland to enhance its environmental benefits (e.g. for biodiversity) or public amenity benefits.

Outcome and Evaluation

13. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Quantified targets for EU common indicators Measure 2.3A First Afforestation of Agricultural Land.

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of beneficiaries receiving afforestation aid	807	1000
	Number of hectares of afforested land	1,854 ha	1,600 ha
Results	Area under successful land management	1,854 ha	1,600 ha (Mitigating Climate Change)
Impacts	Reversing biodiversity decline	Not Implemented	+0.5%
	Change in high nature value farming and forestry areas	Not Implemented	+0.5%
	Change in gross nutrient balance	Not Implemented	+0.5%

Table 2 - Additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of forest holdings supported classified by ownership categories and size classes	807	1,000
Results	Biodiversity of forest ecosystems – naturalness – area of forest or other wooded land classified by forest type and level of naturalness	1,854 ha	1,600 ha

Table 3 - Quantified targets for EU common indicators (Measure 2.3B First Establishment of Agro-forestry systems on agricultural land)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of beneficiaries receiving afforestation aid: <ul style="list-style-type: none"> • Type of land ownership • Age of commitment • Environmental reason • Agricultural use of land 	NIL	5
	Number of hectares under new agroforestry systems: <ul style="list-style-type: none"> • Agricultural use of land • Type of tree 	NIL	10
Results	Areas under successful forestry land management contributing to: <ul style="list-style-type: none"> • Improvement of biodiversity • Improvement of water quality • Mitigating climate change • Improvement of soil quality • Avoidance of marginalisation and land abandonment 	NIL	10 ha (Mitigating climate change)
Impacts	Reversing biodiversity decline	Not Applicable	Not Applicable
	Change in high nature value farming and forestry areas	Not Applicable	Not Applicable
	Change in gross nutrient balance	Not Applicable	Not Applicable

Note: This Measure is expected to contribute to the impact indicator defined for Measure 2.3A 'First Afforestation of agricultural land' and it is not possible to define separate impact targets.

Table 4 - Additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of forest holdings supported classified by ownership categories and size classes	NIL	5
Results	Biodiversity of forest ecosystems – naturalness – area of forest or other wooded land classified by forest type and level of naturalness	NIL	10 ha

Table 5 - Quantified targets for EU common indicators (Measure 2.3C First Afforestation of non-agricultural land).

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of beneficiaries receiving afforestation aid: • Type of land ownership • Age of commitment • Environmental reason	6	45
	Number of hectares of afforested land: • Type of land ownership • Environmental reason • Type of tree • Age of commitment	17	90
Results	Areas under successful forestry land management contributing to: • Improvement of biodiversity • Improvement of water quality • Mitigating climate change • Improvement of soil quality • Avoidance of marginalisation and land abandonment	17	90 ha (Mitigating climate change)
Impacts	Reversing biodiversity decline	Not Applicable	Not Applicable
	Change in high nature value farming and forestry areas	Not Applicable	Not Applicable
	Change in gross nutrient balance	Not Applicable	Not Applicable

Note: This Measure is expected to contribute to the impact indicator defined for Measure 2.3A 'First Afforestation of agricultural land' and it is not possible to define separate impact targets.

Table 6 - Additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of forest holdings supported classified by ownership categories and size classes	6	45
Results	Biodiversity of forest ecosystems – naturalness – area of forest or other wooded land classified by forest type and level of naturalness	17	90 ha

Table 7 - Quantified targets for EU common indicators (Measure 2.4A: Forest Environments)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of forest holders (and holdings) receiving support <ul style="list-style-type: none"> • Age of commitment • Type of scheme • Type of investment 	6	4
	Number of hectares under forest environment support <ul style="list-style-type: none"> • Type of woodland • Environmental reason • Type of tree • Age of commitment 	46 ha	66 ha
	Number of contracts <ul style="list-style-type: none"> • Type of commitment • Age of commitment 	6	4
	Physical forest area under forest environment support	46 ha	66 ha
Results	Areas under successful forestry land management contributing to: <ul style="list-style-type: none"> • Improvement of biodiversity • Improvement of water quality • Mitigating climate change • Improvement of soil quality • Avoidance of marginalisation and land abandonment 	46 ha	66 ha (Improvement of biodiversity)
Impacts	Change in high nature value farming and forestry areas	Not Implemented	+0.5%

	Indicator	Final Position Reported	Target 2007-2013
	Changes in gross nutrient balance	Not Implemented	+0.5%
	Increase in production of renewable energy	Not Applicable	Not Applicable

Table 8 - Additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Outputs	Number of forest holdings supported classified by ownership categories and size classes	6	4
Results	Biodiversity of forest ecosystems – naturalness – area of forest or other wooded land classified by forest type and level of naturalness	46 ha	66 ha

Table 9 - Quantified targets for EU common indicators (Measure 2.4B Forest Environments – non-productive investments)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of forest holders (and holdings) receiving support <ul style="list-style-type: none"> • Age of commitment • Type of scheme • Type of investment 	11	16
	Total volume of investment: <ul style="list-style-type: none"> • Type of investment 	£35,000/ €42,135	€66,000
Results	Areas under successful forestry land management contributing to: <ul style="list-style-type: none"> • Improvement of biodiversity • Improvement of water quality • Mitigating climate change • Improvement of soil quality • Avoidance of marginalisation and land abandonment 	47 ha	264 ha (Improvement of biodiversity)
Impacts	Change in high nature value farming and forestry areas	Not Applicable	Not Applicable

	Changes in gross nutrient balance	Not Applicable	Not Applicable
	Increase in production of renewable energy	Not Applicable	Not Applicable

Note: This Measure is expected to contribute to the impact indicator defined for Measure 2.4A 'Forest Environments' and it is not possible to define separate impact targets.

Table 10 - Additional programme-specific indicators and quantified targets

	Indicator	Position Reported 2015	Target 2007-2013
Outputs	Number of forest holdings supported classified by ownership categories and size classes	11	16
Results	Biodiversity of forest ecosystems – naturalness – area of forest or other wooded land classified by forest type and level of naturalness	47 ha	264 ha

14. In total, there was £9.3m (€11.4m) of grant expenditure on 813 afforestation projects over the course of the programme. Applications were made from landowners across Northern Ireland with offers for grant support approved and paid for all counties. There was a total 1,871 ha of land afforested which included the afforestation of 1,854 ha of agricultural land. There were 399 of the afforestation projects on agricultural land that took place in the Less Favoured Areas (LFA) and accounted for 52% of the total grant expenditure. In terms of type of tree planting, there were 125 ha of coniferous trees and 1,746 ha of broadleaf trees planted.
15. The total grant expenditure on the sustainable management of existing woods and forests was €14,990 (SFOG €5,618 and WEG €9,372). There were six beneficiaries supported under the Sustainable Forests Operation Grant scheme to manage 46 ha of existing woodland and 11 beneficiaries supported through Woodland Environment Grant capital investments to enhance 47 ha of land for biodiversity and public amenity. Therefore, the two schemes had a low uptake with land under management agreement mainly owned by the National Trust (private not for profit organisation) and a few private Woodland Estate owners.
16. As there was no research carried out in relation to the EU common impact indicators set for the forestry Measures, the evaluators carried out a survey in June 2016 to assess the contribution of the Forestry Measures to improving the environmental situation. In total 195 (24% of Measure 2.3 beneficiaries) responses were received from beneficiaries who received support under the afforestation

grants and 84 responses were received from unsuccessful afforestation applicants. The information gathered from the survey will be used in conjunction with all other relevant information (including the performance indicators) to assess the success of the forestry Measures and the extent of their contribution to improving the three EU priority areas for Axis 2:

- Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes.
- Climate change.
- Water quality.

17. Performance against the EU common indicator targets shows that for Measure 2.3A (First Afforestation of Agriculture Land), 80.7% of the beneficiary target was achieved while the land area to be afforested target was exceeded. The result target for land area under successful land management mitigating climate change was also achieved. A breakdown of beneficiaries by ownership category for the additional programme specific indicators shows that 802 projects took place on privately owned land and five took place on publically owned land. The breakdown by forest type shows that 123 ha of coniferous trees were planted and 1,731 ha of broadleaf trees were planted. It should be noted however that in 2011 the targets for the forestry schemes were significantly reduced. This was as a result of very low uptake which was attributed to the exclusion of many small and part-time farmers as a result of the EU legislation definition of a farmer.
18. There was no uptake for support under Measure 2.3B (First Establishment of Agroforestry Systems on Agricultural Land) and therefore none of the EU common indicator targets or additional programme specific targets were met.
19. Uptake was low under Measure 2.3C (First Afforestation of Non-Agricultural Land) with only six projects supported achieving 13.3% of the EU common indicator target. The total land afforested under this Measure was 17 ha achieving 18.8% of the EU common indicator target and the result indicator target for land area under successful land management mitigating climate change matches this low level of achievement. For the programme specific indicators there is no breakdown supplied by ownership category or size class but the area can be estimated at two hectares coniferous planting and 15 ha broadleaf planting.
20. In response to lower than expected annual increases in planting the grant rates for Woodland Grant Scheme and Farm Woodland Premium Scheme were increased in 2009 and the Forestry Challenge Scheme was introduced in 2013 to stimulate interest in larger plantings. Although this helped the afforestation Measures to exceed their combined target, it was mainly exceeded as a result of the target being reduced from 4,000 ha to 1,690 ha in 2012 due to the low uptake of the various schemes.

21. Stakeholder feedback suggests the lack of interest in the afforestation schemes was due to the standard grant structure not being adequate to cover the costs of the creation of large blocks of forest. This is supported by the survey of unsuccessful applicants with over one third of those who withdrew their application suggesting it was for financial reasons or a more lucrative land use. Feedback received from the key informant workshop also suggested that farmers were reluctant to convert good agriculture land to forestry as it decreased the value of their farm.
22. Evidence from the survey of the unsuccessful applicants shows that the majority were unsuccessful as their application was rejected by the department (53.1%). Unsuccessful applications fell largely into two categories, those whose sites were inappropriate for afforestation when the UK Forestry Standards were applied and those whose sites scored low due to a lack of evidence of the deliverable benefits and high establishment costs.
23. Overall, the feedback suggests that the EU operating rules for funding limited the uptake of the scheme to mainly small areas of land unsuitable for agricultural use which had little financial impact on the farmer's income. In the Northern Ireland context this strategy for afforestation is unsuitable as there are much lower levels of forestry than the rest of Europe and higher levels of financial support are required to provide incentives to farmers to convert larger areas of good agricultural land to forestry.
24. Although the levels of uptake were low for Measure 2.4A (Forest Environment), the performance against EU common indicator targets was relatively good with the number of projects exceeded and 69.7% of the target for area under successful support achieved. Measure 2.4B (Forest Environment Non-Productive Investments) achieved 68.8% of the number of forest holders receiving support target, 17.8% of the area under successful management target and 63.8% of the total volume of investment target. In terms of Measure 2.4A and Measure 2.4B programme specific targets there is no breakdown information available for the indicator categories.

Biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes

25. The afforestation grants on offer as part of the NIRD 2007-2013 contributed to improving this EU priority area by planting 1,871 ha of trees (125 ha coniferous and 1,746 ha broadleaf) on the Northern Ireland landscape. This accounted for 7.2% of the increase in tree cover from a baseline of 86,000 ha at the start of the programme to 112,000 ha in 2015 (N.B. the area of forest cover increased by 18,000 ha between 2011 and 2012 mostly as result of a new private forestry

inventory approach)⁴⁵. The new woodland planting was small scale with an average of 1.4 ha per claim and 40% of the planting was native tree species. The proportion of new native woodland planted dropped significantly after 2012 as a result of the discovery of ash dieback disease in recently planted woodland which lead to more non-native broadleaved species being planted.⁴⁶

26. In addition to the increase in tree biodiversity the planting of woodland also created a habitat for other plant and animal species increasing the general biodiversity of the converted land. This is supported by the findings of the NISRA survey in June 2016 with 136 (69.7%) of the 195 beneficiaries surveyed indicating they noticed an increase in wildlife on their land since planting. The proportion of the 136 beneficiaries who noticed an increase in the wildlife identified the following increases for specific species:

Wildlife Type	Beneficiaries Noticing an Increase (%)
Insects	51.9%
Birds	92.6%
Mammals e.g. Hares, red squirrel	60.7%
Frogs	31.1%
Wild plants	51.9%
Fungi	13.3%
Other*	5.9%

*Other species noticed to have increased by beneficiaries in the survey were deer, badgers, foxes, ducks and otters.

27. In contrast to these figures the survey results for unsuccessful applicants show only 18 (22%) of the 82 applicants surveyed indicating they noticed an increase in wildlife on their land.
28. The afforestation grants contributed to the preservation and development of high nature value farming and forestry systems by converting 1,854 ha of agricultural land and 17 ha of non-agricultural land to forestry use and requiring beneficiaries to manage them in line with good forestry practice for a minimum of 20 years. This contribution was to be supported in already existing forests by the Sustainable Forests Operation Grant that committed landowners to their management for a

⁴⁵ The Forest Service introduced a new woodland register in 2011/2012 that identified more privately owned woodland than the previous measurement approach. Therefore the data from 2011/2012 onwards is not comparable to previous years.

⁴⁶ Outline Business Case for DARD's 2015/16 – 2020/21 Rural Development Programme Forestry Measures

minimum of five years. Specific actions to manage/enhance the environmental benefits of existing woodlands were supported through the Woodland Environmental Grant. Uptake of the two woodland improvement grant schemes was very low and actions were generally limited to supporting the removal of invasive exotic species such as rhododendron.

29. In total there was 1,964 ha put under successful forestry management (EU quantified result indicator) as a result of the various Forestry Schemes. This equates to 1.75% of Northern Ireland's afforested land area.

Climate

30. Afforestation support under the Forestry Measures contributed to mitigating climate change by increasing Northern Ireland's forest cover by 1,871 ha which increased carbon dioxide sequestration. It was noted at the start of the programme that carbon sequestration by Northern Ireland forests represented around 6.5%–8.2% of the total for UK forests and is greater per hectare than in Britain because the average forest age is younger in Northern Ireland. Therefore, the planting of new forests contributes more to carbon sequestration than mature forests. Current evidence shows that over a full rotation, including planting to felling, a conifer forest can sequester around 14 tonnes of carbon dioxide per hectare annually. When UK woodlands are looked at as a whole, the average is around 5.4 tonnes of carbon dioxide per hectare annually (or 1.4 tonnes of carbon per hectare annually) including broadleaved woodlands. Therefore, the additional forest cover can be estimated to have increased carbon dioxide sequestration by 10,103 tonnes per annum in Northern Ireland representing 1.5% of Northern Ireland's total from forests (based on average annual forest carbon dioxide sequestration rates).
31. Afforestation support also sought to maintain the supply of timber from forests. Business activities included the production of wood fuel as an alternative greener renewable energy resource to fossil fuels. There were 31.3% of the 195 surveyed beneficiaries that indicated a benefit of the scheme was wood/timber for their own use or processing. There is no specific breakdown for the numbers that used or processed wood as an alternative energy source. However, it would be expected that the majority of business activity would have been for the production of wood fuel as it is a financially lucrative market.

Water

32. There are some water quality benefits from the afforestation Measures with 1,871 ha of tree planting reducing diffuse pollution from agriculture. This will have made a small contribution to the Northern Ireland water quality improvements highlighted under Measure 2.2 Agri-Environment Programme. Planting also helped eliminate the risk of flooding for some beneficiaries and contributed to drying out wetland for others.

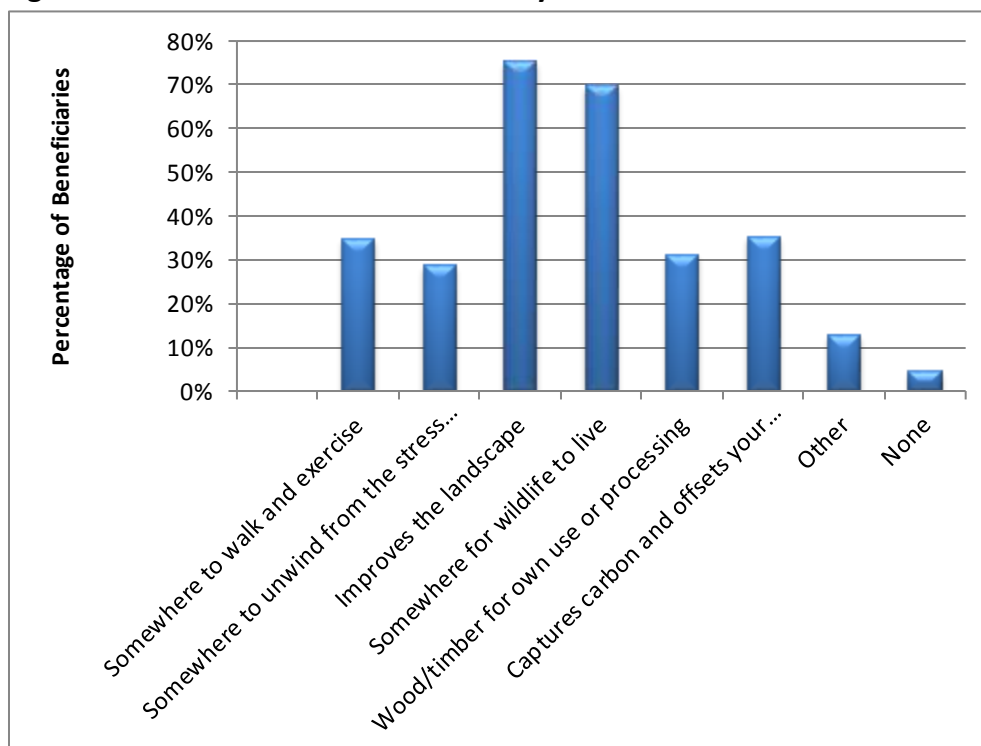
Conclusion

33. In conclusion, the rationale to include the three afforestation Measures and two forest environment Measures in the NIRDP was based on sound intervention logic. The overall contribution the Forestry Measures had on improving the environmental situation was lower than anticipated at the outset of the programme due to low uptake in all the grant schemes. However the approach taken by policy makers was robust with changes to implementation procedures made in order to increase uptake in line with expectations which led to the combined revised afforestation targets being met.
34. The extent to which actions under the schemes have improved general biodiversity and improved water quality is unquantifiable due to no measurable targets being set. However anecdotal evidence provided from the survey of successful and unsuccessful applicants indicates that there has been an increase in the biodiversity on the land of successful applicants when compared to unsuccessful applicants. The impact the forestry Measures have had on mitigating climate change cannot be quantified due to so many other contributing factors however, by increasing the area of forest the scheme has made a contribution to increasing the amount of carbon dioxide sequestration by the Northern Ireland landscape.

What other effects including those related to other objectives/axes are linked to the implementation of this Measure?

35. In addition to the environmental objectives of the Forestry Grants under NIRDP there were objectives set to maintain the supply of timber and to promote the use of forests for informal public recreation. Maintaining the supply of timber contributed to the Axis 1 objective of improving the competitiveness of the agricultural and forestry sector by giving beneficiaries the opportunity to convert poor agricultural land into timber production and increase their farm income. This is supported by results from the beneficiary survey that show 13.8% of the 195 beneficiaries gave their main reason for undertaking planting as “provides an income for them and future generations” and 31% of the beneficiaries said the “production of wood/timber for their own use and processing” was a benefit of planting. In particular the Forestry Challenge Scheme was introduced to encourage larger areas of planting to increase the economic benefits.
36. Figure 1 shows the main benefits of afforestation highlighted by beneficiaries in the survey. Other non-environmental benefits in addition to wood/timber for own use or processing included:
 - Improves the landscape (75%).
 - Somewhere to walk and exercise (35%).
 - Somewhere to unwind from the stress of modern life (29%).

Figure 4 Benefits of Afforestation Survey Results



37. The promoting of forests for informal recreation was expected to contribute to diversification into tourism and improving the quality of life under the objectives for Axis 3. However, the small size of the plantings (1.4 ha on average) and location of these new woodlands (on private land) limited the scope for recreational use, and access to the areas would have predominantly been limited to the land owner. This is supported by findings in the survey of beneficiaries that shows 35% believe they benefit from their woodland as somewhere to walk and exercise but only 21% believe it benefits the general public for the same purpose.

38. Consistency in the programme was maintained by the inclusion of the five Forestry Measures to ensure that all Northern Ireland potential forestry needs were met with regards to planting and management. Administration of the Forestry Grants within the relevant Articles of Regulation (EC) 1698/2005 and Regulation (EC) No 1974/2006 ensured demarcation of support between the Measures. The Measure meets the EU strategic objective of complementarity between community instruments as it contributes to the EU Forestry Strategy and makes small contributions to helping Northern Ireland meet obligations under the EU Water Framework Directive, EU Nitrate Directive, EU Phosphorous Regulations and EU directives to protect Natura 2000 areas.

39. There were no issues of displacement due to support from the Forestry Measures as most of the benefits were environmental and the demand for wood/timber is increasing due to the growth of the renewable energy market. Evidence from the survey of unsuccessful applicants' shows that support was mostly additional to the

economy with only 19.5% carrying out their project without securing some form of grant funding.

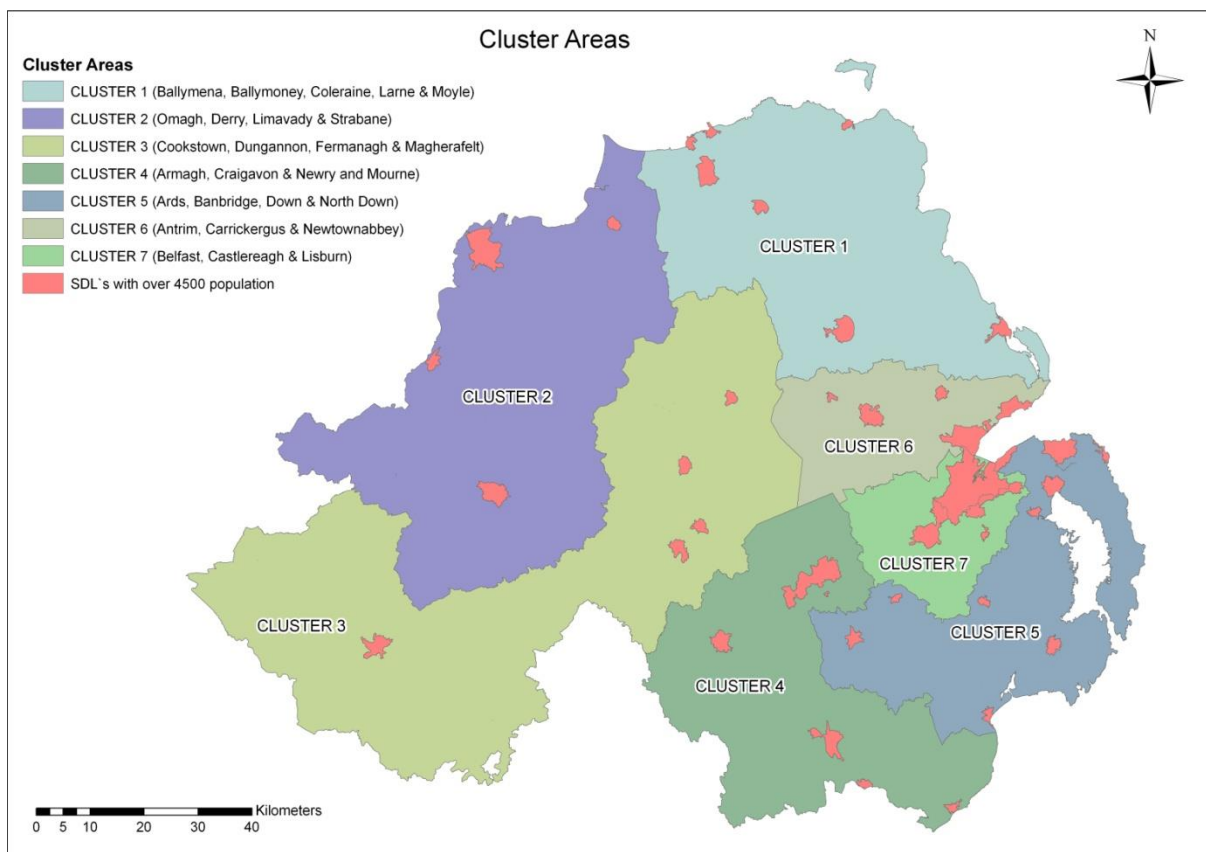
40. There were 20 beneficiaries (10.5%) in the survey that indicated afforestation didn't deliver the benefits they expected. The reasons given for the failure were poor advice from the agent (26.3%), higher than expected costs (15.8%), woodland affected by tree disease (15.8%) and poor advice from the department (5.3%).
41. There are some concerns that afforestation (in some places) is reducing the types of habitat and the additional shelter for predators is adversely affecting species including breeding waders. However, it is likely that much of the additional woodland habitat causing these issues is the result of reducing grazing by farmed livestock and less by the existence of forestry support Measures.
42. As the programme was open to all private landowners and the financial support that was received was intended to cover the costs of scheme implementation and income foregone from farming as result of participation there were no negative effects identified for non participants. This was supported by the survey findings with 80.5% of the unsuccessful applicants indicating they would consider applying to a different forestry grant scheme and no evidence in the feedback of unfair treatment.
43. In conclusion the evidence shows the experience of beneficiaries has largely been positive with 88.2% of those surveyed indicating the woodland project delivered all the benefits they had planned. There were some areas where scheme delivery could be improved with the majority of beneficiaries indicating in the survey that there could be better availability of advice on woodland grants (66.4%) and better integration of the forestry scheme with other DARD schemes e.g. NICMS (66.2%).

Implementation of the LEADER Approach in Northern Ireland.

1. The first NIRDP began in 1991 and since then there has been considerable change in rural development policy and practice, as well as changes in the rural landscape. The LEADER approach has been implemented in Northern Ireland since 1991 and has developed over time. LEADER in the 2007-2013 funding period drew on the local community-based capacity and knowledge acquired through community-led rural development in the three previous LEADER programmes. LEADER was included for the first time in 2007-2013 as a cross-cutting axis which was designed to contribute to the three other axes in the NIRDP at a local level.
2. Axis 4 (Implementation of the LEADER approach) was intended to build local capacity for employment and diversification. While contributing to the other Axes in the Programme, it also had an important role to play in improving governance and mobilising the endogenous development potential for rural areas. At the local level the programme was strategically delivered by Joint Council Clusters (JCC) representing Councils and the LEADER approach was implemented through 7 LAGs.
3. During programme development and approval the Managing Authority proposed that the Axis 4 LEADER approach should be used to deliver Axis 3 Measures. The basis for the decision was that this made best use of the expertise and experience gained from using similar local delivery mechanisms for earlier Northern Ireland programmes such as LEADER, LEADER II, LEADER+ and the Peace and Reconciliation programmes.
4. There was £100m allocated across the Axis 3 Measures (except support for rural broadband). The Measures supported a diverse range of beneficiaries and activities in rural communities and were:
 - Measure 3.1 - Diversification into non-agricultural activities;
 - Measure 3.2 - Business creation and development;
 - Measure 3.3 - Encouragement of tourism activities;
 - Measure 3.4 - Basic services for the economy and rural population;
 - Measure 3.5 - Village renewal and development; and
 - Measure 3.6 - Conservation and upgrading of the rural heritage.
5. A common theme across all four generations of LEADER has been the significant contribution (including time, knowledge and experience) of the LAG members (including many who are volunteers) in assessing area needs, assessing funding applications and making recommendations for funding as well as supporting delivery of the programme in their areas. The range of Measures supported has

broadened over the four generations of LEADER developing to include a broad spectrum of support for rural communities.

6. The key elements of the LEADER approach as defined in Article 61 of EU Regulation 1698/2005 are:
 - The development of area-based local development strategies for defined sub-regional rural territories.
 - Local public-private partnerships know as Local Action Groups.
 - A bottom-up approach with a decision-making power for local action groups and the implementation of a local development strategy.
 - The implementation of innovative approaches.
 - Implementation of co-operation projects.
 - Networking of local partnerships.
7. In 2002 a Review of Public Administration (RPA) was launched to modernise the delivery of public services in Northern Ireland. One of the planned outcomes of the review was the reduction in the number of councils from 26 to seven and the transfer of a range of functions to local government. At the time of developing the NIRDP the number of LAGs and their territory was established to mirror the proposed RPA Council structure, which did not eventually go ahead.
8. Figure 1 below shows the cluster areas / LAG territories and the council areas which contributed to each cluster.

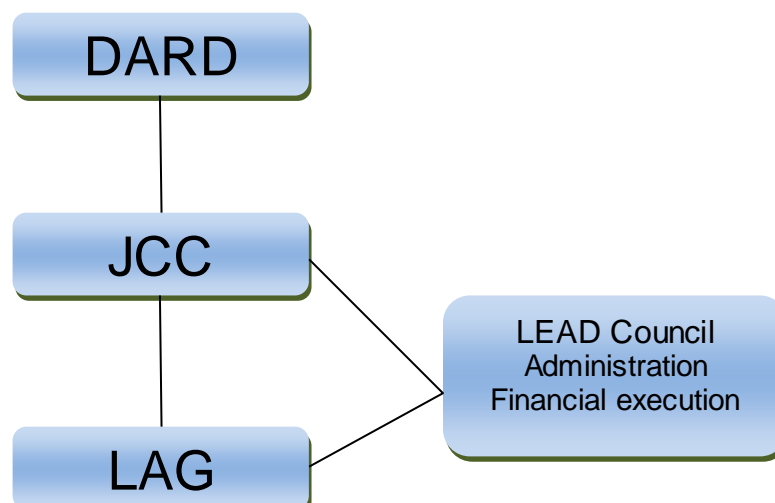


9. The role of the Council Cluster was to strategically lead and manage the delivery of the Axis 3 'Quality of Life' Measures but in particular to ensure strong accountability and transparency in delivery. The Council Cluster established a Joint Council Committee (JCC) which had the following responsibilities:
 - Selection of a Local Action Group via an open competitive and transparent process;
 - Development of a local development strategy and submission of strategy/funding bid to DARD;
 - Nomination of an administrative and Financial lead council with responsibility for the administration of public funds and satisfactory operation of the partnership;
 - Ratify approval/rejection/deferral of projects;
 - Issue of Letters of Offer; and
 - Verification and approval of payments.

10. The role of the Local Action Group was to work with the council cluster/JCC to develop a local development strategy and to:
 - Issue calls for applications for funding;
 - Arrange/chair selection panels;
 - Recommend, for formal ratification by the council cluster, the projects to be financed; and
 - Issue Letters of Offer.

11. Figure 2 below shows the LEADER structures implemented in the 2007-2013 programming period.

Figure 2 – LEADER Structures implemented in 2007.



12. The Local Action Group strategies were assessed by DARD and the funding awarded as detailed in the table 1 below.

Table 1 – Local Action Group Allocations

Cluster	Name of Local Action Group	Original allocation in £
1	NER	13,181,300
2	ARC	18,484,112
3	SWARD	20,522,227
4	SOAR	16,731,839
5	DRAP	13,498,066
6	GROW	8,890,899
7	LRP	8,691,556
	Total	99,999,999

13. Although indicative allocations of funding were made to each Axis 3 measure the Axis 3 funding in the programmes financial plan was allocated solely to Measure 4.1. One exception was the additional funds allocated to Measure 3.4 for rural broadband as a result of the European Economic Recovery Package (EERP). These funds were delivered in conjunction with the Department of Enterprise Trade and Investment (DETI) and for the purposes of this evaluation are included within Axis 3.

Measure 4.1 – Implementation of LEADER Local Development Strategies.

Background

1. The LEADER methodology enabled local communities to develop and implement integrated rural development strategies in response to local needs and taking account of national objectives. The “bottom-up” approach provided the means by which local communities were empowered to address local problems.

Outcome and Evaluation

2. Table 1 provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 4.1)

	Indicator	Position Reported 2015	Target 2007-2013
Output	Number of Local Action Groups supported	7	7
	Total size of LAGs area (Km ²)	13,613.85	13,613.85
	Total population in LAG area	1,814,318	1,759,148
	Number of beneficiaries	1,905	6,860
	Number of projects financed by LAGs	1,828	2,030
Result	Gross number of jobs created:	1,194	1,170
	Number of participants that successfully ended a training activity	676	50

3. By the end of the programming period 1,828 projects across Measures 3.1 – 3.6 had been successfully completed, representing 90% of the target number of 2,030. The total value of project claims paid to these projects was £83.3m. The number of beneficiaries reported was 1,905 which was less than 30% of the target set. The gross number of jobs created was just above the target set at 1,194 while the number of participants that successfully ended a training activity greatly exceeded the target (of 50) with a final position of 676.
4. A significant number of applications for funding, 6363 in total, were received across the Axis 3 Measures. However drop-out rates were very high with only 29% of the applications received successfully completed at programme closure.

5. Indicative allocations for each of the Axis 3 Measures and the LEADER administration were decided at the start of the programming period across all seven LAGs. Table 2 below shows the final spend position for each Measure and LEADER administration and the percentage variance against the original allocation. Total LEADER expenditure against the original allocation showed a variance of -1.4% however the allocation was adjusted in the final Programme modification which meant that LEADER achieved 100% expenditure.

Table 2 – LEADER allocation at programme approval and final expenditure.

Measure	Indicative allocation	Actual Expenditure	Variance
3.1	£20m	£15.3m	-23.5%
3.2	£20m	£10.1m	-49.5%
3.3	£12m	£15.4m	+28.3%
3.4	£12m	£26.8m	+123.3%
3.5	£12m	£10.7m	-10.8%
3.6	£4m	£5.0m	+25%
Administration	£20m	£15.3m	-23.5%
Total	£100m	£98.6m	-1.4%

Evaluation

6. The LAGs were set up to mirror the changes expected to local government through the Review of Public Administration. As these changes did not occur, the new structures (7 LAGs each working across typically 3-4 Council areas) were not able to link as directly as expected with council strategies (26 Councils). In addition, the administration function was duplicated across seven areas.
7. The findings from the *Review of LEADER Methodology in Northern Ireland Report*, (August 2013)⁴⁷ was provided to the evaluators as the main source of information to be used in relation to the ex-post evaluation of LEADER. Therefore it is acknowledged that the findings reported here are mainly attributable to that source and not original findings as there was no further primary research commissioned on LEADER following this Review.

⁴⁷ Review of LEADER Methodology in Northern Ireland Report (August 2013) - RSM McClureWatters for the Department of Agriculture and Rural Development

8. The main sources of information for the performance of the Local Action Groups in implementing the Axis 3 Measures were the post programme evaluations carried out on each LAG in preparation for the 2014-2020 Programme. For the purposes of this evaluation these are collectively referred to as the ‘PPE’s’.⁴⁸
9. With multiple council areas, there were advantages of synergies with other sub-regional activity and the opportunity to build on existing relationships. However there were disadvantages in terms of an additional layer of administration and decision-making slowing down the process and diluting the bottom up element.
10. The level of funding allocated to LAGs increased from one LEADER initiative to another. Under the 2007-2013 programming period, the seven LAGS had responsibility for £100m (which was a significant increase on the previous funding period). Funding was generally allocated in one tranche at the outset of the programme – following submission and scoring of a plan or strategy from the LAGs. However, releasing the full budget to each LAG at the outset limited DARD’s ability to be flexible in reallocating money between Measures or Axes in the event that there was significant under-spend.
11. At the outset, the Local Development Strategies were intended to be “living” documents informing decision making and how funding would be used. However some PPEs report that LAGs did not always have the opportunity to take ownership of the strategies. There was no evidence to suggest that the strategies were being revisited / updated to reflect evolving local needs and priorities.
12. Indicative allocations for each Measure were set at the start of the programming period and the targets for each LAG and Measure were based on these allocations. LAGs were subsequently given permission to move funds between Measures. As these changes did not require a Programme modification the Measure level targets were not revised.
13. Calls for applications were opened across all Measures simultaneously and did not target or focus on either sectoral or geographic opportunities specific to the LAG and its strategy. Issuing calls for applications for multiple Measures at one time

⁴⁸ GROW South Antrim Post Programme Evaluation Final Report (September 2015) – RSM McClureWatters
 Down Rural Area Partnership Rural Development Programme 2007-2013 – Programme Evaluation Final Report (August 2015) - RSM McClureWatters
 Lagan Rural Partnership – Programme Evaluation, Final Report, (September 2015) - RSM McClureWatters
 Evaluation of NER RDP (2007–2013) Final Report: (June 2015) - RSM McClureWatters
 SOAR Measure Level Evaluation Report (June 2015) -
 SWARD – Reviewing the Past and Planning for the Future – A Review of the Delivery of the Rural Development Programme 2007-2013 – Axis 3
 ARC North West – NIRDP 2007-2013 Overall Evaluation Report – Final, (December 2015) - Cogent Management Consulting

may not have been the most appropriate mechanism in which to facilitate programme delivery and may have placed considerable pressure and demands on the programme staff within reasonably short timeframes.

14. The *Review of LEADER Methodology in Northern Ireland* Report reported that working relationships between DARD and JCCs/ LAGS were not always as constructive as they could have been and there was a lack of mutual trust in some cases.
15. Owing to the new structures and many new staff in place at the beginning of the programme, LAG administration staff frequently sought advice from DARD on a number of issues such as project eligibility. DARD responded to such requests recognising the need to build capacity within the LAGs. However this developed into a much more onerous undertaking with many requests to DARD for clarification and LAGs operating in a way in which they were not intended to. This meant that DARD was involved in operational decision making when instead its role should have been to issue and manage a contract based on the strategy and allocated funding. LAGs felt that they had little room to manoeuvre and to deliver an approach that was truly “bottom up”.
16. Feedback from the JCCs and LAGs through the review of LEADER indicated a degree of frustration with the proportionality of audit inspections. A major factor had been that the Managing Authorities had aligned LEADER with the delivery of NIRD measures with the conditions of these measures then applying.

Conclusion

17. LAG structures and areas should be aligned with the new council areas therefore simplifying the structures and removing the need for the JCC.
18. The focus for the future should be on ensuring that DAERA is seen as the contracting authority and the LAGs as the delivery bodies. There should be contracts in place between DAERA and the LAGs setting out what needs to be delivered by when and how payment will be released on this basis.
19. DAERA should be responsible for setting out a common set of operational procedures which meet DAERA and EC requirements. It would be beneficial if the LAGs could be involved in the development of these operational procedures to ensure there is shared understanding and ‘buy-in’.
20. As Managing Authority and Paying Agency, DARD remains ultimately accountable for EU funds. Controls are in place to ensure adherence to regulations and to avoid disallowance but these should not exceed the regulatory requirement. DAERA should continue to set out its control, audit and monitoring requirements, as required by the EC. However it would be beneficial if DAERA met with the LAGs to

detail their requirements. These meetings should ensure that there is common understanding of the various levels of audit that are necessary and the level / frequency of these. DAERA should also continue to reinforce that these are requirements from the EC and therefore they are mandatory and non-negotiable.

21. LAGs should be encouraged to take ownership and have an understanding of their own strategy and to ensure that they have an understanding of how to translate strategic objectives into operational actions.
22. A review of targets and indicators should be carried out after any revisions of the LAG strategies and any changes to allocations for specific activities/Measures.
23. It would also be advisable that a ring fenced percentage of the administration allocation be designated specifically to animation functions so that LAGs are required to carry out animation work in order to:
 - develop the number and quality of projects coming forward for assessment; and
 - reduce the amount of resource invested in rejected / withdrawn applications by having processes in place to filter these out an earlier stage.

Measure 3.1 – Diversification into non-agricultural activities.

Background

1. Measure 3.1 aimed to assist farm households to diversify into non-agricultural activities and, as a consequence, maintain or increase the income of the farm households and create employment opportunities. Eligible applicants were farm owners or members of a farm family who had written permission to carry out the diversification activities from the farm owner.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015. It should be noted that the basis for the target figure for Gross Value Added (GVA) in supported businesses is unreliable and therefore is not considered within the evaluation.

Table 1 - Indicative quantified targets for EU common indicators

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of beneficiaries:	636	600
	Total volume of investment:	€40,827,273	€45.0m
Result	Increase in non-agricultural GVA in supported businesses	€4,625,790	12,357
	Gross number of jobs created:	404	600
Impacts	Net additional value expressed in PPS	Not available	2%
	Net additional FTE jobs created: <ul style="list-style-type: none"> • On-farm/off-farm jobs • Gender • Age category 	Not available at Measure level	360

Table 2 - Indicative additional programme-specific indicators and quantified targets

	Indicator	Final Position Reported	Target 2007-2013
Result	Number of new businesses created	172	400
	Potential volume of energy generated from NIRDP funded renewable energy projects expressed as kilowatt hours per annum	5,305,282	750,000
Impacts	Number of new businesses which are still in existence two years after final funding	76 ¹	400
	Agricultural labour units reallocated to non agricultural activities	Not available	375

¹It should be noted that the figures reported in the PPEs for this indicator are likely to be understatements as in some cases insufficient time will have elapsed for the final outturn to be known.

Applications Analysis

3. Over 2,000 applications seeking grant assistance of around £74m were received under Measure 3.1. Of these, 29% of applications were rejected at project eligibility/assessment stage and 27% were withdrawn by applicants during the project assessment stage. Forty-four per cent of applications received were issued with Letters of Offer (LoO) at a total grant value of £22.8m.
4. Sixty-seven per cent of LoOs were successfully completed, with promoters drawing down over £15m in grant assistance, resulting in total investments in farm diversification of almost £34m when match funding was taken into account. Of the LoOs issued, six per cent totaling £1.1m in grant assistance were not accepted by promoters, 27% of LoO grant offers totaling £5.4m were accepted by applicants but later terminated. The majority were withdrawn by promoters, with the remainder closed by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.
5. In summary, over 55% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the LoOs

issued, 33% were later withdrawn or terminated resulting in slippage of £6.5m grant commitment, and from the LoOs completed there was further slippage of £1m (6%).

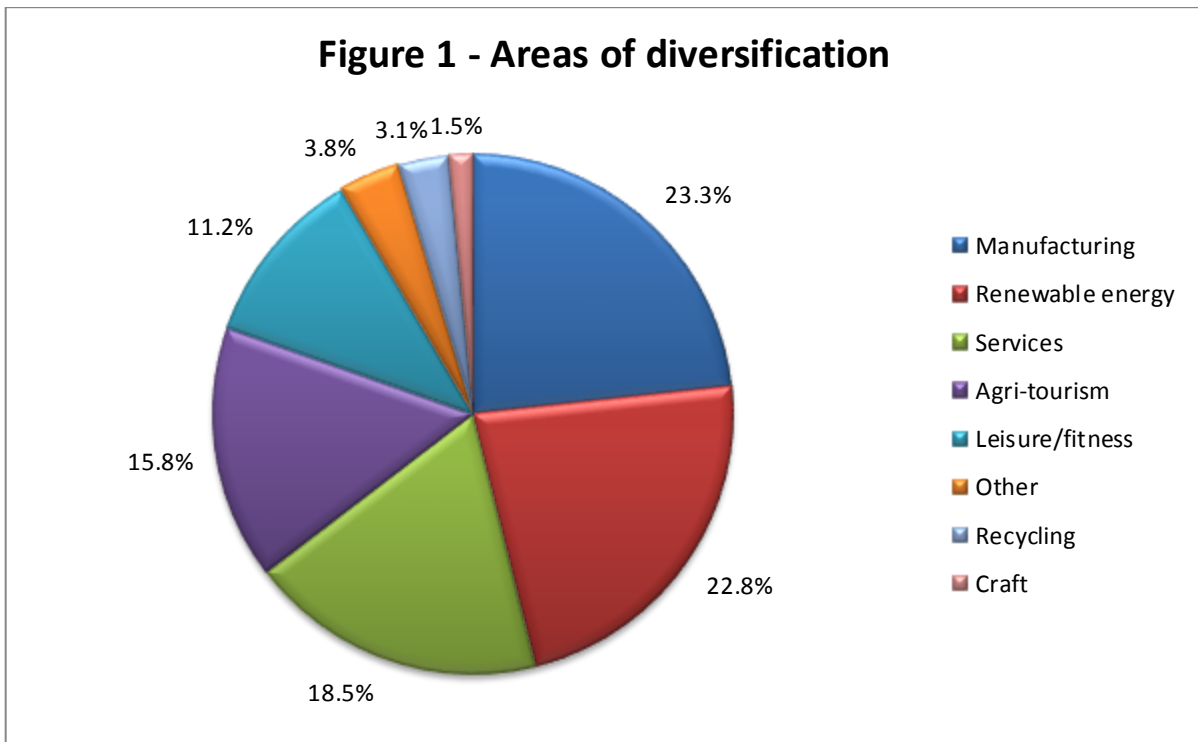
Indicator Analysis

6. The final position for the number of beneficiaries receiving support for their efforts to diversify into non-agricultural activities was 636, exceeding the target set of 600. Table 3 below shows the age/sex breakdown of the beneficiaries under 3.1.

Table 3 - Breakdown of beneficiaries by age/sex (Measure 3.1)

Age	Male	Female	Total
<25	11	4	15
25-65	489	102	591
>65	24	6	30
Total	524	112	636
Percentage	82	18	100

7. The figures show that 82% of the beneficiaries were male and 18% were female. Eligible applicants under this Measure were farm owners (or members of a farm family who had written permission to carry out the diversification activities from the farm owner.) Since the vast majority of registered farm owners were male, this would be the most likely explanation for the very high proportion of male beneficiaries under this Measure. An analysis of the age profile breakdown of the beneficiaries by gender shows no significant difference.
8. Of the 606 beneficiaries allocated to sectors diversification into non-agricultural activities spanned a wide range of areas (figure 1). The most popular areas for diversification were manufacturing and renewable energy production, accounting for 23% each of the total followed by services and agri-tourism, at 18.5% and 15.8%, respectively.



9. As well as projects related to the introduction of entirely new non-agricultural activities/businesses that sought to maintain or increase the income of the farm households, it should be noted many projects also related to investment in pre-existing farm diversification projects.
10. Measure 3.1 achieved 91% of the total volume of investment target. An investment of approximately €41m was secured, including match funding, which although substantial, does fall short of the target of €45m. This can be explained by the fact that the original allocation to the Measure across all seven LAGs was £20m but the actual final expenditure was £15.3m.
11. A majority of Measure 3.1 recipients (of the PPEs which covered this area) suggested that the NIRD support they received was a grant towards the cost of capital investment (e.g. for equipment). However, many beneficiaries also stated that in addition to the 50% match funding that was required, they had to contribute further investment to the project. Whilst many suggested that the additional expenditure related to further planned investments, a number indicated that the additional expenditure related to items that they were unaware of at the time of their funding application. For those respondents that were able to quantify the additional investments, they ranged from £3,000 to over £100,000.
12. It was recorded that the gross number of jobs created under Measure 3.1 was 404 for individuals (other than, where relevant, the business owner.) This fell significantly short of the target of 600 jobs. However it should be noted that a very high proportion of the successful applications were related to renewable energy. In terms of job creation it was the case that diversification did not automatically lead to

job creation particularly in projects relating to renewable energy where the emphasis was on alternative income streams with little or no additional labour input.

13. The table below shows the age/sex breakdown of the jobs created under 3.1

Table 5 - Breakdown of jobs by age/sex (Measure 3.1)

Age	Male	Female	Total
<25	72	50	122
25-65	210	71	281
>65	1	0	1
Total	283	121	404
Percentage	70	30	100

14. The figures show that 70% of the 404 jobs created were held by males and 30% by females. The age profile of the created jobs showed that, in the case of males 25% of the jobs created were positions held by people aged under 25 which was significantly lower than the 41% for females. 74% of the male job holders were in the 25-65 age group compared to 59% of females.
15. The total volume of renewable energy target was exceeded but the number of new businesses created at 172, was less than 50% of the 400 target set.
16. The overall total of businesses created under 3.1 which were still in existence two years after final funding was 76. This is much lower than the target of 400 but should be taken in the context that only 172 new business businesses were created. However, it should also be noted that the figures reported in the PPEs for “businesses created under 3.1 which are still in existence two years after final funding” were likely to be an underestimate as in some cases insufficient time would have elapsed for the final outturn to be known.
17. Of the ten indicators with target values defined in table 1:
- 2 targets, namely *number of beneficiaries* and *potential volume of energy generated from NIRDP funded renewable energy projects expressed as kilowatt hours per annum* were fully achieved or exceeded;
 - 5 targets were partially achieved;
 - 3 targets were not achieved / measured.

Conclusion

18. The original Measure allocation was £20m and the targets were set on this basis. The subsequent economic downturn meant that funds were moved from the Measure to other less economic measures particularly Measures 3.4 and 3.6. Although the total number of beneficiaries supported exceeded the target, feedback from key informants suggested that many projects were scaled back in response to the economic climate and a larger number of smaller projects were supported. This would account for the targets set for new business creation, the total volume of investment and the number of jobs created not being achieved.
19. Survey findings indicated that a majority of Measure 3.1 recipients felt that, as a result of the project, their business experienced tangible impacts i.e. changes from what would have been the case in the absence of the support. These included:
 - Increases in their business' turnover;
 - Creation of a job for themselves directly i.e. through self-employment in a new business venture;
 - Creation of a job/ jobs for individuals other than the business owner; and
 - Helping to sustain pre-existing employment within the business.
20. In addition to the positive impacts upon the businesses' turnover and employment, many respondents indicated that the receipt of NIRDP support had led to other impacts/benefits (some unexpected) for them or their business. These included:
 - Their business had become more competitive;
 - It had contributed to the business' survival;
 - It had led to the introduction of new products or processes;
 - There had been improvements in the skills of the workforce.
21. Overall the evaluation provides evidence that Measure 3.1 activity successfully assisted farm households to diversify or further diversify into non-agricultural activities and, as a consequence, maintain or increase the income of the farm households and create employment opportunities. In doing so, it is evident that the projects supported under Measure 3.1 have helped to:
 - Strengthen the social and economic infrastructure of rural areas; and
 - Create employment opportunities and conditions for the creation and development of rural micro businesses.

Measure 3.2 – Business Creation and development.

Background

1. Measure 3.2 aimed to develop the economic infrastructure in rural areas through creating employment opportunities and promoting entrepreneurship. The Programme provided support for existing micro-enterprises and for individuals wishing to set up a new micro-enterprise in a non-agricultural sector.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015. It should be noted that the basis for the target figure for Gross Value Added (GVA) in supported businesses is unreliable and therefore is not considered within the evaluation.

Table 1 - Indicative quantified targets for EU common indicators (Measure 3.2)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of micro- enterprises supported:	447 (includes 96 new businesses)	1,200
	Total volume of investment	€24,270,592	€41.7m
Result	Increase in non-agricultural GVA in supported businesses	€11,420,807	£12,357
	Gross number of jobs created	676	500
Impacts	Net additional value expressed in PPS	Not available	2%
	Net additional FTE jobs created: <ul style="list-style-type: none"> • On-farm/off-farm jobs • Gender • Age category 	Not available	300

Table 2 - Indicative additional programme-specific indicators and quantified targets.

	Indicator	Final Position Reported	Target 2007-2013
Result	Potential volume of energy generated from NIRDP funded renewable energy projects expressed as kilowatt hours per annum	148,272	300,000
Impact	Number of new businesses which are still in existence two years after final funding	41 (This is based on 6/7 LAG PPEs which reported this figure)	100%

Applications analysis

3. Over 2,200 applications seeking grant assistance of almost £72m were received. Of these 33% of applications were rejected at project eligibility/assessment stage. A further 36% were withdrawn by applicants during the project assessment stage. Thirty-one per cent of applications received were issued with Letters of Offer (LoOs) at a total grant value of over £16m.

4. Sixty-seven per cent of LoOs were successfully completed with promoters drawing down over £10m in grant assistance, resulting in total investments in micro-business of over £20m when match funding is taken into account. Of the LoOs issued, nine per cent, totaling £1.2m in grant assistance were not accepted by promoters, 24% of LoO grant offers totaling £3.9m were accepted by applicants but later terminated. The majority were withdrawn by promoters, with the remainder by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.

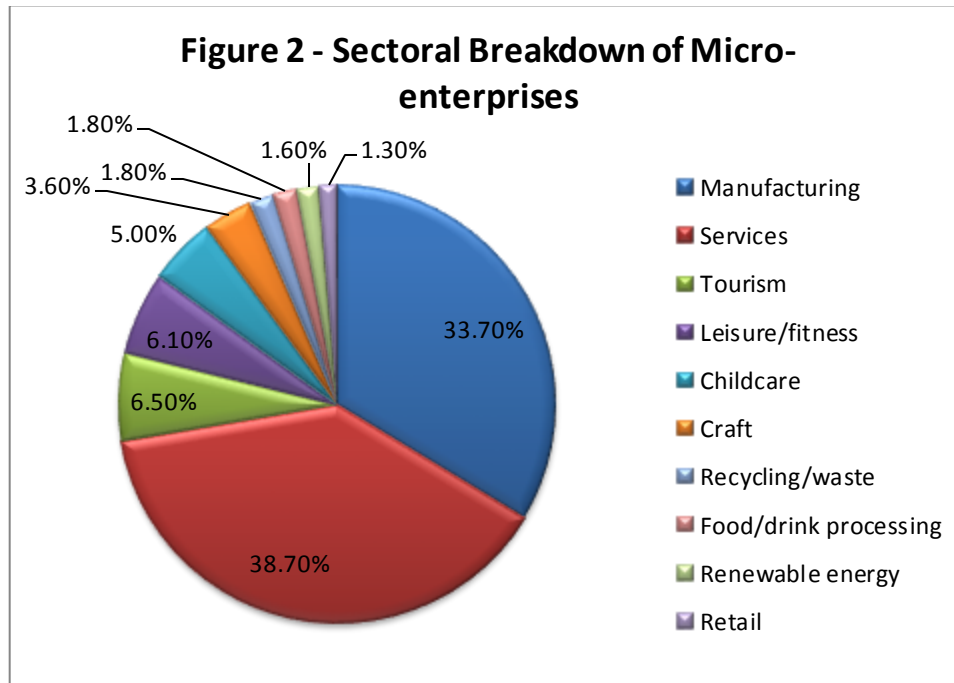
5. In summary, almost 70% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the total LoOs issued, 33% were later withdrawn or terminated resulting in slippage of £5.2m grant commitment, and from the LoOs completed (originally awarded £10.9m) there was further slippage of £803k (7%).

Indicator analysis

6. Measure 3.2 (Business creation and development) faced challenges in relation to the economic climate resulting in programme targets set for number of micro-enterprises supported and total volume of investment underachieving. The final position for the number of micro-enterprises receiving support was 447, falling well short of the target set of 1,200. As for Measure 3.1 the LAGs moved 50% of the

Measure allocation to less economic Measures such as 3.4 and 3.6 however the targets were not adjusted.

- Figure 1 below shows the sectoral breakdown of the micro-enterprises supported under 3.2.



- The figures showed that the vast majority of the micro-enterprises supported were in the services and manufacturing sectors, with 38.7% and 33.7% of the overall total, respectively. Of the 447 businesses supported, 96 (21%) were recorded as new businesses created. Less than 60% of the total volume of investment targets was achieved.
- Although the number of micro-businesses supported and total volume of investment targets were significantly under achieved, the actual businesses supported were very successful in creating new jobs with the target of 500 new jobs (headcount) being surpassed by 26%. Table 5 below shows the age/sex breakdown of the jobs created under Measure 3.2.
- The figures show that 69% of the jobs created were held by males and 31% by females. The analysis of age category by gender showed that 26% of those under 25 were held by males compared to 39% by females. This position was reversed for the 25-65 age category where 73% were male and 61% female.

Table 5 - Breakdown of jobs by age/sex (Measure 3.2)

Age	Male	Female	Total
<25	122	82	204
25-65	342	127	469
>65	3	0	3
Total	467	209	676
Percentage	69	31	100

11. Only eight micro-businesses received support for the installation of renewable technology achieving less than 50% of the potential volume of energy generated target.
12. The overall total of businesses created under 3.2 which were still in existence two years after final funding is 41. The target set for this indicator was that 100% of the new businesses would still be in existence two years after final funding and this has not been achieved. However this was an ambitious target which was unlikely to be achievable. Of the 447 micro enterprises supported under Measure 3.2, 96 were new businesses. When taken as a percentage of the new businesses, the proportion of new businesses created under 3.2 which were still in existence two years after final funding was 43%.
13. In total under Measure 3.2 there were eight targets. Of these:
 - 1 target was fully achieved/surpassed;
 - 5 targets were partially achieved;
 - 2 targets were not achieved/ recorded.

Conclusion

14. Measure 3.2 (Business creation and development) faced challenges in relation to the economic climate resulting in programme targets set for number of micro enterprises supported and total volume of investment underachieving. Funds were allocated to other Measures but the targets were not adjusted accordingly.
15. Although a target was not set for the creation of new businesses, of the 447 businesses supported 21% were recorded as new. Job creation by the micro enterprises supported was very successful with 676 new jobs created against a target of 500. The over achievement of this target can be explained by a significant

124 jobs being created by just nine projects. The top performing 31 projects created 297 jobs between them.

16. Other less tangible / unexpected impacts of Measure 3.2 for individuals or their business identified from survey results included the following:
 - Entry into new geographic markets;
 - Improved the skills of the workforce or individuals;
 - Resulted in the transfer of knowledge from or to other companies or individuals;
 - Led to the introduction of new products or processes within the business.

17. Indirect benefits are difficult to measure although it is highly likely that there were impacts on other areas of the rural economy with many of the projects supporting companies to expand and develop into new markets through new products and processes. It was also the case that the projects funded under Measure 3.2 made a positive contribution to economic growth in rural areas.

18. Measure 3.2 was successful in its aim to develop the economic infrastructure in rural areas through creating employment opportunities and promoting entrepreneurship. By improving the capital infrastructure for those interested in investing in new micro enterprise projects and by offering a capital grant scheme for entrepreneurs, Measure 3.2 provided support for existing micro-enterprises and for individuals wishing to set up a new micro-enterprise in a non-agricultural sector. This would have contributed to the development of a strong micro-enterprise sector in rural areas.

Measure 3.3 - Encouragement of tourism activities

Background

1. The aim of Measure 3.3 was to maximise opportunities for tourism development by utilising natural and cultural resources. Through the sustainable development of the rural economy, the aim was to attract visitors and create new employment opportunities by providing support to existing rural tourism enterprises and for individuals wishing to develop tourism activities.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 3.3).

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of tourism actions supported	251	300
	Total volume of investment	€27,380,989	€24.9m
Result	Additional number of tourist visits	1,539,075	10% increase
	Gross number of jobs created	46	50
	Increase in non-agricultural gross value added in supported businesses	Not Implemented	3,600
Impacts	Net additional value expressed in PPS	Not available	2%
	Net additional FTE jobs created: <ul style="list-style-type: none"> • On-farm/off-farm jobs • Gender • Age category 	Not available	30

Table 2 - Indicative additional programme-specific indicators and quantified targets (Measure 3.3).

	Indicator	Final Position Reported	Target 2007-2013
Result	Number of new tourism businesses created	20	60
	Potential volume of energy generated from NIRDP funded renewable energy projects expressed as kilowatt hours per annum	39,440	200,000
Impact	Number of new businesses which are still in existence two years after final funding	Not available	60

Applications Analysis

3. In excess of 800 applications seeking grant assistance of around £66m were received. Of these, 30% of applications were rejected at project eligibility/assessment stage and 34% were withdrawn by applicants during the project assessment stage. Thirty-six per cent of applications received were issued Letters of Offer (LoOs) at a total grant value of £19m.
4. Eighty-four per cent of LoOs were successfully completed, with promoters drawing down almost £15.4m in grant assistance, resulting in total investments in Tourism of over £22m when match funding is taken into account.
5. Of the LoOs issued, three per cent, totaling £511k in grant assistance were not accepted by promoters. Thirteen per cent of LoO grant offers totaling £1.2m accepted by applicants were later terminated. The majority were withdrawn by promoters, with the remainder by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.
6. In summary, almost 63% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the 298 total LoOs Issued (£18.9m grant awarded), 16% were later withdrawn or terminated resulting in slippage of £1.7m grant commitment, and from the 251 LoOs completed (originally awarded £17.2m) there was further slippage of £1.9m (11%).

Indicator analysis

7. The final position for the number of tourism actions that received support was 251, which was 16% below the target set of 300. This is despite an increase in the

Measure allocation from £12m to £15.4m (+28.3%). In September 2013 the Managing Authority amended the NIRDP to increase the maximum aid intensity for strategic publically funded projects for Measures 3.3, 3.4, 3.5 and 3.6 to 85%. The higher aid intensity was to encourage larger scale projects with wider community benefits. As a result 8 strategic projects were supported under Measure 3.3 with an approximate value of £3.5m. This higher spend on a small number of projects would have contributed to the target on the number of tourism actions supported not being met and the total volume of investment being exceeded.

8. Tourism actions supported spanned a broad range of areas including accommodation projects, heritage and culture projects and maritime projects. Many of the actions supported involved the development of tourism infrastructure, for example cycle and walking trails, visitor facilities, signage etc which did not directly create jobs. However the improvement of visitor facilities and access had the knock on effect of increasing visitors to areas which in turn provided additional income for local businesses. While the Measure supported a total of 251 tourism actions it is worth noting that a further 85 tourism enterprises were supported under Measure 3.1 (diversification).
9. Of the 251 projects supported over 1.5 million additional tourist visits were recorded. Based on the best available information it was estimated that over 90% were day visitors (tourism facilities and recreational activities) with the remainder recorded as overnight stays.
10. The gross number of jobs created was 46 under Measure 3.3 which was close to the set target of 50. The table below shows the age/sex breakdown of the jobs created under 3.3.

Table 1 - Breakdown of jobs by age/sex (Measure 3).

Age	Male	Female	Total
<25	7	6	13
25-65	20	13	33
>65	0	0	0
Total	27	19	46
Percentage	59	41	100

11. The figures show that 59% of the jobs created were held by males and 41% by females. An analysis of the age profile breakdown of the beneficiaries by gender shows only marginal differences.
12. In terms of the number of tourism businesses created, the final position reported at 20, was only a third of the set target. While it had been hoped that the Measure would have supported small tourism enterprises the economic downturn and the

shift in focus to council led strategic projects meant that the target was not achieved. At just under 40,000 kilowatt hours per annum, the potential volume of energy generated from NIRDP funded renewable energy projects achieved was only a fraction of the 200,000 kilowatt hours target set.

Conclusion

13. Under Measure 3.3, the NIRDP contributed to the development of rural tourism infrastructure in Northern Ireland and to building upon the tourism potential of the area. In summary the Measure delivered the following:
 - Supported a wide range of tourism actions including accommodation projects, leisure activity projects, heritage and culture projects, maritime activities and marketing activities.
 - 251 tourism actions supported.
 - 20 new tourism businesses created in areas such as accommodation, business support, heritage/historical, leisure activities and marketing.
 - Investment of over £22.3m.
 - 39,440KWh of renewable energy generated through supported projects.
14. Survey results from recipients of funding under Measure 3.3 revealed evidence of development or expansion of their existing tourism activity as a result of the funding. Results also showed that many either had or expected to support the creation of new activity through their projects. Recipients also reported increases in visitor numbers.
15. There was also evidence that the receipt of NIRDP support under Measure 3.3 led to other impacts/benefits (some unexpected) for recipients or their area. These included:
 - Contributed to the promotion of the local area;
 - Contributed to improved signage, awareness and access to places and facilities;
 - Capitalised on local heritage (be that water, upland, environment and/or built-form based);
 - Developed niche product areas (for example genealogy, emigration, activity tourism, coastal tourism, angling and shooting).
16. Although the indirect benefits are difficult to measure it was likely that there were impacts on other areas of the rural economy with many of the projects supporting tourism activities in rural areas. These are likely to have had a positive impact on other enterprises in the regions with the additional tourist footfall supporting other accommodation businesses, restaurants and retail enterprises.

Measure 3.4 – Basic services for the economy and rural population.

Background

1. Measure 3.4 of the NIRDPA aimed to improve or maintain living conditions and increase the attractiveness of rural areas through the provision of more and better basic services. The Measure also aimed to encourage and secure Broadband services to rural businesses. Rural broadband was delivered by the Department of Enterprise, Trade and Investment (DETI) and not through the LEADER Local Action Groups.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 3.4)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of supported actions	228	60
	Total volume of investments	€45,227,261	€28.8m
Result	Population in rural areas benefiting from improved services	274,711	350,000
	Gross number of jobs created	66	10
Impacts	Net additional value expressed in PPS	Not available	2%
	Net additional FTE jobs created: <ul style="list-style-type: none"> • On-farm/off-farm jobs • Gender • Age category 	Not available	6

Table 2 - Indicative additional programme-specific indicators and quantified targets (Measure 3.4)

	Indicator	Final Position Reported	Target 2007-2013
Result	Potential volume of energy generated from NIRDP funded renewable energy projects expressed as kilowatt hours per annum	139,059	300,000
	Projects benefiting children and young people in the rural community	147	10

Table 3 - Indicative quantified targets for EU common indicators delivered by a separate Government Department (Measure 3.4).

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of supported actions	2	2
	Total volume of investments	€8,906,334	€8.09m

Table 4 - Indicative additional programme-specific indicators and quantified targets delivered by a separate Government Department (Measure 3.4).

	Indicator	Final Position Reported	Target 2007-2013
Result	Number of rural premises with access to improved broadband services	17,094 (Next Generation) 17,230 (NIBIP)	19,000

Applications Analysis

3. A total of 668 applications seeking grant assistance of almost £85.2m were received. Of these applications, 40% were rejected at project eligibility/assessment stage and 25% were withdrawn by applicants during the project assessment stage. Thirty-five per cent of applications received were issued with Letters of Offer (LoOs) at a total grant value of around £30m.

4. Ninety-three per cent of LoOs were successfully completed with promoters drawing down almost £26.8m in grant assistance, resulting in total investments in basic services of around £37m when match funding is taken into account.
5. Of the LoOs issued, three per cent of applications totaling £1.4m in grant assistance did not accept their offer. Four per cent of LoO grant offers totaling £501k accepted by applicants were later terminated. The majority were withdrawn by promoters with the remainder by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.
6. In summary, over 65% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the total LoOs Issued (£29.9m grant awarded), seven per cent were later withdrawn or terminated resulting in slippage of £1.9m commitment, and from the LoOs completed (originally awarded £28m) there was further slippage of £1.2m (5%).

Indicator analysis

7. Measure 3.4, Basic Services for the economy and rural population, exceeded its targets for the number of supported actions, total volume of investment, gross number of jobs created and number of projects benefiting children/young people. This measure benefited significantly from the change to the NIRD in 2013 which increased the maximum aid intensity to 85% for strategic projects. A total of 19 strategic projects were supported with an approximate value of £11.3m, which was 42% of the total Measure expenditure. As previously discussed the Measure benefited in the reallocation of funds from the more economically focused Measures of 3.1 and 3.2 which had under-performed as a result of the economic downturn.
8. However, the population benefiting from improved services and the potential volume of renewable energy were below target at 79% and 46% of their respective targets. Evidence from key informants however pointed to the difficulty in developing guidance for the measurement of population benefiting and whether this was applied consistently across all seven LAGs. As a result the accuracy of this indicator is questionable.
9. The target for the number of rural premises with access to improved broadband under projects delivered by a separate government department has been exceeded.
10. Measure 3.4 invested £1.5m in the Department of Enterprise, Trade and Investment's project to provide next generation broadband services to 85% of businesses by 2012. The scheme funded fibre upgrades to 204 cabinets across rural Northern Ireland. While figures on the number of connections to each cabinet were not recorded, the Axis 3 investment ensured that 17,094 rural businesses and

rural dwellers had a connection to improved Broadband services. It was recognised that a significant number of private telephone line holders are farm businesses.

11. A further £5m was invested in the delivery of broadband infrastructure through the Department of Enterprise Trade and Investment's Broadband Improvement project. The main objective of this additional investment was to ensure access to broadband for rural businesses and premises located in areas with no or very poor broadband service. By the end of the period access to broadband service had been installed in 2,135 of the post code areas targeted under the LoO resulting in the availability of broadband service to 17,230 rural premises.
12. The gross number of jobs created under Measure 3.4 was 66 which was significantly above the set target of 10 jobs. The table below shows the age/sex breakdown of the jobs created under 3.4.

Table 5 - Breakdown of jobs by age/sex (Measure 3.4)

Age	Male	Female	Total
<25	0	7	7
25-65	12	47	59
>65	0	0	0
Total	12	54	66
Percentage	18	82	100

13. The figures show that overall 18% of the jobs created were held by males and 82% by females. The high percentage of females is explained by the fact that the jobs created under this Measure were in areas generally dominated by females, such as childcare provision. In the case of males all of the jobs created were positions held by the 25-65 age group compared to females where 13% were held by people aged under 25 and 87% were held by the 25-65 age group.

Conclusion

14. A wide range of projects were taken forward under Measure 3.4. Subsequently, the projects were considered by applicants to have had a wide range of impacts on the economy and/or the rural population. Some of the key tangible impacts included:
 - Improving facilities and services for those with disabilities;
 - Improving or introducing new recreational facilities;
 - Improving childcare provision;
 - Improving children's play areas;

- Addressing core issues such as: Transport, Fuel Poverty, Utility/ Infrastructure provision.
15. Other less tangible / unexpected impacts or indirect effects identified as a result of Measure 3.4 include the following:
- Improving young people's mental health;
 - Increasing levels of physical activity;
 - Improving older people's, women's and farmers' well being;
 - Improving the involvement and engagement of marginalised and excluded people in social and economic activities (through initiatives such as Home-working, Bespoke training, mentoring and support);
 - Supporting innovative and joined up approaches to rural service promotion and delivery, particularly those using community facilities and/or developing rural service hubs to increase the sustainability of rural communities.
16. Measure 3.4 assisted a diverse range of projects which improved or maintained the living conditions and welfare of those living in rural areas and increased the attractiveness of such areas through the provision of more and better basic services.

Measure 3.5 – Village Renewal and Development.

Background

1. In order to support integrated village initiatives which promote community development and regeneration, the NIRDP supported animation and capacity-building within and between villages and their surrounding rural areas. This included the formulation of integrated action plans to define the role of the village and fully develop the potential of rural areas.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 3.5)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of villages where actions took place	257	50
	Total volume of investments	€19,046,952	€28.8m
Result	Population in rural areas benefiting from improved services	232,485	300,000
	Gross number of jobs created	2	10
Impacts	Net additional value expressed in PPS	Not available	2%
	Net additional FTE jobs created:	Not available	6
	<ul style="list-style-type: none"> • On-farm/off-farm jobs • Gender • Age category 		

Table 2 - Indicative additional programme-specific indicators and quantified targets (Measure 3.5)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of community groups supported to undertake rural development within their communities	236	50
Result	Projects supported to encourage good cross community relations	21	20
	Number of funded projects undertaken by NIRDP supported community groups	103	50

Applications Analysis

3. A total of 360 applications seeking grant assistance of over £23m were received. Of these, ten per cent of applications were rejected at project eligibility/assessment stage and 22% were withdrawn by applicants during the project assessment stage. Sixty-eight per cent of applications received were issued with Letters of Offer (LoOs) at a total grant value of around £12.7m.
4. Ninety-two per cent of LoOs were successfully completed drawing down almost £10.7m in grant assistance, resulting in total investments in Village Renewal of around £11m when the 5% match funding is taken into account.
5. Of the LoOs issued, three per cent of applications totaling £316k in grant assistance did not accept their offer, five per cent of LoO grant offers totaling £320k accepted by applicants were later terminated. The majority were withdrawn by promoters with the remainder by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.
6. In summary, over 30% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the 247 total LoOs Issued (£12.7m grant awarded), eight per cent were later withdrawn or terminated resulting in slippage of £636k grant commitment. From the 228 LoOs completed (originally awarded £12.1m) there was further slippage of £1.3m (11%).

Indicator analysis

7. Measure 3.5, Village Renewal and Development, considerably exceeded its target for the number of villages where actions took place. The target had been set jointly with the Managing Authority at the start of the Programme however the evidence

from key informants was that the implementation of the measure through the bottom-up approach varied across the LAGs. The result was that in some LAGs the available funds were spread across a larger number of villages rather than being strategically focused and this resulted in the target being over achieved. Only one strategic projects with a value of £379k was supported.

8. The total volume of investment target was not achieved and there were only two jobs created. This was in line with the final expenditure being 10% lower than the original allocation. The target for the number of community groups supported to undertake rural development within their communities was well exceeded as was the target for the number of funded projects undertaken by NIRDP supported community groups. The target for the number of projects supported to encourage good cross community relations was also met.
9. It was recorded that the gross number of jobs created under Measure 3.5 was two and these were both positions held by females in the 25-65 age group.

Conclusion

10. A wide range of projects were taken forward under Measure 3.5. Subsequently, the projects were considered by applicants to have had a wide range of impacts on the economy and/or the rural population. Some of the key impacts included:
 - Physical improvements to the village, such as improving walkways, signage and enhancing the appearances of buildings and frontages;
 - Economic improvements to the village via attracting non-locals and tourism to the villages;
 - Social improvements to the village through the provision of recreation space and facilities, Village Halls and community centres to provide community facilities, creating 'shared space' for the community;
 - Environmental improvements to the village, such as clearing trails, removing rubbish, planting flower beds; restoring villages' architectural and historical legacy.
11. Some less tangible impacts or effects of the activities undertaken under Measure 3.5 were:
 - Addressed issues of rural isolation by providing improved and expanded user facilities and access to services;
 - The creation of multi-use centres that are used by all sections of the community can enhance community relations and engender a sense of community ownership.
 - Legacy potential, e.g., creating the conditions for the potential establishment of new clubs and interest groups;
 - Encouraged increased footfall to the area by providing access to services and activities.

12. Measure 3.5 assisted projects which enabled and encouraged residents of villages and surrounding areas to create visions and action plans to ensure the full potential of such areas was achieved. It also provided funding for specific projects which supported integrated village initiatives, promoting cross-community development and regeneration.

13. The Measure well exceeded targets for number of villages where actions took place, number of community groups supported to undertake rural development of their community and number of funded projects undertaken by NIRDP supported community groups. The number of projects supporting good cross community relations was also exceeded. However, total volume of investment, population benefiting from improved services, and gross number of jobs created all fell short of their targets.

Measure 3.6 – Conservation and Upgrading of the Rural Heritage.

Background

1. The NIRDP aimed to use the natural resources in Northern Ireland’s rural areas to create new employment opportunities and develop the rural economy. This was to be achieved through supporting local village initiatives to preserve and upgrade their rural heritage.

Outcome and Evaluation

2. The following tables provide details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 3.6)

	Indicator	Final Position Reported	Target 2007-2013
Output	Number of rural heritage actions supported	78	20
	Capital Enhancement Items for Restoration of Traditional and Heritage Features funded under NICMS	70	500
	Total volume of investments	€9,523,075	€8.3m
Result	Population in rural areas benefiting from improved services	108,320	100,000

Table 2 - Indicative additional programme-specific indicators and quantified targets (Measure 3.6)

	Indicator	Final Position Reported	Target 2007-2013
Impact	Share of population enjoying access to amenity land/nature or conserved rural heritage sites as a result of assisted actions	Not available	200,000

Applications Analysis

3. There were 227 applications received under this Measure seeking grant assistance of over £17m. Of these applications, 23% were rejected at project eligibility/assessment stage and 38% were withdrawn by applicants during the project assessment stage. Thirty-nine per cent of applications received were issued with Letters of Offer at a total grant value of around £6m.
4. Eighty-eight per cent of LoOs were successfully completed with promoters drawing down over £5m in grant assistance, resulting in total investments in rural heritage of £8m when match funding is taken into account.
5. Three per cent of the LoOs issued, totaling over £110k in grant assistance were not accepted by promoters. Nine per cent of LoO grant offers totaling over £150k accepted by applicants were later terminated. The majority were withdrawn by promoters with the remainder by the JCC due to the applicant not fulfilling the obligations of the LoO or irregularities being discovered.
6. To summarise, over 60% of applications received were not eligible under the Measure or were withdrawn by the applicant during the assessment process. Of the total LoOs Issued (£5.8m grant awarded), 12% were later withdrawn or terminated resulting in slippage of over £260k grant commitment. Of the LoOs completed (originally awarded £5.6m) there was further slippage of £434k (8%).

Indicator analysis

7. Measure 3.6, Conservation and Upgrading the Rural Heritage, exceeded its targets for the number of rural heritage supported actions and the total volume of investment. The original Measure allocation was £4m with final expenditure at £5m. There was one strategic project supported with a value of £1.5m. The population target in rural areas benefiting from improved services was also exceeded, however the accuracy of this indicator has previously been discussed.
8. A wide range of projects were taken forward under Measure 3.6. Subsequently, the projects were considered by applicants to have had a wide range of impacts on the economy and/or the rural population. Key impacts included:
 - Improved people's knowledge of and access to the Cluster area's heritage assets;
 - Supported the maintenance of local culture and celebrating same;
 - An audit/mapping of the Cluster's heritage assets;
 - Community-led environmental clean-up and improvement schemes;
 - The restoration of built heritage features;

9. Other more indirect impacts of the activities undertaken under Measure 3.6 were:
 - Awards or other recognition of work undertaken/achievements made possible as a result of NIRD P investment;
 - Increased people's knowledge and use of traditional rural skills;
 - Promoted local rural heritage sites.
10. Measure 3.6, Conservation and upgrading of the rural heritage, reached more than three times the target for number of rural heritage actions supported. The total volume of investment and the population in rural areas benefiting from improved services also exceeded their targets.

Conclusion

11. It is clear that the actions supported under the Measure created opportunities to preserve and upgrade Northern Ireland's rural heritage and to use the natural and built environment as the basis for sustainable economic growth in rural areas. In doing so, it is evident that the projects supported under Measure 3.6 helped to:
 - Encourage rural tourism built on the sustainable development of Northern Ireland's natural resources, cultural and natural heritage; and
 - Maintain, restore and upgrade the natural and built heritage.

How and to what extent has Axis 3 contributed to the economic diversification of the beneficiaries?

1. The NIRD P developed in 2006 and 2007 reflected the existing economic, environment and social challenges at that time. There was a high level of employment, economic growth was consistent and access to credit was readily available. The strategies included ambitious targets which were perceived to be achievable. However the severe economic downturn led to recession, increased unemployment, restrictions on the availability of credit and the significant decrease in consumer confidence and markets.
2. It was against this harsh economic backdrop that the economic diversification Measure, mainly programmed under Measure 3.1 (Diversification into non-agricultural activities) operated. This Measure aimed to assist farm households to diversify into non-agricultural activities and, as a consequence, maintain or increase the income of the farm households and create employment opportunities. Eligible applicants were farm owners or members of a farm family who had written permission to carry out the diversification activities from the farm owner.
3. Measure 3.1 recipients received funding (up to 50% of total project costs and up to a maximum of £50,000 per application) towards the cost of their diversification project. The availability of match funding was a programme prerequisite. The level

required ranged from 25% to 50% dependent on the specific Measure and the type of applicant.

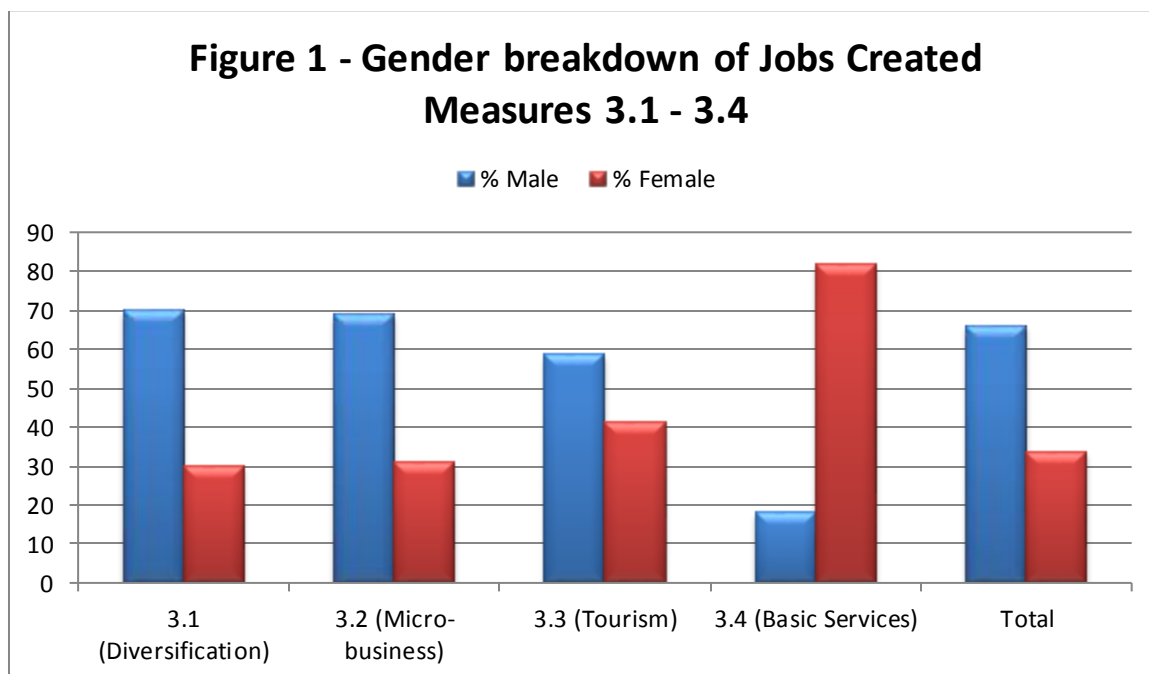
4. The Mid-term evaluation update, published in March 2013²², confirmed that the economic climate had a direct impact on the performance of this Measure and was evidently a barrier. The economic situation remained a challenge through to the end of the Programme. Survey evidence from post project evaluations (PPEs) of individual LAGs provide evidence of this. A survey asked if the ability to access other additional finance had an impact on projects and half the respondents said that finance was a restricting element.
5. The increased difficulty of holding or securing match funding remained the primary concern amongst those consulted in the rural community for the remainder of the programme and clearly negatively affected the contribution of the Axis to diversification. Despite the difficulties, the diversification Measure had a positive impact on the rural area. An investment of approximately €41million was secured. Over six hundred beneficiaries received support for their efforts to diversify into non-agricultural activities across more than ten business categories and over 400 new jobs were created. Over 170 new businesses were supported with funding also allocated over multiple business categories. There was a €4.6m increase in non-agricultural GVA in supported businesses.
6. In direct response to numerous enquiries and requests from farmers about the possibilities of the LAGs supporting renewable energy projects under Measure 3.1, a funding call was organised specifically targeted at farmers or members of farm families who wished to develop renewable energy projects on-farm. LAGs recognised that there was a strong case to support actions that could contribute to the production of green energy and at the same time help to increase farm family incomes through diversification activities. Under the Measure the potential volume of energy generated from NIRDP funded renewable energy projects was 5.3m kilowatt hours per annum.
7. All of these are notable achievements under the diversification Measure, given the challenging context within which the programme was delivered. However the large proportion (70%) of applications that were either rejected or did not proceed provides some indication that the Measure-level eligibility criteria and the assessment process needs to be reconsidered, so that fewer and better quality and 'project ready' applications are received from the outset.
8. Based upon analysis of the reasons recorded by PPEs for applications being withdrawn, terminated or rejected and also from feedback received from applicants, the following may help to reduce the level of administration resource in a future programme:

- Robust and clear guidance should be provided at the time of the application process to advise potential applicants of the requirements of the programme (e.g. to set out clear expectations in terms of eligibility, monitoring, procurement, claims etc.).
 - Potential projects should be managed so that applicants only have to wait a reasonable period of time to hear about the success of their application (perhaps a maximum of 3 months from submission).
 - A continuity of personnel dealing with individual applicants and applications should be maintained.
 - Whilst mindful of the requirement for accountability of programme expenditure, every effort should be made to simplify programme processes including applications, claims and monitoring (and in particular, in a manner that is commensurate with the scale of a project/grant received).
 - Ensure that potential applicants are aware of any supplementary information that would be required to accompany their application, and that this is requested at the same time as submitting the application.
 - Ensure that any necessary pre-conditions are made clear e.g. having any necessary permits or planning permission in place.
9. In conclusion, with high levels of application withdrawals and rejection reflected across all clusters, publicity will continue to be a vital element of any new programme. Critically, it is important to clearly define the requirements for the programme at every stage to ensure that potential applicants fully comprehend the process and time commitment before formal application. Furthermore sufficient resources and time should be dedicated to the developmental and business planning process prior to formal application submission to ensure that only high quality submissions are progressed to assessment.

How and to what extent has Axis 3 contributed to improving the quality of life of beneficiaries?

10. A core principle of the approach to broader rural development in Northern Ireland has been and continued to be, that the communities which most closely experience problems should be involved in the design and delivery of projects and programmes to tackle such problems and improve their quality of life.
11. One of the main reasons Axis 3 contributed to the quality of life of beneficiaries in rural areas was through the creation of jobs. Under Axis 3 a total of 1,194 jobs were created. Figure 1 below shows the gender breakdown of the Jobs created in Measures 3.1 to 3.4.

12. Measures 3.1 and 3.2 accounted for 90% of the total job creation for Axis 3 Measures. The overall gender breakdown of the Axis 3 jobs shows that 66.2% were filled by males and 33.8% were female. This trend was however reversed in Measure 3.4 where 81.8% of the jobs were filled by females and 18.2% by males. This can be attributed to the types of projects supported which under Measure 3.4 included childcare and nursery provision.



13. Although Axis 3 initially incorporated job creation as an important element of improving the quality of life in rural areas and although this remained the objective throughout the programme, the initial ambitious targets were proven unrealistic due to the poor economic climate. Twenty-five per cent of responses in a survey indicated that job creation had become increasingly difficult. As the programme period progressed the focus became more on the retention of jobs. This had been also been reported in the Mid-Term Evaluation completed in 2010. Again, in a survey more than half of respondents reported that funding had an important impact on the maintenance of existing jobs.
14. Axis 3 aimed to improve the quality of life in rural areas by supporting a wide range of projects which primarily fell under Measure 3.4, “Basic services for the economy and rural population” and Measure 3.5, “Village renewal and development”.
15. Measure 3.4 attracted 668 applications resulting in 228 supported actions. Of particular note is the significant number (147) of projects benefiting children and young people in the rural community. Some of the key impacts under the Measure included, improving facilities and services for those with disabilities, providing community facilities, improving or introducing new recreational facilities, improving childcare provision/children’s play areas. It also addressed core issues of transport, fuel poverty and utility/infrastructure provision. The population estimated to have benefitted from improved facilities and services under this Measure is 274,711,

representing 41% of the rural population⁴⁹, although it has been acknowledged that the measurement of this indicator may not have been consistently applied.

16. Also through the basic services Measure, DARD invested £6.5m in improving access to broadband for rural premises. The Next Generation and the NI Broadband Improvement (NIBIP) projects were delivered on the ground by DETI. By the end of December 2015 the total numbers of premises with access to improved broadband services were reported as 17,094 under Next Generation and 17,230 under NI Broadband Improvement (NIBIP).
17. The significance and use of the internet in relation to education, business and even service delivery continues to grow at an exponential rate. Having access to high speed, reliable and affordable internet contributes to improving the quality of life of beneficiaries by enabling rural people to learn, trade and avail of services in the same way as their urban neighbours.
18. The objective of Measure 3.5 was to enable and encourage residents of villages and surrounding areas to create a vision and an integrated action plan to ensure the full potential of such areas is achieved. The Measure also aimed to support integrated village initiatives which promote cross-community development and regeneration.
19. The types of activities or projects which could be supported under the Measure were ones that could increase the attractiveness of the town or village as a local commercial and social centre, and increase its sustainability as a place in which to live and work. Projects that would enhance village environment and amenity in the interests of residents were also supported. All of these initiatives contributed to enhancing the quality of life of beneficiaries.
20. Measure 3.5 attracted 363 applications resulting in 228 supported village actions. Actions under the Measure included physical, economic, environmental and social improvements. The population estimated to have benefitted under this Measure is 232,485, representing 35% of the rural population⁴⁹. Northern Ireland's towns and villages are the heart of the rural communities, and the economic downturn had a significant impact on many of these towns and villages. The renewal schemes helped villages become areas where economic activity could flourish, where people could live and work, and where people could meet at a social level.
21. In conclusion the quality of life Measures delivered notable achievements, given the challenging context within which the programme was delivered. That said, the large proportion of applications that were either rejected or did not proceed provides

⁴⁹ DAERA Mid-Year estimates population change. N.B. 2001 and 2011 figures are estimated from the Census and estimates of urban/rural population change are based on the 2005 NISRA settlement classification. Some towns and villages may have grown beyond their boundaries in recent years and areas previously classified as rural may now be urban.

some indication, that the Measure-level eligibility criteria and the assessment process needs to be reconsidered, so that fewer and better quality, more 'project ready' applications are received from the outset.

To what extent has Axis 3 enhanced beneficiaries' capacities to improve economic diversification and quality of life in rural areas?

22. Depending upon the Measure from which the recipient applied for funding, the types of impacts that beneficiaries achieved differed substantially. However the majority of beneficiaries' capacities to either improve economic diversification and/or quality of life in rural areas increased under all of the Axis 3 Measures.
23. According to PPE survey data, across all Measures, most beneficiaries reported achieving benefits as a result of their NIRDP project. The majority of Measure 3.1 and 3.2 recipients experienced positive business impacts, including increases in their business' turnover, the creation of jobs for individuals other than the business owner and help to sustain pre-existing employment within the business. All of the Measure 3.3 recipients surveyed indicated that their business or project experienced positive impacts, including increases in visitor numbers, increases in turnover and help to sustain pre-existing employment.
24. A wide range of projects were taken forward under Measure 3.4 and 3.5 which had a wide range of impacts on the economy and/or the rural population. Key impacts included improved facilities and services for those with disabilities, increased levels of physical activity, improved or new recreational facilities and improved young people's mental health. Measure 3.5 focused on the physical, economic, social and environmental improvements to the villages.
25. Key impacts of Measure 3.6 included improvement of knowledge of and access to the LAG's heritage assets, support for the maintenance and celebration of local culture, community-led environmental clean-up and improvement schemes and the restoration of built heritage features. All of these benefits and improvements will have enhanced beneficiaries' capacities to improve economic diversification and quality of life in rural areas.
26. A key feature of Axis 3 was the development of close working relationships with relevant Government Departments and Agencies, including DARD, Invest NI, Rural Tourism Partnerships and other relevant organisations operating in rural areas. These relationships were vital in ensuring an integrated approach to local development delivery and avoiding overlap and duplication of resources, particularly for grant aid for projects.

27. Measure 3.4, in particular, built on the already extensive consultation and communication practices existing across district councils. It enabled considerable capacity building within communities to develop plans to improve their communities and villages and enabled these communities to take steps to reach their full potential.
28. A high level of expertise and knowledge has now been established within the Local Action Groups, community and social enterprise groups and individuals who have participated in the programme. The lessons learnt can only strengthen and enhance the implementation of similar programmes in the future and enhance capacities to improve economic diversification and quality of life in rural areas.

What other effects, including those related to other objectives/axes, are linked to the implementation of Axis 3 (indirect, positive/negative effects on beneficiaries, non-beneficiaries, local level)?

29. Diversification helps resilience and supports faster growth than in situations where there is overdependence on mainstream farming. The support for upgrading heritage and village renewal also enhances the fixed infrastructure in which diversification can take place. The rationale is identical to that for the farm sector, except it extends more widely to providing infrastructure for the whole rural economy. Therefore the provision of basic services in rural areas and the conservation and upgrading of rural heritage can be seen not only as a means to support a better quality of life but also as investments to support economic development.
30. Set in the context of EU policy which identifies the need to develop the renewable energy sector and the need to sustain the agri-food sector as identified by DARD, it was recognised that there was a very sound case to support actions that can contribute to the production of green energy. At the same time this helped to increase farm family incomes through diversification activities and therefore helping to achieve Axis 2 objectives.
31. In the early stages of implementation it was agreed that applications for the installation of a wide range of equipment including wind turbines, water turbines, solar panels and biomass boilers to generate renewable energy could be accepted. The results were particularly successful under the diversification into non-agricultural activities where the majority of applications for assistance to install renewable energy technology were submitted. Across the programme the target for the generation of renewable energy was surpassed with 5,632,052 Kwh per annum recorded as achieved by the end of the period.

32. Under basic services, 335 people successfully completed bespoke training initiatives through six of the projects supported including 133 young people undertaking a youth life, growing through change programme. Outcomes under this Measure complemented outcomes linked to Measure 1.1.
33. Measure 3.4 invested £1.5m in the Department of Enterprise, Trade and Investment's project to provide next generation broadband services to 85% of businesses by 2012. The Axis 3/4 grant funded fibre upgrades to 204 cabinets across rural Northern Ireland. While figures on the number of connections to each cabinet are not recorded, the Axis 3 investment ensured that 17,094 rural businesses and rural dwellers now have a connection to improved Broadband services. It is recognised that a significant number of private telephone line holders are farm businesses.
34. A further £5m was invested in the delivery of broadband infrastructure through the Department of Enterprise Trade and Investment's Broadband Improvement project. The main objective of this additional investment was to ensure access to broadband for rural businesses and premises located in areas with no or very poor broadband service. By the end of the period, access to broadband service had been installed in 2,135 of the post code areas targeted resulting in the availability of broadband service to 17,230 rural premises. Outcomes under the investment in broadband complemented outcomes across the programme.

Measure 4.2 – Inter-territorial and Transnational Co-operation.

Background

1. When preparing the local development strategies LAGs were encouraged to identify issues or sectors which could benefit from interterritorial or transnational co-operation. Interterritorial co-operation was defined as cooperation within the UK, while transnational co-operation was defined as co-operation with another Member State.
2. To be eligible for support, co-operation had to involve at least one LAG selected under the NIRDP and at least one other LAG or public-private partnership and it should result in a joint action.
3. The approved programme specified that LAGs would provide support for the following activities.
 - Grant aid towards capital and resource costs of the joint action.
 - Running costs for common structures established as part of the joint action.
 - Costs of predevelopment for the preparation of co-operation projects.
4. The Rural Network Support Unit had a key role in supporting Local Action Groups to develop co-operation opportunities through:
 - promotion and circulation of the partner search facility,
 - facilitating the Northern Ireland co-operation working group with membership across the seven Cluster areas, and
 - the co-ordination of networking activities with the UK, Ireland and European Networks.

Outcome and Evaluation

5. The following table provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 4.2)

	Indicator	Position Reported 2015	Target 2007-2013
Output	Number of supported co-operation projects:	15*	3
	Number of co-operating LAGs:	18	7
Result	Gross number of jobs created:	0	0

*Reported as 15 due to the projects across Measures, however there are only 7 NI LAGS.

6. Including the proposed support from the Rural Network Support Unit, the Managing Authority also provided a staff resource with experience of cross-border co-operation to provide support to the LAGs to assist the development of practical, projects from local ideas and opportunities. Despite the level of support provided to the LAGs to assist with the identification of partners and development of co-operation project proposals, commitment achieved was low at £374k. By the end of the Programme, over £307k had been drawn down for co-operation pre-development and implementation projects.
7. In June 2011 the Managing Authority increased the rate of grant aid for the pre-development phase of co-operation projects to 100%. This was in recognition that LAGs had reported difficulty in raising the necessary match funding for the initial pre-development phase of co-operation projects. This was having an impact on the quantity and quality of applications being proposed.
8. Due to the delays in setting up the LAGs and the opening of the Axis 3 schemes there had also been a delay in implementing the cooperation Measure. A modification was subsequently made to the NIRDP in 2014 reducing the funding available for co-operation. This change was accepted by the Programme Monitoring Committee on the understanding that cooperation could be implemented earlier in the 2014-2020 NIRDP. The lack of cooperation activities within the NIRDP was also reflected in the level of expenditure on this core function by the Rural Network Support Unit.
9. Feedback from LAGs indicates that the key challenges and issues encountered whilst trying to develop cooperation activity included:
 - The development of such activity is time-consuming and requires dedicated resource, and is unlikely to be developed using only the voluntary input of LAG members;
 - Such projects, by their nature, require a long lead-in time.
10. In recognition of the difficulties that clusters had been experiencing, DARD allowed the 5% co-operation budget to be transferred/re-allocated to Measure budgets (with the exception of Measure 3.1). Such transfers/re-allocation had to be formally submitted to DARD via a Change Control Form which detailed the amount(s) to be transferred/re-allocated, the activity and a supporting rationale.

Conclusion

11. It is likely that the potential for co-operation activity was promoted too late in many of the LAG areas and that both the LAGs and DARD took too long to put adequate resource into co-operation. Such activity requires time to develop trust amongst prospective partners. In the future key LAG members should be instrumental in driving co-operation activities forward at an earlier stage of the programme. They should clearly identify the needs that would be best taken forward in co-operation

with other regions and ensure these are clearly identified in the Local Development Strategy.

Measure 4.3 – Running Costs, Acquisition of Skills and Animation.

Background

1. This Measure provided administration running costs incurred by the seven Joint Council Committees (JCCs), contracted by DARD to implement the Axis 3 and 4 Measures in partnership with their appointed Local Action groups (LAGS). The administration service was delivered for the JCCs and LAGs under a Service Level Agreement with the agreed lead Administration Council for the Cluster area. The JCC was required to provide staff with the necessary skills and experience to provide the administration necessary for the efficient and effective delivery of the programme Measures.
2. LAGs were required to ensure that running costs were closely monitored and did not exceed 20% of the overall strategy expenditure. Running the local action group, acquiring skills and animating the territory as referred to in article 59 (Article 63 (c) of Reg. (EC) N° 1698/2005) was not included in the approved programme.

Outcome and Evaluation

3. The following table provides details of the targets agreed within the Common Monitoring and Evaluation Framework for the Measure and the Final Position reported to the European Commission up until the end of 2015.

Table 1 - Indicative quantified targets for EU common indicators (Measure 4.3)

	Indicator	Position Reported 2015	Target 2007-2013
Output	Number of actions supported:	7*	150
Result	Number of participants that successfully ended a training activity	1,243	500

* 7 LAGs – no record of Number of actions supported

4. A total of 1,243 people receiving training across 11 main training/information areas - 954 of these were JCC, LAG or Council administration unit members completing a range of 10 different training courses as relevant to their role within Programme Implementation. The other 289 were Council administration unit staff completing EU applications database training as relevant to their role.

Table 2 – Project and Administration spend by LAG

Cluster	Original allocation	Project Spend (£)	Administration Spend (£)	% Administration
ARC	18,484,112	16,122,241	2,825,411	15.3%
DRAP	13,498,066	10,589,599	1,926,607	14.3%
GROW	8,890,899	7,076,179	1,281,299	14.4%
LRP	8,691,556	7,282,878	1,454,851	16.7%
NER	13,181,300	11,077,882	2,010,997	15.3%
SOAR	16,731,839	13,990,936	2,636,622	15.8%
SWARD	20,522,227	17,210,902	3,159,718	15.4%
Total	99,999,999	83,350,616	15,295,506	15.3%

5. Table 2 shows that the running costs for all LAGs were well below the allowable 20%. Concern had been raised in the first half of the programme about the high cost of administration. However as administration was calculated as a percentage of the project cost it was accepted that set up and running costs would require early spend and that in the latter half of the programme the proportion of project spend would increase significantly.
6. As previously discussed there were a high number of speculative applications under Axis 3. All of these applications had to be processed and this resulted in a considerable administrative overhead, clogged up the system and slowed down application processing times. Eligibility and schemes requirements were in some cases misunderstood. With exceptionally high dropout rates there was clear evidence that confusion around eligibility was also partly responsible for the high level of speculative application which took place under Axis 3.
7. In addition to the number of direct jobs resulting from the Axis 3 supported projects, the LAGs employed a number of administrative support workers such as LAG managers, finance, project and communication officers (Table 3). Many of these jobs were in place for the whole duration of the programme (5-7 years) and would have provided good quality professional jobs within the rural areas.

Table 3 – Number of Administration Jobs by Local Action Group

Cluster	Number of Indirect Jobs
ARC	26
DRAP	16
GROW	10
LRP	9
NER	12
SOAR	24
SWARD	28
Total	125

Conclusion

8. Given the large number of unsuccessful applications, more robust eligibility criteria should have been issued and an application process implemented that placed greater demand on the applicant to be more project ready alongside the calls for applications. Whilst it is recognised that some lessons were adopted during the implementation of the programme (e.g. such as the requirement to have planning permission in place), the analysis of the reasons recorded for applications being rejected/terminated/withdrawn indicates that more consideration to animation was required.

To what extent has the NIRDP contributed to building local capacities for employment and diversification through LEADER? (Community strategic priority)

1. All £100m of the funding through Axis 3 was to be delivered through the LEADER approach at community level with local action groups (LAGs) developing tailored strategies and programmes for their area.
2. The Review of LEADER states that, since 1991, the approach has delivered a range of economic and social impacts, including building local capacity for employment and diversification. These include:

- Training / advice / employment programmes and improved labour market access;
 - Diversifying sources of farm income;
 - Tourism – support for tourist attractions and creation of tourist beds capacity;
 - Job creation and maintenance;
 - Business creation and maintenance;
 - Buildings restored and used by trading businesses;
 - Leverage of investment into rural regeneration;
 - Building capacity and confidence in rural communities;
 - Improving quality of life / addressing social issues;
 - Skewing resources to individuals, groups and areas as being in greatest need;
 - Creating local synergies;
 - Improving skills and the capacity of project promoters in accessing EU funds;
 - Networking and information sharing.
3. Alongside the benefits realised in the local areas the LEADER approach also required the employment of local people in the administration of the Axis 3 funding. There were a total of 125 Administration jobs created by the LAGs and by their very nature these posts lead to greater understanding and awareness of local issues. Additional to this, 1,243 individuals successfully completed a training activity related to their roles in programme implementation enabling them to increase effectiveness in tackling the needs identified in the area-based strategies.
4. The area-based strategies were based on clearly defined local needs, tailored to tackle local issues and address shortfalls or problems. The approach enabled and encouraged residents of villages and surrounding areas to create visions and integrated action plans to try to ensure the full potential of their areas were achieved. Local people were involved in the decision making process. The partnership ethos which was central to the success of rural regeneration would continue to be developed and this approach would also support cross-community participation.
5. The analysis of Measure 3.1 Diversification discussed earlier indicates that the Measure had a positive impact on strengthening the social and economic infrastructure of rural areas and creating employment opportunities and conditions for the creation and development of rural micro businesses. Other Measures aimed to support integrated village initiatives which promoted cross-community development and regeneration; create opportunities to preserve and upgrade the rural heritage and to use the natural and built environment as the basis for sustainable economic growth in rural areas.

6. One Measure aimed to encourage and secure the provision of next generation broadband services to rural businesses in areas of Northern Ireland in which these services were not available or were unlikely to be available in the foreseeable future. By providing business and financial support, the programme has worked to improve ICT capacity, (through the broadband investment), encourage entrepreneurialism, and expand business products and networks.
7. The Measures also encouraged the development of innovative projects and private sector involvement has led to enhanced economic growth and job creation.
8. Capacity building has also come through making best use of and building on the expertise and experience gained from using the LEADER approach for earlier programmes. A high level of expertise and knowledge has been established within the Local Action Groups, community and social enterprise groups and individuals who have participated in the programmes. The lessons learnt can only strengthen and enhance the implementation of similar programmes in the future.
9. In conclusion, although there were problems encountered with the LEADER approach, which are discussed in other sections of the report, it did have a high degree of success given the challenging climate in which it operated.

To what extent have LAGs contributed to achieving the objectives of the local strategy and the NIRDP?

10. The number of LAGs has varied from one LEADER initiative to another:
 - LEADER II : 15 Local Action Groups (LAGs) and 9 Other Collective Bodies (OCBs);
 - LEADER+ : 12 LAGs;
 - LEADER 2007-2013 : 7 LAGs.
11. In the 2007-2013 programming period, the number of LAGs was established to mirror the proposed RPA Council structure which did not ultimately proceed. Each LAG was required to develop a strategy setting out their plans for delivery of Axis 3 Measures in their areas using LEADER. These strategies were informed by national policy objectives as set out in the overall NIRDP programme document.
12. Evidence from the MTE and from consultation with the JCCs and LAGs highlighted the importance of the bottom-up approach in delivering Axis 3 and the benefits of involving local people in addressing local needs.
13. In terms of added value to rural development, the key areas in which evidence has been found include:
 - Access to local knowledge and experience in membership of LAG.

- Leverage of voluntary Inputs – the valuable investment of the LAG members in providing their time, expertise and local knowledge on a voluntary basis.
 - Building relationships – this applies in particular to the LAG members – building relationships between the public, private and voluntary/community sector and also between partner Councils. The MTE of the NIRDP noted that: “the LEADER approach has enabled a multi-sectoral approach and has facilitated good levels of co-operation.
 - The structure adopted brought local government involvement directly to the Programme, while the LAG members provided a wealth of knowledge from their respective backgrounds.
 - In a survey of project promoters, the majority of respondents (65.1%) stated that without the funding they probably (34.9%) or definitely (30.2%) would not have gone ahead with the project. However, the remainder (34.9%) would have been able to go ahead with the project over a longer timescale and/or on a smaller scale. Thus LEADER has enabled many projects to go ahead that otherwise would not.
14. However as previously discussed, at the outset, the Local Development Strategies were intended to be “living” documents informing decision making and how funding would be used. Evidence from some PPEs was that LAGs did not always have the opportunity to take ownership of the strategies and that they may not have been revisited / updated to reflect evolving local needs and priorities. In addition, there is a widespread view that the three tier structure hindered rather than helped in terms of the effectiveness of delivery and also that the process did not allow for a “true” implementation of LEADER as the level of control and bureaucracy detracted from this.
15. The changing the structure and composition of LAGS may also have lead to a loss of capacity and experience built up in previous programmes and heavier reliance on DARD may have frustrated the LAGs’ ability to act from a truly ‘bottom up’ perspective.
16. In terms of suitable Measures for the 2014-2020 NIRDP, Consultees expressed a range of views on future support for rural areas.
- There was little appetite from the LAGs to “give up” any of the Measures they delivered in the 2007-13 programming period.
 - An alternative approach would be to keep the LAGs delivering the same types of Measures but with a focus on small scale, local projects with DARD also delivering under the same Measures but on larger scale strategic projects.
 - Some Measures were felt to have a good fit with local government and could therefore be best delivered “in-house” by Councils (e.g. Village renewal).
 - The “one size fits all” approach offering the same process for different types of grants to different target groups (from farmers to voluntary / community groups) was not favoured by all.

- There was also a view that different skills/approaches are required to work with private sector and community/voluntary sector applicants.

To what extent has the LEADER approach been implemented?

17. Approximately 19% of the Programme budget was delivered through the LEADER 'bottom-up' approach. The structures and delivery mechanisms for the delivery of Axis 3 of the NIRDP through LEADER provided for local communities to develop and implement integrated rural development strategies (through 7 LAGs). The preparation of local strategies by each LAG provided a means to link local need with national strategy objectives. Each group had to develop a strategy which was approved by DARD. These were scored against various criteria including assessment of need and strategic fit – hence linking local actions and national strategy objectives.
18. At the local level, the programme was strategically delivered by Joint Council Committees (JCC) representing Councils and implemented by Local Action Groups (LAG) comprised of local Councillors and Social Partner representatives. Together the JCC and LAG were responsible for administering the funding in local areas.
19. Therefore, LEADER was effective in providing a mechanism to empower local communities to address local problems in line with national strategy objectives. The LEADER methodology enabled local communities to develop and implement integrated rural development strategies in response to local needs. The "bottom-up" approach provided the means by which local communities have been empowered to address local problems.
20. In practice however there were some issues around implementation which may have detracted from effectiveness. For example not all LAG representatives were in place when the strategies were developed. Furthermore, the strategies needed to be kept up to date, continuing to reflect local needs and priorities and this was not always the case. They needed to be revisited or updated to take into account changes in the wider environment.
21. Therefore in order to enhance effectiveness in this regard, it would be important to build in such a review in any future programmes so that the strategy is a "live" document. The MTE of NIRDP made a recommendation that strategies should be reviewed. The issue of strategies not having been revisited and hence becoming "out of date" was also identified in recent consultation. Furthermore in terms of delivering national policy objectives identified in local development strategies, in practice calls for applications were opened across all Measures simultaneously and did not target or focus on either sectoral or geographic opportunities specific to the LAG and its strategy.

22. The economic downturn meant that management bodies within the LAGs had to revise the targets within the programme to more accurately reflect the new economic environment. A positive element of the programme was the ability of local authorities to request approval of adjustments from DARD through the 'change control' process. These requests reflected the position in relation to implementation of the programme at a local level and allowed LAGs to amend targets, priorities and funding within and across Measures.
23. The LEADER approach successfully made use of local and regional knowledge, local community networks, and grass roots organisations to facilitate Programme delivery. It facilitated wide participation and engagement in rural development. The approach increased local confidence resulting from local participation and consultations. It promoted a sense of independence 'on the ground' from the availability of an accessible local funding source. There was evidence of voluntary inputs being leveraged which helped offset the high overheads associated with the LEADER delivery format. The approach also led to enhanced relationships between private, voluntary, community and statutory sectors.
24. Although there is evidence of these benefits occurring, the main focus for LAGs had been on assessing applications and increasing spend. Previous sections have detailed the high drop-out rates under each of the Axis 3 Measures. Any future approach should seek to maintain a balance between the processing of applications function and the ongoing need to keep local stakeholders involved in identifying needs and supporting delivery.

To what extent has the implementation of the LEADER approach contributed to improving local governance? (Community strategic priority)

25. Local government has had a role to play in all the LEADER programmes including Councilors having a role on the LAG (LEADER II, LEADER+ and in the current 2007-2013 programming period) or more recently Councils having responsibility for the delivery of the programme (contracting with DARD) as the JCC.
26. Under the 2007-2013 NIRPD training was provided to all JCC and LAG members with the specific aim of improving local governance in the region. 954 JCC, LAG or Council admin unit members completed a range of 10 different training courses as relevant to their role within Programme Implementation. A further 289 Council administration unit staff completed EU applications database training as relevant to their role. A total of 1,243 people received training across 11 main training/information areas.

Table 1 – Number of JCC, LAGs and administration staff by type of training

Training	Number	Percentage %
Database	289	23
Assessment Panel	263	21
Corporate Governance	257	21
Public Accountability	122	10
Economic Appraisal	80	6
Managing Appeals	66	5
Fraud Awareness	64	5
Article 26	45	4
Effective Assessment	25	2
State Aid	23	2
Promoting Programme	9	1
Total	1243	100

6.2 Programme-related Common Evaluation Questions

The following section addresses the Programme-Specific Evaluation Questions (PSEQs) (Annex B) which are additional to the Common Evaluation Questions and were formulated by the European Commission and the Managing Authority for the evaluation of specific elements within the NIRDP.

To what extent has the NIRDP contributed to the growth of the whole rural economy?

1. The European debt crisis has provided a major obstacle to both growth in the Northern Ireland economy and implementation of the programme between 2007 and 2015.
2. The latest GVA figures for Northern Ireland show that at current prices the economy grew by 8.7% between 2007 and 2014. However, in real terms the Northern Ireland Composite Economic Index shows that in quarter three of 2015 the Northern Ireland economy was performing at 8.3% below its quarter four 2006 peak and 2.9% above the minimum level set in quarter three 2012. The housing sector has been the hardest hit with the standardised house price in quarter four 2015 standing at just over half the peak value set in quarter three 2007.
3. The agri-food sector is a significant sector in the Northern Ireland rural economy and recent figures show that in real terms it experienced growth in GVA by 19.6% from £944m in 2007 to £1,129m in 2014. The NIRDP contributed to growth in this sector through actions taken under Axis 1 of the programme. Measurable contributions to the growth came from a £17.2m increase in GVA for 50 projects completed with support from the Processing and Marketing Grant (PMG) scheme (Measure 1.2) and £1.8m increase in GVA from Supply Chain Development Programme (Measure 1.4) supported projects. Both these schemes focused on more efficient processing of existing agricultural products, increasing agri-food output and bringing new agricultural products to the market. Actions taken under Measure 1.1 (Vocational Training and Information Actions) and Measure 1.3 (Modernisation of Agricultural Holdings) contributed to growth in the agri-food sector by supporting farmers to implement efficiency savings and increase their farming outputs.
4. The total number of VAT registered businesses in rural areas (accessible and less accessible) declined by 5.5% from 52,465 in 2007 to 50,075 in 2015⁵⁰. In real terms the construction sector (14% of registered rural businesses) declined by 35.3% between Quarter 1 (2007) and Quarter 4 (2015)⁵¹. The production sector (7% of

⁵⁰ Northern Ireland Inter Departmental Business Register (January 2016) Department of the Economy

⁵¹ NI Construction Bulletin (Quarter 2 - 2016) Department of Economy

registered rural businesses) grew by 4.1%⁵² over the same period. The service sector declined by eight per cent over the period including a 6.7% fall in wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service activities (accounting for 21% of registered rural businesses)⁵³. These indicators show with the exception of the production sector the wider rural economy shrunk over the course of the programme.

5. The NIRDP made contributions to the wider rural economy through diversification support provided under Axis 3. Measure 3.1 Diversification into non-agricultural activities contributed £3.4m in GVA to the rural economy, while Measure 3.2 (Business creation and development) contributed £8.3m in GVA. Sectors to particularly benefit from support under these Measures were manufacturing, services, renewable energy, tourism/agri-tourism and leisure/fitness. There was £22.3m spent on encouragement of tourism activities under Measure 3.3 but no GVA was captured as the activities supported mainly contributed to improving tourist infrastructure. In total there were 251 tourist actions supported under Measure 3.3 that brought an additional 1.5m visitors to rural areas. This support made a contribution to an increase in rural tourist expenditure of 20.2% from £351.14m to £422.08m between 2011 and 2014⁵⁴. Investments under Measure 3.4, 3.5 and 3.6 contributed to creating the conditions for growth of the rural economy through investments in infrastructure, rural regeneration and basic services to create sustainable rural communities.
6. The administration of the programme contributed to the rural economy by employing private service sector companies to support programme delivery and creating employment opportunities for delivery agents and mentors. The multiplier effect of the programme investments benefitted the retail and manufacturing sectors in rural areas through the purchase of plant machinery, farm modernisation machinery and equipment required for undertaking projects. The construction sector benefitted from building work investments in processing plants, infrastructure, public services, agri-environment projects, rural regeneration and upgrading of rural heritage projects.
7. The number of jobs based in rural areas decreased by 3.6% from 382,479 to 368,896 between September 2007 and September 2013⁵⁵ (excluding agriculture) compared to a fall of 1.7% in urban areas. The NIRDP made a small contribution to off-setting some of these job losses by creating 448 new jobs under Measure 1.2 and 1,194 new jobs under Axis 3.

⁵² NI Index of Production (Quarter 2 – 2016) Department of the Economy

⁵³ NI Index of Services (Quarter 2 – 2016) Department of the Economy

⁵⁴ Tourism Urban-Rural Statistics (November 2014) Department of Agriculture and Rural Development

⁵⁵ Census of Employment (July 2014) Department of the Economy. Figures by accessible and less accessible LGD discontinued in 2014 following changes to Local Government Districts.

8. The total agricultural labour force has been in long term decline having fallen from 56,300 persons in June 2001 to 46,800 persons in June 2011.⁵⁶ In June 2015 the agricultural labour force increased marginally for the fourth consecutive year to stand at 48,000 persons but still stands at two per cent lower than 49,000 in June 2007.⁵⁶ Self employment in the agriculture, forestry and fishing sector has also fallen between June 2007 and June 2015 by 2.3% from 17,300 to 16,900⁵⁷. Support offered under Axis 2 Less Favoured Area Compensatory Allowance Scheme (Measure 2.1) in particular has played an important role in stabilising the decline in the number of farmers and the agriculture labour force by paying £155m over the course of the programme to 13,411 farmers (average number per annum) to maintain their land for farming.
9. Between 2007 and 2015 the average farm business income has increased by 28.3% from £19,400 to £24,900⁵⁸. This compares to an increase in median earnings for Northern Ireland employees (full-time and part-time) of 18.5% from £17,171 to £20,348⁵⁹ over the same period. This increase in farm business income can partly be attributed to programme support under Axis 1 providing support to make efficiency savings and increase outputs and support under Axis 2 providing subsidies for farmers to commit to environmental farming practices. However, farm incomes are determined by many other factors including other CAP subsidies, cost prices and output prices.
10. There has been a long term tendency for people to live in the rural areas of Northern Ireland and travel to work in urban areas where salaries are higher. The most recent figures for the comparison of median earnings by rural and urban areas show that earnings increased by 0.5% for employees with a rural work address between 2011 and 2015.⁶⁰ This compares to a 9.4% increase over the same period for those with an urban work address. The average annual median wage for those with a rural work address was £16,117 compared to £18,596 for those with an urban address in 2014. Therefore, employees in rural areas earned 13.3% less than those in urban areas in 2014 and this gap has widened from 5.9% in 2011. Therefore the programme has had no impact on increasing wages in rural areas and making rural areas attractive places to work.
11. Rural areas still remain attractive places to live illustrated by a 15% increase in the rural population between the 2001 and 2011 compared to a four per cent increase in urban areas.⁴⁸ This is supported by findings from the Northern Ireland Personal Wellbeing Survey 2014/2015 that show on a scale, where one is lowest and ten is

⁵⁶ Agricultural Census in Northern Ireland (2015) Department of Agriculture, Environment and Rural Affairs

⁵⁷ Northern Ireland Quarterly Employment Survey Supplementary tables (September 2016) Department of the Economy

⁵⁸ Statistical review of Northern Ireland Agriculture (2008 and 2015) Department of Agriculture, Environment and Rural Affairs

⁵⁹ Northern Ireland Annual Survey of Hours and Earnings (2015) Department of the Economy

⁶⁰ Northern Ireland Annual Survey of Hours and Earnings Urban-Rural Statistics (November 2014) Department for Economy for DAERA

the highest, the proportion of people who rate their life satisfaction between seven and ten in rural areas is 87% compared to 82% in urban areas. People are also happier in rural areas with 82% rating their happiness as between seven and ten on the satisfaction scale compared to 77 per cent in urban areas. Median earnings are also higher for employees with a rural home address. The average annual median wage has increased by 6.1% for employees with a rural home address from £18,084 to £19,194 between 2011 and 2014. Employees with an urban home address saw their salaries increase by 8.7% from £16,912 to £18,388 over the same period narrowing the pay gap from 6.5% to 4.2% in 2014.

12. Actions taken under Axis 2 and Axis 3 have contributed to making rural areas attractive places to live and increasing the rural population by investing in improving the countryside, retaining farming of the land, infrastructure, regeneration, services, diversification and rural heritage. By helping to grow the rural population this will have an impact on the rural economy by supporting the rural business community.
13. All the above evidence shows that the NIRDP 2007-2013 has been operating during a turbulent economic period with a deep recession occurring between 2007 and 2012. There has been an economic recovery since 2012 but most economic sectors are still performing at levels below their peaks set in 2006/2007. The rural economy has experienced mixed fortunes with growth occurring in the agri-food sector over the course of the programme while the wider rural economy has seen economic activity constrained by the global recession.
14. In total there was €570m invested in the Northern Ireland rural economy through the NIRDP from both EAFRD funds and national funds and the programme made a measurable contribution to the rural economy's Gross Value Added of £30.7m per annum. With just under half of the PMG scheme's post project evaluations completed this contribution is expected to increase by the end of the programme cycle. The evidence from the programme's evaluation also shows that:
 - Axis 1 contributed to growth in the agri-food sector by providing farmers and producers with almost £38m of support to make efficiency savings and to increase their output in order to make them more competitive.
 - Axis 2 provided farmers with subsidies of just over £357m that helped them maintain farming on their land and retain their farm incomes while adjusting to increasing environmental regulatory requirements.
 - Axis 3/4 provided farmers, entrepreneurs and local communities with almost £106m to support diversification of the rural economy away from agriculture and to develop infrastructure/services to promote the growth of the whole rural economy.

- All the Axis interventions contributed to the whole rural economy through the multiplier effect of these investments.

15. In conclusion, the evidence shows that there has been little or no growth in the whole rural economy for a contribution to have been made by the NIRDP. However, it's the evaluators' conclusion that had the NIRDP not been in place the impact of the global recession would have been much more severe in rural areas of Northern Ireland and that the programme assisted the rural population to overcome a period of great economic difficulty.

To what extent has the NIRDP contributed to employment creation?

16. Although responsibility for job creation in Northern Ireland fell under the remit of the Department for Enterprise, Trade and Investment (DETI) the NIRDP included targets for job creation within the Axis 3 Measures of the 2007-2013 programme.

17. The table below details the targets and the outcomes for the gross number of jobs created.

	Measure	Target	Outcome
3.1	Diversification into non-agricultural activities	600	404
3.2	Business creation and development	500	676
3.3	Encouragement of tourism activities	50	46
3.4	Basic services for the economy and rural population	10	66
3.5	Village renewal and development	10	2
3.6	Conservation and upgrading of the rural heritage	0	0
	Total	1170	1194

18. Although it is clear that overall Axis 3 created more jobs than the targets laid down at the beginning of the programme, the Framework for the DARD LEADER Programme 2014-2020 carried out by the Strategic Investment Board notes that the percentage of funds spent by the LAGs on job creation Measures was lower than forecast in their Rural Development Strategies. This has been attributed to the effects of the recession and the diversion of funding towards the strategic projects

under Measures 3.3, 3.4, 3.5 and 3.6 which were the more socially orientated projects.

19. The PPE's carried out on the completed projects also point to an increased focus on supporting projects in order to safeguard jobs, rather than on job creation. This view was also supported in the Programme Mid Term Evaluation. Again the changing economic climate is expected to have had an influence on this. Added to this there were issues around the definition of jobs created with the promoter being counted for business start-ups under LEADER which was not the case under other government department rules.
20. The Framework document also notes that DARD had not considered the projected capital or total grant cost per job created when assessing applications although the subsequent costs per gross job created in Measures 3.1 and 3.2 combined was £29,508 (M 3.1 £51,473 and M 3.2 £18,074). Additionally quality of jobs created and possible displacement potential outside of the LAG area were not considered but nevertheless, it is clear that Axis 3 achieved the targets for job creation within the 2007-2013 NIRDP.
21. In addition to the number of direct jobs resulting from the Axis 3 supported projects, the LAGs employed 125 administrative support workers such as LAG managers, finance, project and communication officers and many of these jobs would have been for the duration of the programme.
22. Although there were no other targets for job creation within the NIRDP the February 2016 Evaluation of 38 completed projects under Measure 1.2 the Processing and Marketing Grant Scheme recorded that the scheme resulted in the creation of 448 full time equivalent jobs.
23. In summary, therefore, and although there are differences in the definitions the NIRDP 2007-2013 contributed to the creation of at least 1,743 jobs.

To what extent has the NIRDP contributed to protect and enhance natural resources and landscape including Biodiversity, HNV farming and forestry?

24. The NIRDP 2007-2013 contributed to protecting and enhancing natural resources and landscape including biodiversity, HNV farming and forestry mainly through Axis 2 interventions. Measure 2.1 (Less Favoured Area Compensatory Allowance Scheme) supported on average 520,237 ha per annum or 54% of Northern Ireland's grass and rough grazing land under five year environmental farming contracts that maintained grazing stock (sheep and cattle) on land that otherwise may have been abandoned. This prevented a dramatic decline in grazing stock levels, a reduction in growth of sensitive plant species, the spread of aggressive

species such as bracken, the build-up of soil acidity from under grazing and a reduction in invertebrates and nesting birds.

25. Measure 2.2 Agri-Environment Programme supported on average 433,647 ha per annum of agricultural land under seven year environmental management agreements and 3,782 ha under five year organic farming management agreements. Therefore, 43% of Northern Ireland's total agricultural land on average was under management agreements that outcome monitoring shows;
- increased or maintained the numbers of the targeted bird species on land under agreement with the exception of lapwing;
 - increased the area of type 1 HNV farmland under agreement;
 - increased the purple moor-grass and rush pasture in favourable condition and improved condition for most habitats on land under agreement;
 - increased the area of specific habitat under agreement including BAP priority habitats and hedges;
 - maintained plant species on all habitats under agreement with the exception for wet heath and woodland;
 - planted 46 ha of broadleaf woodland on ungrazed margins and 14 ha in riparian zones;
 - supported farms to convert land to organic farming leading to the total registered organic farming land in Northern Ireland increasing by a third from 9,000 ha in 2007 to 12,000 ha in 2012; and
 - supported farmers to breed of moiled cattle leading to a 72.4% increase in the numbers of moiled cattle between 2006 and 2014.
26. The Agri-Environment survey carried out by NISRA also indicates that beneficiaries believe participation in the scheme supported biodiversity on their land, protected wildlife, protected natural habitats and supported them to farm in a more environmentally friendly way.
27. Measure 2.3 (Afforestation) grants protected and enhanced natural resources and landscape including biodiversity, HNV farming and forestry by converting 1,871 ha of mainly agriculture land to forestry and managing it in line with good forestry practice for a minimum of 20 years. Levels of forest cover are much lower in Northern Ireland than the rest of Europe and restoration of this natural resource was essential to not only improve the environmental situation but for maintaining the supply of timber. In addition to the benefits of increasing a natural resource, beneficiaries of the afforestation schemes indicated the planting of woodland created a habitat for other plant and animal species that increased the general biodiversity of their converted land.
28. Measure 2.4 (Forest Environments) supported 46 ha of existing woodland under five year agreements to manage the land in line with good forestry practice and supported 11 forest enhancement projects to improve biodiversity. Uptake of two existing woodland improvement grant schemes was very low and actions were

generally limited to supporting the removal of invasive exotic species such as rhododendron.

29. Axis 1 supported HNV farming through the Focus Farm scheme (Measure 1.1) which promoted environmental farming practices as part of the training through 14 environmental farms and by the use of focus farms as venues for agri-environment training. Farmers also received training on Bovine Viral Diarrhoea (BVD) which supported HNV farming through animal welfare improvements. The PMG scheme contributed to protecting and enhancing natural resources and the landscape through 47% of the successful applications encouraging better use/elimination of by products and waste reducing the impact of their business on the natural landscape. Measure 1.3 supported HNV farming through the METS and FMP schemes. Investment in manure efficiency technology supported reduced/more efficient use of chemical fertilisers and investment in farm modernisation items supported improvements in animal welfare. Short Rotation Coppice (Measure 1.3) supported the protection and enhancement of natural resources by planting 449 ha of willow trees to be used as a renewable energy source. This planting also contributed to increasing biodiversity by providing habitats for wildlife.
30. Axis 3 contributed to the protection of natural resources through renewable energy projects supported under diversification of the rural economy and improving small scale infrastructure. Diversification schemes also contributed to the protection of natural resources by supporting a number of recycling/waste management projects. Axis 3 contributed to enhancing the natural landscape by supporting 70 restoration projects under Measure 3.6 that restored traditional and heritage features on the landscape.
31. The extent the NIRDP contributed to protecting and enhancing natural resources and landscape including biodiversity, HNV farming and forestry is difficult to determine due to an absence of tangible monitoring that shows a direct impact of the programme on this priority. The available evidence shows 43% of Northern Ireland's total agricultural land, 54% of its grass and grazing land and 1.7% of its total forest area were placed under environmental management agreements that promoted HNV farming⁶¹. In order to receive support, agreements required beneficiaries to observe cross-compliance (Good Agricultural Environmental Condition and the 17 Statutory Management Requirements) and the Good Forestry Practice guidelines. Agreements required beneficiaries to control fertiliser spreading, maintain stocking levels, manage waste and protect habitats in line with EU and UK regulatory requirements.
32. Evidence also shows that over the course of the programme there has been a general improvement in soils in Northern Ireland. Surveyed areas of general managed grassland indicate sufficient phosphorus content has increased from 20%

⁶¹ Statistical Review of Agriculture (2015) Department of Agriculture, Environment and Rural Affairs (Based on annual NIRDP averages and current Northern Ireland Land Use Figures for 2015)

in 2006/2007 to 30.9% in 2014/2015⁴⁴ and areas of land with high or excessive phosphorus content has fallen from 67.5% to 59.6% over the same period. The reduction in phosphorus content directly relates to reduced use of chemical fertilisers over time and this reduction can be attributed at least in part to increased environmental management of the land as encouraged by the NIRDP through land management agreements, training and farm modernisation.

33. In terms of biodiversity the numbers of wild birds have decreased by 5.5% between 2006 and 2014 in Northern Ireland, while the numbers of wetland birds have decreased by 18.1% between 2006/07 and 2013/14. **Error! Bookmark not defined.** However, the agri-environment scheme has performed well in this regard as the target species of birds increased or were maintained on land under agreement with the exception of lapwing. There is also evidence that the agri-environment scheme contributed to a 72.4% increase in the indigenous breed of Irish moiled cattle by supporting beneficiaries through additional conservation payments to breed females. Overall, surveyed beneficiaries from both the NISRA agri-environment and forestry surveys indicated the schemes helped them to protect habitats and enhance the biodiversity.
34. Forestry in Northern Ireland has increased by 25,000 ha between 2007 and 2015 to 112,000 ha and accounts for eight per cent of the total land area. NIRDP accounts for 9.5% of this increase in cover through planting that took place under the Short Rotation Coppice scheme (Measure 1.3), agri-environment (Measure 2.2) and afforestation Measures (Measures 2.3 and 2.4). This planting increased the size of an important natural resource and also contributed to protecting the landscape. Research shows the planting of forests helps improve the quality of nutrients in the soil and acts as a buffer zone to protect water courses when planted in riparian areas. Support to generate renewable energy including short rotation coppice, wind turbines, water turbines, solar panels and biomass boilers also protected natural resources by providing an alternative energy source to peat, which is a protected agri-environment programme habitat.
35. In conclusion, there is a shortage of quantified evidence that measures the extent to which the programme has contributed to protect and enhance natural resources and landscape including biodiversity, HNV farming and forestry. However, the evaluation of the interventions provides enough anecdotal evidence to suggest that NIRDP has played an important role in improving the environmental situation in rural areas from the regulatory nature of the management agreements signed, size and type of land area under agreement and the quantified data that is available.

To what extent has the NIRDP contributed to the supply of renewable energy?

36. The use of Renewable Energy (RE) Technologies (includes biomass, wind, solar, hydro and any other potentially viable renewable energy technology) can encourage on-farm solutions for agricultural and forestry products and residues. Renewable energy technologies can also enable farmers to produce a secure supply of clean energy and can also contribute to GHG reduction and achievement of renewable energy targets. The by-products from some RE systems can reduce the use of chemical fertilisers.
37. Renewable energy technologies are increasingly manufactured locally. The construction of farm scale renewable energy projects can provide a boost to the rural economy. This is particularly the case as capital grant monies can attract a related private investment of up to eight times the size of the public contribution. Under the NIRDP, funding could be provided to farmers for the capital cost of investment in renewable energy technologies (to include biomass, wind, solar, hydro and any other potentially viable renewable energy technology). There are good natural resources available for renewable energy generation in Northern Ireland including availability of land bank for biomass feedstock for potential use in renewable energy technologies.
38. During the 2007-2013 period, the programme supported the production and processing of lower CO₂ gas emitting renewable energy sources with 111 projects supported through Axis 1 interventions including the Short Rotation Coppice Scheme (80), Processing and Marketing Grant scheme (15) and Supply Chain Development Groups (16). Axis 3 schemes supported the production of a total of 5,632,053 additional kilowatt hours per annum of renewable energy through the three “diversification” Measures (3.1, 3.2, 3.3) and Measure 3.4, “Basic Services for the Economy and Rural Population”.
39. Despite some progress being made, there is some resistance to change in Northern Ireland and more knowledge is needed to instill confidence to invest in Renewable Energy (RE). In addition to this the capital cost of equipment and facilities on farms to take climate change friendly actions is high e.g. renewable energy and slurry management. It is likely that these factors hindered the extent to which the NIRDP contributed to the supply of renewable energy.

To what extent has the NIRDP contributed to improving the competitiveness of the agricultural and forestry sector?

40. The NIRDP contributed to improving the competitiveness of the agriculture and forestry sector through all four Axis 1 interventions, supported by Axis 2 actions and diversification actions under Axis 3. In order to establish the extent of this contribution the evaluation assessed the NIRDP's contribution to meeting the EU set competitive impact indicators for Axis 1 and other indicators relevant to the EU strategic objectives for Axis 1.
41. The most recent figures show that in real terms the agri-food sector (agriculture and food and drinks processing) Gross Value Added to the economy grew by £185m (19.6%) from £944m in 2007 to £1,129m in 2014. The food and drinks processing sector accounted for £115m (62%) of this growth. Although the figures aren't directly comparable, evidence from NIRDP shows it made a significant contribution to growth in the food and drinks by supporting projects through the Processing and Marketing Grant scheme and Supply Chain Development Programme. These increased the Gross Value Added by a total of £19m per annum in supported enterprises that were involved in the processing of agricultural and forestry sector products. This contribution to Gross Value Added will increase in the future with only 50 of the 115 Processing and Marketing grant schemes completed and evaluated to date.
42. The Processing and Marketing Grant Scheme (Measure 1.2) invested in 115 projects across all agriculture sectors and the forestry sector covering a wide variety of activities. Investments that took place included funding for the introduction of modern processing equipment, the introduction of innovative technologies and practices, increased production capabilities and labour efficiencies, new products, and environmental impact reduction. In addition to increasing the Gross Value Added in the supported projects the support also led to a 63% increase in export sales for the enterprises indicating greater competitiveness in the international market. The scheme had a multiplier effect for the competitiveness of agriculture and forestry producers as investments encouraged collaboration in the supply chain leading to a 56%⁶² increase in the number of primary producers supplying to the supported processing enterprises.
43. Measure 1.4 (Supply Chain Development Programme) encouraged collaboration in the supply chain by providing early stage supply chain partners (farmers and food producers) with facilitation/mentoring support to draw up an action plan to develop their business concept in order to bring it to market. The scheme resulted in 35 enterprises successfully introducing new products or techniques to the supply chain and increased Gross Valued Added by £1.8m in supported enterprises.

⁶² Based on 38 completed projects in the Strategic Investment Bureau Post Project Evaluation February 2016.

44. Growth in Gross Value Added specific to the agriculture sector (farming) in income terms has fluctuated throughout the period of the programme due to fluctuating prices, variable exchange rates, global economic slowdown and political crises. Gross Value Added to the agriculture sector in output terms shows that agricultural output has grown by 14.8% between 2007 and 2015. There has also been a growth in agriculture Labour Productivity in real terms of 16% over the period and the average farm business income has increased by 37.6% from £18,100 to £24,900⁵⁸.
45. Measure 1.1 (Vocational Training and Information) contributed to increased growth, labour productivity and farm business incomes in the agriculture sector by successfully providing training to 51,782 farm and farm family members. Benchmarking enabled farmers to compare their business to others of similar type and size in terms of output, costs and profitability in order to make informed decisions to improve their business. The Focus Farm Scheme (Measure 1.1) provided farmer-led training to promote the adoption of good production, business and environmental practices. While, the Farm Family Options scheme (Measure 1.1) provided business mentoring and skills training to farmers and farm families to develop their farm business, promote innovation, promote health and safety in the workplace, improve animal welfare, support restructuring and diversification and plan for succession of their farm business. Feedback from participants indicates the financial impact of Family Farm Options on the farm business was not as significant as the other two schemes. This is mainly due to the activities supported under Farm Family Options being predominantly concerned with the long term competitive sustainability of farming rather than short term efficiency and output gains.
46. Measure 1.3 (Modernisation of Agricultural Holdings) helped increase output, labour productivity and farm business incomes by investing in items/machinery that improved the performance of the farm businesses. Support was provided through the Farm Modernisation Scheme for farmers to purchase new technology and innovations that improved animal welfare, product storage, safety, efficiency, energy efficiency and the environmental impact of farming. Demand for support from the FMP scheme (including METS) was high with 5,566 beneficiaries receiving support for items that evidence from the Post Project Evaluation shows had a positive financial impact on their business through labour efficiencies, cost savings and increased outputs. The Short Rotation Coppice scheme provided grants to farmers to contribute to the costs of establishing approved willow energy crops. Evidence from the NISRA Short Rotation Coppice survey shows it had a positive financial impact on its 80 beneficiaries by supporting them to generate additional income from land unsuitable for agriculture use.
47. The Measure 2.1 (Less Favoured Area Compensation Allowance scheme) supported Axis 1 interventions to increase output, labour productivity and farm business incomes by providing subsidies to maintain farming in less favoured areas. The scheme supported on average 54% of Northern Ireland's farmers

annually to maintain farming on LFA land. For Cattle and Sheep Farmers in the SDA (35% of Northern Irelands total farm businesses), this support accounted for 31% of their total farm business income over the programme period. This extra income helped maintain the numbers of farmers who could benefit from efficiency training events and increased their disposable income to invest in new equipment/technology to modernise their agricultural holdings and farming methods.

48. Support from the Agri-Environment programme allowed farmers to maintain their competitiveness while introducing more environmentally friendly farming practices to help Northern Ireland meet EU environmental regulatory requirements. Support for afforestation of agriculture land allowed beneficiaries to derive an income for a minimum of ten years from support for the conversion of poor agricultural land and some to derive an income from the production of timber/energy crops.
49. Support for farmers/farm families to diversify their farm business into non farming activities support under Axis 3 contributed to improving competitiveness of agriculture and forestry by increasing farm family incomes, helping them to maintain farming on their land and increasing disposable income to invest in modernisation equipment/technology.
50. The EU strategic objective for competitiveness identified restructuring of the agriculture and forestry sector as one of the key actions of the Rural Development Programme. This was reflected in the rationale for the NIRDP with a large number of small farms viewed as an impediment to improved competitiveness and the Farm Family Options mentoring scheme addressed the issue of restructuring with participant farmers.
51. Between 2007 and 2015 the total area farmed in Northern Ireland fell by 1.7% from 1,114,544 ha to 997,748 ha due to a fall in the number of farms from 26,146 to 24,907. Over the period the average size of a farm increased from 38.8 ha to 40.1 ha and the proportion of very small/small farms fell from 89% to 88%. The number of farmers and their partners working on farms fell by 3.6% from 31,207 to 30,068 while the proportion of part time farmers and partners remained the same at 45%. The total income from farming fell by 10.6% from £204.1m in 2007 to £182.5m in 2015 mainly due to falls in price of agricultural products especially milk in 2015. The sector remains heavily dependent on subsidies to generate farm incomes with the total income from subsidies greater than the total income from farming in six out of the last nine years.
52. The EU strategic objective for Axis 1 encouraged support to be given to enhance generational renewal in agriculture with interventions tailored towards the needs of young farmers. In 2007, 54% of Northern Ireland's farmers were aged 55 and over, with only 22% under 45 years of age²³ compared to 59% aged over 55 and 17% under 45 in 2013. Therefore the farming population continued to age despite Farm

Family Options addressing issues surrounding succession and priority being given to supporting young farmers (under 40) in other training activities and the Farm Modernisation Scheme.

53. In conclusion, the evidence shows NIRDP 2007-2013 has made a significant contribution to improving competitiveness in Northern Ireland's growing food and drinks processing industry with a knock on effect for agricultural producers through increased demand for their farm produce. Feedback from farmers in the agricultural and forestry sectors shows that there have been competitive gains from efficiency savings and increased outputs through participation in training and information actions and financial support to modernise their farms. Despite these competitive gains, incomes in the sector are still heavily dependent on Pillar 1 payments, vulnerable to input and output price changes and are insufficient to encourage generational renewal and young farmers into the industry. The sector is also characterised by a high proportion (45%) of part-time farmers.
54. All the evidence relating to the farming sector supports the view of the rationale that there are too many small farms in Northern Ireland making it difficult for farmers to generate a competitive full-time income. The evidence also suggests that farm subsidies help make it an attractive second income for many. Therefore, it can only be concluded that until the structural deficiency of 88% of farms being small/very small is addressed the industry will not be competitive enough in Northern Ireland to generate a stable and competitive full-time income for farmers. Attempts to improve competitiveness in the farming sector in the mean time will only make a small difference and the sector will remain characterised by a high proportion of part-time subsidy dependent farmers and an aging population.

To what extent has the NIRDP contributed to climate change mitigation and adaption?

55. The extent of the NIRDP's contribution to this Axis 2 priority area is difficult to measure due to many global contributing factors affecting climate change. As a small region we have little control over these or the unpredictable long term nature of the change. Overall, the NIRDP 2007-2013 contributed to climate change mitigation and adaptation by supporting beneficiaries/projects to reduce greenhouse gas emissions, increase carbon capture and make adaptations to prevent damage from severe climate events e.g. flooding.
56. Agriculture in 2014 accounted for 28% of Northern Ireland's greenhouse gas emissions and is the most significant source sector for nitrous oxide, accounting for 86% of total Northern Ireland emissions. Nitrous oxide emissions are largely driven by fertiliser nitrogen use, manure applications and grazing returns to agricultural soils. Since the introduction of the first agri-environment scheme in 2000 greenhouse gas emissions from agriculture soils and urea has reduced in Northern

Ireland by 21.5% from 1,633 (ktCO₂e) in 1999 to 1,282 (ktCO₂e) in 2014. Between 2006 and 2014 greenhouse gas emissions were down four per cent from 1,335 (ktCO₂e).

57. The NIRDP contributed to the reduction of greenhouse gas emissions by placing 43% of Northern Ireland's total agricultural land under Axis 2 agri-environment agreements⁶³ that improved fertiliser spreading techniques of farmers, controlled the quantity of fertilisers used and controlled grazing on the land. Axis 1 supported this reduced use of fertilisers by improving farming techniques of focus farmers and by the use of focus farms to deliver environmental/cross compliance training to agri-environment scheme beneficiaries. The Manure Efficiency Technology Scheme also provided financial support to farmers to purchase equipment that would reduce the amount of fertiliser used in the spreading process.
58. As previously mentioned the programme supported the production and processing of lower CO₂ gas emitting renewable energy sources with projects supported through Axis 1 and Axis 3 interventions.
59. The programme supported an increase in carbon capture through Measure 2.1 (Agri-environment scheme) actions, Measure 2.3 (Afforestation of the landscape) and Measure 1.3 (Short Rotation Coppice). These schemes increased carbon capture through: the planting of an additional 2,380 ha of trees; planting of hedges; and by maintaining and increasing the extent of heather moorland and raised bog to capture carbon and reduce emissions of carbon dioxide from drainage, reclamation and peat cutting (additional 5.7% under agreement).
60. The main impacts of climate change in Northern Ireland were expected to be;
 - threats to biodiversity and habitats;
 - an increase in range of invasive non-native species in response to warmer temperatures;
 - a loss of coastal grazing marsh;
 - threats to inter-tidal habitats, salt marshes and mudflats through flooding and erosion;
 - field drainage issues in wetter weather, potential impacts on crop yields and potential impacts on animal health.
61. The NIRDP addressed these potential impacts by supporting 43% of Northern Ireland's agriculture land under agri-environment agreements which sought to protect these threatened habitats from the effects of climate change. Additional support was provided through the scheme to mitigate risks from flooding through riverbed enhancements and planting of riparian zones and waterlogged agricultural land. Additional support was also available to enhance habitats and protect wildlife from the effects of climate change. The Less Favoured Area Compensation Allowance provided support to beneficiaries to maintain farming in LFA areas which

⁶³ Based on annual NIRDP averages and current Northern Ireland Land Use Figures for 2015

helped mitigate the threat of invasive non-native species while afforestation under Measure 2.3 again helped to mitigate the threat of flooding.

62. In conclusion, there are many different sources contributing to climate change in Northern Ireland. Agriculture as a whole makes a significant contribution to greenhouse gas emissions and the NIRDP has played a role in trying to both reduce emissions and increase sequestration of the gases. The NIRDP has also offered some support to beneficiaries to adapt the landscape to protect against the potential impacts of climate change.

To what extent has NIRDP contributed to the improvement of water management?

63. At the beginning of the programme agriculture was identified as Northern Ireland's biggest contributor to the pollution of waterways. In general there has been an improvement in the quality of water since the introduction of the NIRDP 2007-2013 but in the absence of recorded water quality data for water areas relevant to the programme it is difficult to assess the extent of the contribution.
64. Data gathered in relation to the EU Nitrates directive shows from the beginning of the programme the percentage of sites with ground water nitrate concentration levels below 10 mg has increased from 56.4% in 2006 to 86.6% in 2014⁶⁴ The percentage of sites reporting nitrate concentration of less than 10mg in rivers has also increased from 71.1% to 86% over the same period, while there are no river sites reporting concentrations of more than 25mg since 2012. This reduction can be linked to the reduced use of fertilisers in Northern Ireland with the quantity of nitrogen based fertiliser used falling by 19% between 2006 and 2014.⁶⁴
65. The EU Water Framework Directive utilises a combination of biological, chemical and hydromorphological quality elements including macro-invertebrates, pH and ammonia to assign status of river quality in one of five classes from 'high' through to 'bad'. During the first cycle of EU water body environmental standards 2009 to 2013 the percentage of High and Good standard rivers fell from 25.3% to 22.7% in Northern Ireland while Moderate standard rivers increased from 44.9% to 53.7%. However, those achieving a Poor or Bad standard fell from 29.6% to 23.1%.
66. In terms of the Freshwater Fish Directive compliance there were 7.6% of Salmonoid rivers that failed to meet compliance in 2006 compared to 3.1% in 2013. The number of Cyprinid river compliance failures also fell from eight per cent in 2006 to no failures in 2013. However, there were large fluctuations over the course of the programme as the length of Cyprinid rivers is low and a failure in one stretch had a big impact in percentage terms. There has been very little change in the

⁶⁴ Northern Ireland Fertiliser Time Series Data (2014) Department of Agriculture, Environment and Rural Affairs

quality of water in Northern Ireland's 21 lakes over the course of the programme with nine or ten consistently of bad or poor quality and 11 or 12 of moderate or good quality.

67. The NIRDP mainly contributed to the improvements by placing on average 43% of Northern Ireland's farm area under Measure 2.2 (Agri-environment) agreements between 2007 and 2014 that required farmers to reduce their use of fertilisers, restrict spreading around field boundaries and have a waste management plan that reduced point source pollution and eutrophication. Priority support was given to suitable habitats for associated wetland wildlife which acts as buffer to filter nutrients and reduce runoff from agricultural land entering watercourses and lakes. Additional agri-environment support was available to increase hedgerows and plant trees to act as buffer zones between agricultural land and waterways absorbing nutrients and helping to prevent flooding. Additional support was also available for riverbed enhancements reducing both pollution and managing the flow of water to prevent flooding.
68. Measure 2.3 afforestation support provided water quality benefits by planting 1,871 ha of trees that reduced diffuse pollution from agriculture. Afforestation also helped eliminate the risk of flooding for some beneficiaries and dried out wet land for others.
69. Axis 1 supported this Axis 2 priority area by providing Focus Farm training on good environmental practice on 14 focus farms which also acted as venues for agri-environment training. The Manure Efficiency Technology Scheme supported farmers to purchase machinery to efficiently spread slurry, reducing the use of chemical fertilisers and therefore farm discharge pollution into the water supply. The Farm Modernisation scheme provided support for beneficiaries to purchase more efficient fertiliser spraying equipment. There were 55 successful projects under Measure 1.2 that met the pre-requisite to encourage better use/elimination of by products/waste making a contribution to maintaining watercourse quality by preventing industrial discharge into waterways and reducing waste going to landfill sites that can pollute the water table.
70. Diversification into waste management supported under Axis 3 helped provide waste facilities where aqueous waste could be disposed of safely without entering the water supply. This helped Northern Ireland meet new legislation restricting the disposal of liquid waste to landfill sites with one beneficiary enabled to process a maximum of 50,000 tonnes per year allowing the business to target big and small companies.
71. In conclusion, the evidence suggests water quality has slowly been improving over the course of the programme. The NIRDP has made an important contribution to this improvement through a coordinated approach to water management in the farming sector. The Axis 2 agri-environment scheme committed 43% of the

farmland in Northern Ireland to be farmed using methods that reduced agriculture pollution of watercourses from chemical fertilisers, pesticides and herbicides. These agreements were supported by best practice training to reduce water pollution and grant support to purchase new technology to support the efficient spreading of slurry as a replacement for chemical fertilisers. In addition to agri-environment scheme, afforestation support offered an alternative source of financial support to implement water management actions that protected waterways from agricultural pollutants. The programme also made a contribution to reducing water pollution from the wider economy by support granted under Axis 3 to build liquid waste management processing sites.

To what extent has the NIRDP contributed to improving the quality of life in rural areas and encouraging diversification of the rural economy?

72. Axis 3 was focused upon “the quality of life in rural areas and diversification of the rural economy.” The Rural Development Programme aimed to improve the quality of life in rural areas by supporting a wide range of projects which primarily fell under the following Measures:
- Measure 3.4 Basic services for the economy and rural population.
 - Measure 3.5 Village renewal and development.
 - Measure 3.6 Conservation and upgrading the rural heritage.
73. Under Measure 3.4, the NIRDP aimed to increase the attractiveness of rural areas through supporting the improvement of basic services. This included the improvement of cultural and leisure activities and related small-scale infrastructure. Support was also provided towards the costs of identifying needs. A wide range of projects were taken forward under Measure 3.4 and some of the impacts identified included:
- Improved facilities and services for those with disabilities.
 - Improved or new recreational facilities.
 - Improved childcare provision.
 - Improved children’s play areas.
74. Some more indirect impacts identified as a result of Measure 3.4 included the following:
- Improvement in young people’s mental health.
 - Increased levels of physical activity.
 - Improvement in older people’s, women’s and farmers’ well being.
75. A further impact was the involvement and engagement of marginalised and excluded people in social and economic activities through initiatives such as home-working, bespoke training, mentoring and support. Furthermore, there is evidence that the Measure supported innovative and joined up approaches to rural service

promotion and delivery, particularly those using community facilities and/or developing rural service hubs to increase the sustainability of rural communities. There is evidence that it also helped address core issues such as, transport, fuel poverty, utility and infrastructure provision.

76. Under Measure 3.5, in order to support integrated village initiatives which promoted community development and regeneration, the NIRDP supported animation and capacity-building within and between villages and their surrounding rural areas. This included the formulation of integrated action plans to define the role of the village and develop the potential of rural areas. A wide range of projects were taken forward under Measure 3.5 and some of the key impacts included:
- Physical improvements to the village, such as improving walkways, signage and enhancing the appearances of buildings and frontages;
 - Economic improvements to the village via attracting non-locals and tourism to the villages;
 - Social improvements to the village through the provision of recreation space and facilities;
 - Village Halls and community centres to provide community facilities; creating 'shared space' for the community;
 - Environmental improvements to the village such as clearing trails, removing rubbish, planting flower beds, restoring villages' architectural and historical legacy.
77. Some more indirect impacts of the activities undertaken under Measure 3.5 are:
- Addressed issues of rural isolation by providing improved and expanded user facilities and access to services;
 - Creation of multi-use centres that are used by all sections of the community enhanced community relations and engendered a sense of community ownership;
 - Legacy potential through, for example, creating the conditions for the potential and opportunity for the establishment of new clubs and interest groups;
 - Encouraged increased footfall to the area by providing access to services and activities.
78. Under Measure 3.6 the NIRDP aimed to use the natural resources in Northern Ireland's rural areas to create new employment opportunities and develop the rural economy. This was to be achieved through supporting local village initiatives to preserve and upgrade their rural heritage. A wide range of projects were taken forward under Measure 3.6 and the key impacts included:
- Improved people's knowledge of and access to the Cluster area's heritage assets;
 - Supported the maintenance of local culture and celebrated same;
 - An audit/mapping of the Cluster's heritage assets;
 - Community-led environmental clean-up and improvement schemes;

- The restoration of built heritage features.

Other more indirect impacts of the activities undertaken under Measure 3.6 were:

- Awards or other recognition of work undertaken/achievements, made possible as a result of NIRD investment;
- Increased people's knowledge and use of traditional rural skills;
- Promotion of local rural heritage sites.

79. It is evident that the projects supported under Measure 3.6 have also helped to encourage rural tourism built on the sustainable development of Northern Ireland's natural resources, cultural and natural heritage and to maintain, restore and upgrade the natural and built heritage.
80. Measure 2.1 Less Favoured Areas Compensatory Allowances Scheme, also contributed to the Axis 3 priority of improving the quality of life by ensuring that rural areas remain attractive to future generations through the continued management of uplands, preventing them from becoming unusable, thereby helping to retain the rural population and contributing to maintaining strong rural communities. Measure 2.2 Agri-Environment Programme, also contributed to the Axis 3 objective of improving the quality of life in rural areas by:
- environmentally farming the land to improve the historical landscape;
 - encouraging biodiversity;
 - improving waterways and water quality;
 - increasing forest cover and management: and
 - improving air quality, including smell.
81. The Agri-Environment Programme brought positive effects for those living in the rural communities as it helped to create a greener and cleaner rural environment with improved biodiversity, water quality and air quality. For visitors to rural areas the scheme has also improved not just the quality of the rural environment but the natural beauty of the area through tree planting and restoration of the historical landscape.
82. Measure 1.3 (Modernisation of Agricultural Holdings), also made a contribution to improving the quality of life in rural areas by contributing to improving the countryside through more environmentally friendly farming methods that keep rural areas attractive for future generations. In addition to reducing odours in the air, improving the quality of waterways, providing more forest environments and reducing the carbon foot-print, the Measure has helped to maintain strong rural communities by increasing incomes of farmers and the wider rural community through the multiplier effect.
83. Measure 3.1 encouraged diversification of the rural economy by supporting a wide range of projects primarily aiming to increase farm household income and create employment opportunities by providing assistance for farm households to diversify into non-agricultural activities on farm. A total of 636 beneficiaries received support

for their efforts to diversify into non-agricultural activities across more than ten business categories. Of the beneficiaries allocated to sectors, the breakdown reveals diversification into the following areas:

Sector	Percentages
Manufacturing	23%
Services	18%
Agri-tourism	16%
Childcare	1%
Food/drink processing	1%
Leisure/fitness	11%
Retail	1%
Recycling/waste management	3%
Renewable energy production	23%
Craft	1.5%
Other Sector	0.5%

84. It is evident from these figures that the non-agricultural activities spanned a wide range of areas. The most popular areas for diversification are manufacturing and renewable energy production, accounting for 23% each of the total followed by services and agri-tourism, at 18% and 16%, respectively.
85. The Farm Family Options scheme within Axis 1 also directly links to farm diversification Measures under Axis 3 through the training of farm families in skills to provide opportunities for off-farm work and exploration through business mentoring of potential farm diversification businesses. A total of 2,247 applicants received business mentoring through the Farm Family Options programme exceeding the target of 2,150. As a result of mentoring, 22% of participants invested in equipment and/or buildings, 19% have explored or commenced diversification and nine per cent have explored or commenced new employment opportunities. This indicates that 50% of participants are in the process or have made changes to their business. In April 2011, a customer survey was carried out with 27% of participants indicating the training was beneficial for farming activities and 71% indicating it had benefits for off-farm employment opportunities.
86. A core principle of the approach to broader rural development in Northern Ireland has been and continued to be that the communities which most closely experience problems should be involved in the design and delivery of projects and programmes to tackle problems and, thus, improve their quality of life. Impacts and effects from Measures 3.4, 3.5 and 3.6, in particular, provide evidence of this core principle having been embraced.

87. Measure 3.4 has assisted a diverse range of projects which improved or maintained the living conditions and welfare of those living in rural areas and increased the attractiveness of such areas through the provision of more and better basic services. Measure 3.5 has assisted projects which have enabled and encouraged residents of villages and surrounding areas to create visions and action plans to ensure the full potential of such areas is achieved. It has also provided funding for specific projects which have supported integrated village initiatives which promote cross-community development and regeneration. It is clear that the actions supported under Measure 3.6 have created opportunities to preserve and upgrade Northern Ireland's rural heritage and to use the natural and built environment as the basis for sustainable economic growth in rural areas.
88. Overall the evaluation provides evidence that Measure 3.1 activity, in particular, has successfully assisted farm households to diversify or further diversify into non-agricultural activities and, as a consequence, maintain or increase the income of the farm households and create employment opportunities.

To what extent has NIRDP contributed to introduction of innovative approaches?

89. The NIRDP contributed to innovative approaches by supporting the agri-food sector and wider rural economy to invest in new technology, methods and business ideas. In the farming industry, Measure 1.1 Vocational Training and Information actions trained farmers in new innovative approaches to production, business and environmental farming. This was supported by mentoring and business benchmarking that helped farmers to identify new approaches to improving their business including identifying the uptake of appropriate skills training and new technology to achieve efficiency savings, increased outputs and environmental regulatory compliance. Mentors also provided support for farm family members who wished to diversify into non-agricultural activities. Feedback from participants indicates the majority of participants in the various schemes adopted better farming practices as a result of participation.
90. Measure 1.3 (Modernisation of Agricultural Holdings) specifically targeted the uptake of new innovative technology within the farming industry with prioritisation given to support for items with the highest modernising potential. In Tranche 3 of the Farm Modernisation scheme there were 230 items eligible for support categorised into three bands of modernisation/innovation. The newest items with the most modernising benefits were categorised into Band 1(40%), while the more widely available older least modernising items were categorised into Band 3 (34%). In addition the Manure Efficiency Technologies Scheme (METS) encouraged the uptake of new slurry spreading technology to help farmers achieve greater nutrient efficiency from manures and slurry. The number of items supported decreased from seven to two over the course of the scheme with prioritisation given to items that

were the most innovative in terms of environmental benefit and cost effectiveness. In total there was 5,566 farm holdings investments made by these two schemes in innovative items that brought benefits from increased efficiencies, outputs and environmental compliance.

91. The agri-food processing sector was supported to develop new supply chain techniques and new products through the Processing and Marketing Grant scheme (Measure 1.2) and the Supply Chain Development Programme (Measure 1.4). In addition to this support the Processing and Marketing Grant scheme provided capital investment for buildings, plant and equipment. The Processing and Marketing Grant scheme successfully supported 115 enterprises to develop new techniques or products with 54.2% of the budget spent on new plant and equipment which would include new innovative technology. The Supply Chain Development Programme was successful in supporting 35 new enterprises to develop new supply chain techniques or new products to bring to market.
92. New innovative business ideas outside the agri-food sector were supported through Axis 3 funding. There were 636 members of farm families and 447 non-farm family members that developed new non-agriculture related business ideas that were supported under Axis 3. Investments were made in capital/technology, resources and training to bring their new business plan or expanded business plan to fruition. Axis 3 also provided support for small infrastructure improvements and service delivery that made innovative approaches possible in rural communities. In particular £6.5m was invested in bringing next generation broadband to over 17,000 rural premises giving rural businesses the opportunity to take an innovative approach to the use of Information Technology to improve their business techniques.
93. In conclusion, the extent of the NIRDP contribution to innovative approaches in unquantifiable. However, the actions taken under the programme to support innovative approaches have helped contribute to:
 - Growth in the agri-food sector
 - Increased agricultural outputs
 - Increased Labour productivity and efficiency
 - Increased farm incomes
 - Environmental regulatory requirements
 - The wider rural economy and infrastructure
94. Therefore, the introduction of innovative approaches has been important factor in the programme's strategy to improve competitiveness in agriculture and forestry sector, improve the environment and the countryside, and improve the quality of life in rural areas and diversification of the rural economy.

To what extent has the NIRDP contributed to creation of access to broadband internet (including upgrading)?

95. Broadband speed, provision and cost - all of Northern Ireland officially has access to broadband internet. This statement however fails to take account of the fact that there continue to be wide variations in the speed and cost of accessing this service. Rural areas are undoubtedly losing out on both these fronts as distances from exchanges and mobile phone masts led to the creation of so called 'not spots' for adequate broadband provision, whilst only being able to access broadband through satellite is prohibitively expensive for rural dwellers and businesses alike.
96. The significance and use of the internet in relation to education, business and even service delivery continues to grow at an exponential rate. In this context having access to high speed, reliable and affordable internet is now essential if rural people, businesses and communities are going to be able to learn, trade and avail of services in the same way as their urban neighbours.

Next Generation Networks

97. The Northern Ireland Executive published a plan in the Programme for Government 2008 - 2011 and Investment Strategy 2008 - 2018 to ensure the development of modern, efficient infrastructure which is essential for economic and social development. One of the Department of Enterprise, Trade and Investment's (DETI) targets in this regard was to increase the availability of next generation broadband speeds to 85% of businesses by 2011. The project's aim was delivery of high-speed broadband services to 85% of Northern Ireland businesses by 2011, focusing on both rural and urban areas where these services were not available, or were unlikely to be available in the foreseeable future. Project funding of £19.6m, from the Department of Enterprise, Trade and Investment, the Department of Agriculture and Rural Development and the EU, under the ERDF Competitiveness Programme and the NI Rural Development Programme, leveraged investment of some £31m by BT. The overall objective of 85% of Northern Ireland businesses accessing the next generation broadband services of at least 2 Megabits per second was achieved in April 2011.

NI Broadband Improvement (NIBIP)

98. In line with national objectives, work began to further improve broadband services across Northern Ireland. A commitment was made to deliver the best superfast broadband network in Europe by 2015 and that virtually all premises across Northern Ireland should be able to access a broadband service with a speed of at least two Megabits per second (Mbps) by 2015 and to provide superfast broadband to at least 90% of premises with speeds in excess of 24 Mbps. This meant that steps needed to be taken to enhance the levels of service across Northern Ireland. These objectives also supported EU objectives in relation to broadband services.

99. Following procurement in February 2014, the Enterprise, Trade and Investment Minister, announced details of a major £23.5million investment that would see BT deliver improved broadband technologies and infrastructure across Northern Ireland. The Northern Ireland Broadband Improvement Project was a collaborative investment of £23.7m by DETI, under the European Sustainable Competitiveness Programme, DARD, under the European Agricultural Fund for Rural Development, DCAL, through Broadband Delivery UK (BDUK) and BT.
100. The project aimed to provide basic broadband in areas that have no service and to improve broadband services in certain areas where the choice is poor or broadband speeds are low. Some of these are in rural and remote parts of Northern Ireland. Following procurement, BT was appointed and work began in February 2014. It was scheduled to finish by December 2015 and, when completed, it was to bring more choice and improve speeds to over 45,000 premises.

Areas where improvements were planned

101. The implementation of the project was delivered in a number of phases and undertook extensive surveying, planning and re-engineering of a copper based network and changing it into a fibre rich broadband network. The work has now been completed and whilst many premises have seen improvement not everyone will be able to access basic or faster broadband services due to technical limitations with the technology being used to deliver services.
102. The Northern Ireland Broadband Improvement Project has resulted in the provision of new fibre optic telephone lines from existing exchanges to either new roadside cabinets or fibre nodes adjacent to premises. This has improved fibre based broadband services. The project has also delivered at an open access level providing households and businesses the choice of a supplier from several competing broadband companies in the area which offer superfast broadband. There are now a number of on-line checkers available to assist consumers choose the most appropriate package.

Results

103. Measure 3.4 invested £1.5m in the Department of Enterprise, Trade and Industry's project to provide next generation broadband services to 85% of businesses by 2012. The Axis 3/4 grant funded fibre upgrades to 204 cabinets across rural Northern Ireland. While figures on the number of connections to each cabinet are not recorded, the Axis 3 investment has ensured that 17,094 rural businesses and rural dwellers now have a connection to improved Broadband services. It is recognised that a significant number of private telephone line holders are farm businesses.

104. A further £5m was invested in the delivery of broadband infrastructure through the Department of Enterprise Trade and Investment's Broadband Improvement project. The main objective of this additional investment was to ensure access to broadband for rural businesses and premises located in area with no or very poor broadband service. By the end of the period, access to broadband service had been installed in 2,135 of the post code areas targeted under the LOO resulting in the availability of broadband service to 17,230 rural premises.

Conclusion

105. Through the basic services Measure of the 2007 - 2013 Rural Development Programme, DARD invested £6.5m in improving access to broadband for rural premises. The Next Generation and the NI Broadband Improvement (NIBIP) projects were delivered on the ground by DETI. By the end of December 2015 the total numbers of premises with access to improved broadband services were reported as 17,094 under Next Generation and 17,230 under NIBIP.

To what extent has the National Rural Network contributed to the NIRDP objectives?

106. Under EU Rural Development Policy before 2007, networks were primarily used to support the delivery of the LEADER approach. The EU experience was that networking helped to stimulate new ideas and sharing of rural development knowledge and practice. As a result, the EU introduced networking as a regulatory requirement into rural development policy for the 2007-2013 programming period.

107. A Working Group was set up to oversee the establishment of a Rural Network for Northern Ireland. This group comprised DARD staff and two Members of the NIRDP Monitoring Committee. The decision to outsource the establishment and management of the Network was taken as a result of the responses to the public consultation on the draft Rural Development Programme and discussions with the NIRDP Consultative Partnership Group.

108. The expected core functions of the Rural Network for Northern Ireland (RNNI) were set out in the tender documentation as follows:

Information exchange and co-ordination

- Liaison with other regional rural networks in the UK, the Ireland Rural Network and the European Network for Rural Development.
- Dissemination of advice / guidance from the NIRDP Managing Authority to interested parties.

Good Practice

- Identification and analysis of good practice drawing on the breadth of EU Rural Development Programmes.
- Dissemination of best practice, knowledge, practical experience and guidance to NIRDP delivery bodies across all Measures.

Training

- Identification of need for and ensuring effective delivery of training for NIRDP Local Action Groups and other delivery body staff, Local Action Group leaders/Directors & other delivery bodies, as necessary.

Co-operation

- Promotion and facilitation of NIRDP Local Action Group co-operation (inter-territorial and trans-national) projects.

Website & Database

- Development and maintenance of a Rural Network for Northern Ireland website and Database.

109. The NIRDP Network aimed to contribute to each of the three objectives detailed in Article 4 of the Council Regulation (EC) No 1698/2005, namely,

- Improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation (Axis 1)
- Improving the environment and the countryside by supporting land management (Axis 2) and
- Improving the quality of life in rural areas and encouraging diversification of economic activity (Axis 3) and implementing the LEADER approach.

110. A review of the operation of the RNNI for the 2007-2013 programming period was carried out by DARD in 2015 and considered the following areas:

- The implementation of the rural network including the decision to outsource, the tender procedure and the management of the contract.
- A review of the outputs of the contract.
- An evaluation of the impact of the rural network.
- Recommendations for future implementation.

111. The review identified a number of lessons learnt from the 2007-2013 programming period and recommended improvements for the establishment and operation of the rural network for the 2014-2020 programming period. With regard to the output of the network the review found that while there was good information exchange and coordination with the UK networks, engagement with the Ireland rural network was limited. It went on to say that a significant portion of the information exchange and coordination core function was spent on the organisation of the Cluster Networking

Forum, Strategic Forum and Local Action Group meetings for the implementation of Axis 3 of the NIRDP. The dissemination of good practice was primarily achieved through six thematic working groups:

- Village renewal and development (Axis 3 and 4)
- ICT (Axis 3 and 4)
- Women in rural development (Axis 1, 3 and 4)
- Social Farming
- Local Food (Axis 1, 3 and 4)
- Children and Young People (Axis 3 and 4)

112. A major focus of the network was on addressing the training needs of a volunteer membership for the implementation of the Local Action Groups' local development strategies. It had a significant role in the training of the Local Action Group and Joint Council Committee members. Due to the delays in setting up the Local Action Groups and the opening of the schemes in Axis 3 in the NIRDP 2007-2013, there was a delay in implementing the cooperation Measure. A modification was subsequently made to the NIRDP in 2014 reducing the funding available for cooperation. This change was accepted by the Programme Monitoring Committee on the understanding that cooperation could be implemented earlier in the 2014-2020 NIRDP. The lack of cooperation activities within the NIRDP was reflected in the level of expenditure on this core function by the network.
113. The use of social media only became more prevalent in the later stages of the contract period and although a number of useful factsheets were produced by the RNNI, it was not possible to obtain information on the number of times the factsheets were downloaded from the website and it was therefore difficult to determine the effect of the information on the implementation of the rural development programme.
114. From an analysis of the RNNI's activities the review concluded that the main focus of the network's work programme was directed at Axis 3 of the programme. While some activity was directed at Axis 1 through the focus on local food and through the cross-cutting themes of women and children and young people, the network made no impact on Axis 2 (environment and forestry).
115. In September 2014 the Rural Network Provider carried out a survey giving over 250 contacts the opportunity to give feedback on the work of the Rural Network NI. Members from the Rural Network NI, thematic working groups, representatives of DARD and UK NRN were invited to participate in the survey. Forty-six responses were received with 83% of those indicating that the Rural Network NI was very effective/effective in supporting the Rural Development Programme 2007 – 2013 and 40% had accessed the services of the RNNI more than ten times in the previous 12 months.

116. Evaluating the impact of the contract however proved difficult. The absence of a business case for the contract including KPIs and an evaluation framework was the main reason for this. The setting of appropriate indicators and evaluation of the success of rural networks has also been identified by the European Commission as a deficiency for rural networks across all Member States. The EU have strengthened the role of networking for the 2014-2020 programming period including a greater focus on the evaluation of networks and networking to understand the impact.

Conclusion

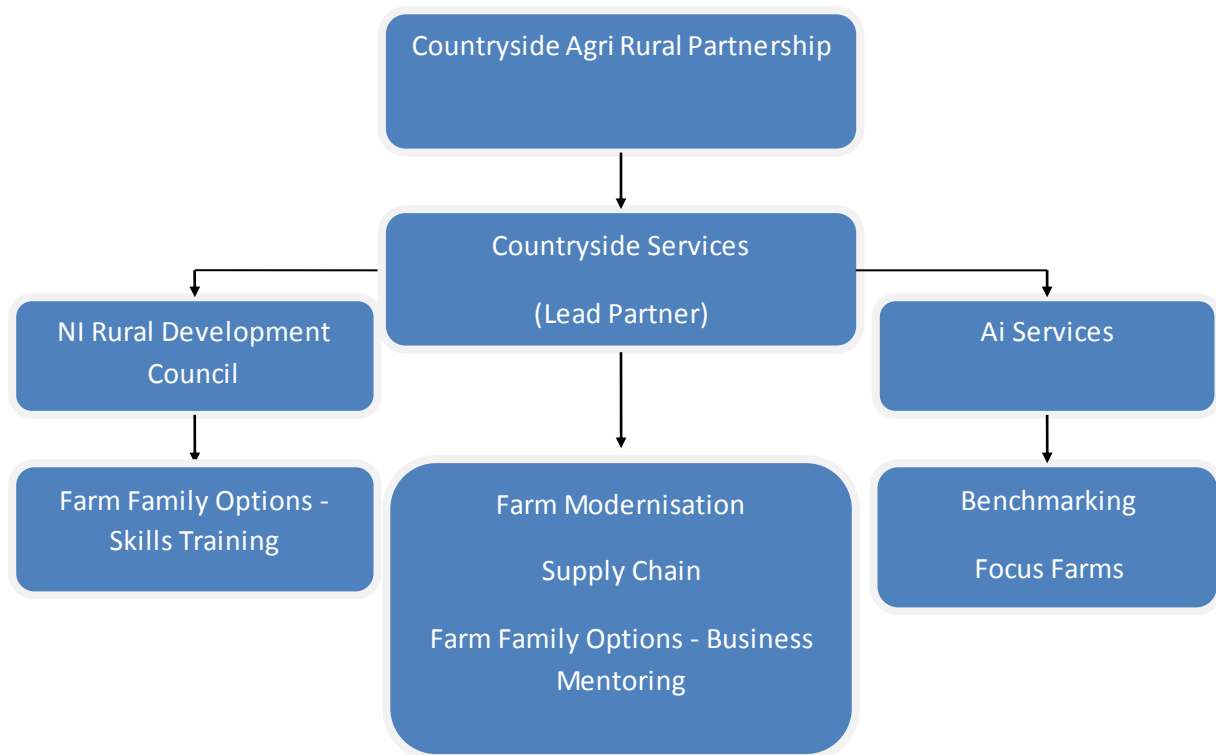
117. In conclusion there is insufficient evidence to measure the extent to which the RNNI contributed to the NIRDP objectives. There is some survey evidence which suggests that the support they provided was effective however the review in 2015 concluded that the main focus of the network's work programme was directed at Axis 3 of the NIRDP with limited engagement with Axis 1 and none with Axis 2. Therefore the RNNI may have had a positive contribution to improving the quality of life in rural areas and encouraging diversification of economic activity and implementing the LEADER approach but it did not have any contribution to improving the environment and the countryside by supporting land management.

To what extent has the TA contributed to NIRDP objectives?

118. In accordance with Articles 66(2) and 68 of Regulation (EC) No 1698/2005 a proportion of NIRDP 2007 – 2013 funding could be used for Technical Assistance activities. This funding could support core activities relating to the delivery, management, monitoring, evaluation and control of the NIRDP and for information and publicity actions. Technical assistance funding could also support the costs associated with the Rural Network and a share of costs associated with the UK Rural Network.

119. However, during the 2007 – 2013 NIRDP Technical Assistance funding was only utilised to meet the cost associated with the administration and delivery by an external body of selected Axis 1 Measures/Schemes. A technical adjustment to the NIRDP, accepted by the Commission on 13 July 2011, created a new 'Axis 5' Technical Assistance budget line to which relevant administration and management budgets for Measures 111, 121 and 124 were transferred.

120. The external delivery contract was awarded in October 2008 to Countryside Services Limited (CSL) which subsequently formed a partnership with sub-contractors and became known as the Countryside Agri Rural Partnership (CARP). The relationship of the contracting organisations is shown in the figure below.



121. CSL, as the lead applicant, undertook the role of the contract manager and contract secretariat. Under Contract, CSL administered and delivered the Farm Family Options Business Mentoring element under Measure 1.1, the Farm Modernisation Programme (including the Manure Efficiency Technology Scheme, METS) under Measure 1.3 and the Supply Chain Development programme under Measure 1.4; Ai Services (AiS) administered and delivered Focus Farms under Measure 1.1 and Benchmarking under Measure 1.1/Measure 1.4; and the Rural Development Council (RDC) administered and delivered the Farm Family Options Skills element under Measure 1.1 to deliver specific agreed measures and targets.
122. This innovative model of partnership was designed to maximise the combination of skills and experience of each organisation ensuring an excellent understanding of the customer base and providing for cost effective regional delivery. The period of the Contract ran from 01/02/09 to 31/12/15, with participating contributory schemes beginning and terminating at varying dates throughout this period.
123. Under the Contract each scheme was set agreed targets, or KPIs, to be achieved within the lifetime of the scheme and final analyses of individual scheme achievements concluded that:
- Focus Farms exceeded KPI at 131% of target;
 - Benchmarking (excluding modifications post March '15) fell short of KPI at 96% of target;
 - FFO – Skills total exceeded KPI at 119% of target;
 - FFO - Business Mentoring exceed KPI at 105% of target;

- Farm Modernisation fell short of KPI at 96% of target;
- METS exceeded KPI at 102% of target; and
- Supply Chain Development exceeded KPI at 107% of target.

124. Therefore, of the seven targets set for this expenditure, five were exceeded and the remaining two came very close to the expected level.

125. In conclusion, although Technical Assistance funding was only utilised for the delivery of one of the NIRDP objectives 'Improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation (Axis 1)' it is clear that targets were met and therefore the Technical Funding has had a positive contribution.

How efficiently have the resources allocated to the NIRDP been used in relation to achieving the intended outputs?

126. The development of the programme and intervention logic for the Measures has already been discussed in Section 5. In order to ensure the most effective and efficient delivery of the programme the Commission provided a Common Monitoring and Evaluation Framework which was used to help develop output indicators for each of the Measures chosen. This included details of resources allocated to each Measure and the requirement to monitor and report on an annual basis.

127. At the outset of the programme a communications plan was also developed to help inform applicants, general public and beneficiaries of the availability of funding and highlight the role of the EU in supporting the development of rural areas in Northern Ireland. The plan outlined the role of the key groups involved in the implementation of the programme.

128. Together these elements were intended to ensure that the appropriate actions were taken to inform potential beneficiaries of the schemes available within the NIRDP to maximise uptake and to ensure the resources allocated were spent in the most efficient and effective way to deliver the intended outputs. Continual monitoring by Measure Managers and the bi-annual updates to the Programme Monitoring Committee were the means by which success or otherwise of any scheme could be determined throughout the programme. This process provided the information on which to base decisions to move resources between Measures ensuring their most effective and efficient use. Where a change was required a modification to the programme had to be carried out and this involved further scrutiny by the European Commission.

129. It is important to note that at the time the programme was developed and approved, Northern Ireland was experiencing an economic upturn as a result of low interest rates, increased public spending and a strong UK economy. The effect of this prosperity was particularly evident in the property market and the construction industry, with house prices rising to their peak levels in August 2007 before the start of the economic downturn.
130. In 2008, the collapse of the financial institutions caused a UK and indeed wider recession. The subsequent fall in house prices had a particularly devastating effect on our local economy which was felt across all sectors, and clearly impacted on the rural areas that the Programme aimed to support. The strength and depth of the recession had subsequent implications for the delivery of the Programme, including the availability of match funding from both private businesses and Government departmental budgets.
131. In order to consider the efficiency of the use of resources within the NIRDP the following sections consider the performance across each of the Axes within the NIRDP in terms of their output and feedback from those involved followed by a brief overview of the changes made along the way.

Axis 1

132. The Measures have been considered in detail in earlier sections however it is helpful in considering the question of efficient use of resources to provide a short summary of outputs.
- Measure 1.1 - Vocational Training and Information Actions – the schemes met and exceeded their output targets and their allocation. A total of 53,277 trainees (nearly 3 times the output target) participated in training events across a number of schemes with 28,579 days training received (almost double the output target) and 51,782 participants (6 times the output target) successfully completing a training activity.
 - Measure 1.2 - Processing and Marketing Grant Scheme - a total of €66.8m (£56.3m) was invested from public and private funding in 115 projects to meet the eligible costs of the programme exceeding the targets set at 100 projects and €66.5m respectively.
 - Measure 1.3 - Farm Modernisation and Short Rotation Coppice - although, the targets were not achieved in terms of number of beneficiaries and total volume of investment from the Measure, the total grant funding target was met.
 - Measure 1.4 – Supply Chain Development Programme total of 64 groups funded exceeding the target of 60.

133. Surveys carried out as part of post project evaluations of the various schemes have provided some interesting feedback about promotion of the schemes. A survey of those participating in the Focus Farms Scheme indicated that 67% of respondents were satisfied with the programme promotion and feedback from the Processing and Marketing Grant (PMG) Scheme participants indicated that promotion through the DARD advisors and local offices was a key strength. There were also various recommendations which came out of the review of the PMG scheme including that more assistance be given to prepare applicants for application process.
134. Feedback from workshops with key informants concluded that the objectives chosen within Axis1 were all appropriate but it was difficult to achieve an uptake of innovation within the agricultural sector. Key informants also felt that additional incentives would have been required to encourage younger farmers to enter into farming in order to encourage succession of the Northern Ireland farm industry and maintain the food supply.
135. They also felt that the activities chosen were appropriate to meet the objectives however, it would have been worth considering including Measure 1.3 Short Rotation Coppice scheme under Axis 2 Forestry Measures as farmers could have received compensation and this would have encouraged a larger uptake of funding for the scheme. Further, under Measure 1.2 a marketing grant could have been introduced that would have allowed the promotion of Northern Ireland meat and milk products abroad as mark of quality. It was recognised that this would have had to come from National Funds as this type of support was not allowed under EU funds and there would also have been issues around state aid that may have prevented this from being appropriate.

Axis 2

- Measure 2.1 - LFA – exceeded target set for agricultural land supported but did not quite meet the target for number of holdings supported in areas with handicaps.
- Measure 2.2 - Agri-environment Programme - when taken as an annual average across the programme period, none of the EU quantified targets were achieved but the schemes performed well against the set targets in most years. The only target to be achieved on an annual basis was the area under organic management which was exceeded from 2007 to 2009 before tapering off towards the end of the programme as Organic Farming Scheme agreements came to an end. In terms of the non-productive investments, there were 758 investments made (including 70 Capital Enhancement Items) that achieved 69 per cent of the output target under Measure 2.2B.
- Measure 2.3/2.4 First Afforestation and Forest Environments - Performance against the EU set common indicator targets shows that for Measure 2.3A First Afforestation of Agriculture Land, 80.7 per cent of the beneficiary target

was achieved while the much reduced land area to be afforested target was exceeded. Although the schemes within the Measures struggled with uptake robust changes to implementation procedures were made in order to increase afforestation uptake in line with lower expectations which led to the combined afforestation targets being met.

136. Feedback from workshop with key informants for Axis 2 indicated dissatisfaction with support for the growth of organic farming within the programme. There was a general feeling that the money could be better spent in other areas. They also felt that the programme should have been more explicit on climate change and that Natura 2000 sites should have been set as a priority. They felt that there was a lack of evidence to say that the Less Favoured Area (LFA) payments had a positive effect however they recognised the issue of land abandonment. With regard to forestry, key informants recognised activity in line with objectives but felt that more resources would have made the schemes more attractive. They also felt that the socio-economic structure of agriculture in NI fails to integrate economic, environmental and social issues.

Axis 3/4

- Measure 3.1 - Diversification into non-agricultural activities - the final position for the number of beneficiaries receiving support for their efforts to diversify into non-agricultural activities is 636, exceeding the target set of 600.
- Measure 3.2 - Business creation and development - the final position for the number of micro-enterprises receiving support is 447, falling well short of the target set of 1,200.
- Measure 3.3 - Encouragement of tourism activities - the final position for the number of tourism actions receiving support is 251, which is 16% below the target set of 300. However the target of €24.9m for total volume of investment has been surpassed at €27.4m and over 1.5m additional tourist visits were recorded.
- Measure 3.4 Basic Services for the Economy and Rural Population - hugely exceeded its targets for number of supported actions, total volume of investment, gross number of jobs created and number of projects benefiting children/young people. However, the population benefiting from improved services and the potential volume of renewable energy are below target standing at 79% and 46% of their respective targets.
- Measure 3.5 - Village Renewal and Development - hugely exceeded its target for number of villages where actions took place. However the total volume of investment target has not been achieved and there were only two jobs created. The target for the number of community groups supported to undertake rural development within their communities is well exceeded as is

the target for the number of funded projects undertaken by NIRDP supported community groups. The target for the number of projects supported to encourage good cross community relations has been met.

- Measure 3.6 - Conservation and Upgrading the Rural Heritage - has well exceeded its targets for the number of rural heritage supported actions and the total volume of investment. The population target in rural areas benefiting from improved services has also been exceeded.

137. Feedback from the workshop with key informants on Axis 3 indicated that they felt that the inclusion of the objective of encouraging the entry of women into the labour market through addressing inadequate childcare and eldercare facilities was not appropriate as it implies these are the only barriers. Additionally they felt that the programme would have benefitted from the inclusion of objectives for North/South/Transnational Co-operation to build capacity and for Networking, to encourage sharing and knowledge of best practice.

138. With regard to the activities chosen to meet the objectives they felt that no actions were taken regarding entry of women into the labour force and that actions relating to Capacity building and leadership were not related to an objective. They also felt that increased exploitation of ICT was not well defined.

Financial Management

139. As previously discussed, decisions to move resources between Measures and other financial management issues required evidence from Measure Managers which was then considered by the Managing Authority and the Programme Monitoring Committee and finally by the Commission. There were 12 Modifications to the 2007 – 2013 NIRDP and some of these involved financial issues.

140. In 2008 the inclusion of Voluntary Modulation in the NIRDP enabled the Department to provide a more balanced and targeted rural development programme by concentrating funding in the Measures which provided direct benefits for farmers and farm families, albeit not always in the form of direct income.

141. Modification 3 in 2009 amended the NIRDP to include additional national funding in the Farm Modernisation Programme building on the significant investment in improved slurry and manure storage facilities in Northern Ireland. This helped to ensure efficiency throughout the process of storing and spreading slurry and manures and provided further environmental benefits through reduced nutrient loadings and risk of losses to water.

142. As a result of the UK Government's Spending Review in 2010 and consequential review of priorities within the programme, the Department agreed to modify the programme in 2011 making the necessary national savings only from within Axis 2.

The balance of savings were made in the agri-environment programme however by changing the scheme to give priority to participants with designated habitat areas this allowed the level of farmland covered by the scheme to be maintained. By prioritising designated land for habitat management under agreement, the Department continued to strive to meet the objectives defined for the Measure. In recognition that the agri-environment programme was complemented by other elements of the programme helping to address the programme's priorities in this area such as Measure 1.3 (Farm Modernisation Programme) which provided support for investments with a positive environmental impact additional funding was made available for this Measure. There was also a growing need for support for farm modernisation to underpin the future competitiveness of the industry.

143. In 2012 the Programme was modified to allow for the purchase of second-hand equipment under the PMG scheme. This was on the basis that the private sector had advised that economic conditions were making it difficult to secure the necessary match funding from banking institutions and that significant savings could be made if the purchase of good-value second hand equipment was allowed.
144. Modification 9 in 2013 was carried out in order to amend the aid intensity for some Axis 3 Measures. The need to do this arose from the impact of the prolonged economic downturn on many of the NIRDP Measures primarily those delivering societal benefits and having a major effect on the fabric and quality of rural life. Progress under these Measures had been slow and the anticipated improvements in the quality of rural life had not been realised. Additionally Bovine viral diarrhoea virus (BVD) was endemic in Northern Ireland dairy and beef herds with surveys indicating that more than 98% of herds contained cattle that had been exposed to the virus at some point in their lives, with around two thirds of herds having evidence of current or recent active circulation of the virus. The programme was amended to introduce training for farmers on BVD as part of the Farm Family Options Skills scheme (Measure 1.1).
145. Amendments in Modification 10 in 2013 were carried out as the result of an update of the Programme Mid Term Evaluation. Additional National financing in Axis 1 enabled the Managing Authority to address the increasing need for farmers in Northern Ireland to improve competitiveness through on-farm investment. The amendments also included a broadband scheme targeted at those rural dwellers that had no access to affordable broadband provision.
146. Amendments included in the final two modifications allowed the allocation of funds in line with expected demand towards the end of the programme and, in so doing, maximised the possible benefit of the resources and the Programme.

Closure

147. The total European allocation to the 2007-2013 Programme was approximately €329.5m, made up of funds from the EAFRD, Voluntary Modulation and New Challenges. The final eligible spend under the Programme was €329.3m, or 99.92% of the allocation available.

Conclusion

148. Although some of the schemes across the programme did not meet all of the output targets set out it is clear that there was a high level of scrutiny and active involvement from Measure managers and stakeholders along the way resulting in numerous changes to the programme resource allocations and scheme criteria in order to maximise the benefit of the programme. Against the backdrop of challenging economic circumstances it is clear that the objectives of the programme were kept in focus while every effort was made to ensure the most efficient use of the resources. The high level of scrutiny and management of financial resources is evidenced by the final outturn position of almost 100% drawdown of EU funding.

To what extent has the Department and its delivery agents met their responsibilities in relation to the implementation of Development Path Analysis (DPA)?

149. Development Path Analysis (DPA) is a tool that helps to transform patterns of economic and social development. In the past, it was often the case that development was pursued at the expense of the natural environment. Within the Northern Ireland structural funds programmes, DPA was the main tool for helping to guide the region toward a more environmentally sustainable path of development. It was also the main tool for monitoring the extent to which this transformation was taking place.

The Development Paths

150. DPA is based on an assumption that certain patterns of development, or “development paths,” are more environmentally sustainable than others and that regions have choices about which path to pursue. The tool recognises six development paths.

Path A: Actions that promote activities that simply meet environmental regulations.

Path B: Actions that clean up the mess from past activities or actions that promotes physical regeneration.

Path C: Actions that put in place environmental infrastructure to reduce the negative environmental impact of development activities.

Path D: Actions that help organisations to meet increasing environmental standards.

Path E: Actions that improve the resource efficiency (“eco-efficiency”) of existing activities.

Path F: Actions that support, as well as encourage, new types of activity or behaviour using fewer environmental resources, or producing less pollution, than existing activities in the area.

151. The objective of the tool is to help shift activity away from Path A and toward activity under Path F. Path A is activity that simply meets minimum environmental regulations and, therefore, makes a minimal contribution to environmental sustainability. Path F makes a significant contribution; it is activity that pursues environmental protection at the same time as it pursues economic and social development. The paths in between are paths that mitigate the impact of existing activity in some way.
152. During Project Selection Implementing Bodies had to apply DPA to every project that was submitted under their Measure. Projects had to be assigned to the development path that most closely matched the type of activity the project represented. During assignment, consideration was to be given to both the direct and indirect environmental impacts that were likely to result from the activity. This was to help arrive at a reasonable judgement about the most appropriate path. Each project was to be given only one path, and this path had to reflect the balance of activities carried out under the project and their attendant environmental impacts.
153. The path was recorded on the project categorisation form for DPA along with a description of the project including project objectives and expected outputs as well as a statement of the rationale for selecting that particular path. The DPA assignment was then supposed to form part of the information that was considered during project selection.
154. Tables 1 and 2 below show the actual numbers of approved applications for each Measure which were entered onto the database at two points in time, September 2012 and October 2016.
155. In the case of Axis 1 the following points should be noted:
- There is no sign of improvement in the spread of the paths from A to F over the four year period.
 - The overall Axis figures are reasonably similar over the four years, with evidence of an improvement in the balance between Paths C and D, with a

positive move towards lower incidence of Path C and higher incidence of Path D.

- In the cases of Paths B and C, at the overall Axis level, the figures recorded at the two snapshot periods in 2012 and 2016, are close.

Table 1: DPA Analysis of all approved applications for Axis 1

Axis 1	Date	% of projects assigned to each DPA Path						
		A	B	C	D	E	F	No Path recorded
Measure 1.1	10.09.12	98	-	2	<1	-	-	<1
	10.10.16	98		<1	<1			<1
Measure 1.2	10.09.12	69	-	5	-	26	-	-
	10.10.16	75		4		20	<1	
Measure 1.3	10.09.12	19	1	27	6	37	10	<1
	10.10.16	17	<1	18	22	36	7	<1
Measure 1.4	10.09.12	100	-	-	-	-	-	-
	10.10.16	100						
Axis 1	10.09.12	46	<1	18	4	24	6	<1
	10.10.16	47	<1	11	13	24	4	<1

156. In the case of Axis 3 the following points are clear:

- Four of the six Axis 3 Measures show a reduction in the number of approved projects with a designation of Path A over the four year period;
- Only one of the Axis 3 Measures shows an increase in the number of projects with a designation of Path F over the four year period;
- At the overall Axis level the figures at the two snapshot periods are reasonably close;

Table 2: DPA Analysis of all approved applications for Axis 3

Axis 3		% of projects assigned to each DPA Path						
		A	B	C	D	E	F	No Path recorded
Measure 3.1	10.09.12	51	12	9	4	14	10	<1
	10.10.16	48	12	8	4	17	12	<1
Measure 3.2	10.09.12	61	9	11	6	8	4	1
	10.10.16	67	7	9	5	7	3	
Measure 3.3	10.09.12	57	19	14	1	7	2	1
	10.10.16	59	22	11	<1	6	<1	
Measure 3.4	10.09.12	66	15	8	2	2	6	1
	10.10.16	63	23	6	1	3	3	
Measure 3.5	10.09.12	57	32	8	3	-	-	<1
	10.10.16	45	50	4	1			<1
Measure 3.6	10.09.12	41	43	10	-	2	5	-
	10.10.16	31	54	9		3	4	
Axis 3	10.09.12	57	15	10	4	9	6	1
	10.10.16	55	20	8	3	9	5	2

157. If a DPA result was not considered to be satisfactory, Implementing Bodies were supposed to think about how the Measure might be redesigned to attract more projects from a different path. For instance, they could have decided to increase the profile of environmental sustainability in promotional material or to offer ideas to prospective applicants for more environmentally sustainable projects.
158. However it may not have been possible for all Measures, (particularly within Axis 1) to adjust their design in order to attract more applications that corresponded to the desired path(s). For example, a Measure involving training or benchmarking could struggle to increase the degree to which their Measure was helping to shift economic development toward more environmentally sustainable development.
159. The Environment Sub Group of the NIRDP Monitoring Committee did raise issues with the suitability of the DPA and suggested that alternative ways of measuring environmental impact of projects funded under the Programme should be considered.

To what extent has the NIRDP contributed to supporting the participation of women and young people?

160. The Equality Impact Assessment (EQIA) carried out as part of the programme development clearly highlighted the need for a greater focus on the participation of women and young people. Findings in the MTE of the programme indicated that whilst the proportions of applicants from these groups appeared to be encouraging there was little or no evidence of active targeting of these groups. At this stage Measure 1.1 managers intended to actively engage with women and subsequently actions were taken under the Farm Family Options Scheme which included targeting women through the media, case study development and holding of women only events. Further to this, Measure 1.3 managers undertook to actively target young people and the scoring mechanism was amended for Tranches 2 and 3 of the scheme in favour of young farmers.
161. Analysis of Axis 1 Measures indicates that 4,712 women (9% of participants) were trained under Measure 1.1 with 35% of the women trained aged under 40. In total 13 (5%) of the participants who achieved a certificate, degree or diploma were women and 9 (70%) of these women were aged under 40. Further to this 4,510 women successfully ended a training activity related to agriculture and/or forestry and 33% of these were aged under 40 while 37% of the ICT trainees were women. This compares with women accounting for 24% of the farm labour force and seven per cent of farm managers.
162. In total 18,938 (36%) of the Measure 1.1 trainees were aged under 40 compared to four per cent of Northern Ireland farmers aged under 35 and 17% aged under 45.²³ Out of the 51,782 participants in activities related to agriculture, 34.5% of those trained were under the age of 40 and for those who achieved a certificate, degree or diploma, the figure was higher at 56.3% aged below 40.
163. There was also a contribution to supporting the participation of young people through the Farm Modernisation Programme under Measure 1.3. Successful applications for FMP show that the uptake by young farmers increased from 24% in Tranche 1 to 54% in Tranche 2, before falling to 44% in Tranche 3. These figures reflect the targeting of young farmers after Tranche 1.
164. There were a total of 1,194 jobs created in Axis 3 and the table below shows that women account for a third of the total. For Measure 3.4 however the picture is very different with women accounting for eighty-two per cent of the 66 jobs created. Of particular note under this Measure is the significant number of projects benefiting children and young people in the rural community – 147 out of the 228 supported actions. The population estimated to have benefited from improved facilities and services under this Measure is 274,711 and, whilst there is no evidence upon which to draw conclusions, it is likely that the focus of this Measure on basic services for

the rural economy lead to the type of job creation which may have been more suitable for women.

165. There was also a Departmental target of 5% of Axis 3 spend on projects benefiting children and young people and monitoring information shows that at the end of June 2013, 118 out of 914 completed projects have benefited this group with grant assistance at a total value of £4.62m which equates to 18% of total grant paid to completed projects. A further 143 letters of offer for further projects at a total grant value of over £26m were being implemented by promoters. Examples of these projects include day care facilities, pre-school and after school clubs, outdoor play and multi use recreational areas, cycle trails, equestrian facilities, suicide and self harm awareness training in communities and youth club space within community hall developments.

Table 1 – Gender breakdown of jobs created in Axis 3.

Measure	Male	%	Female	%	Total
3.1	283	70.0	121	30.0	404
3.2	467	69.1	209	30.9	676
3.3	27	58.7	19	41.3	46
3.4	12	18.2	54	81.8	66
3.5	0	0	2	100.0	2
Total	789	66.2	405	33.8	1,194

166. Whilst the figures available for the participation of women and young people in the programme seem to be encouraging there is very limited data on which to make an appropriate assessment. It will be important that steps are taken to ensure the collection of monitoring data which allows proper analysis of scheme participation in the future and that actions are taken at the outset of any new schemes to include all potential beneficiaries.

7.0 Conclusions and Recommendations

7.1 Coherence in the Programme

Axis 1: Improving the competitiveness of the agricultural and forestry sector

1. The needs identified by policy makers for Axis 1 largely reflected the competitive situation facing Northern Ireland's agricultural and forestry sectors at the beginning of the programme. The selection of Measures and objectives chosen under Axis 1 were appropriate as supported by the findings from the key informant workshop. Some additional Measures that could have been incorporated were Measure 112 (Setting up of young farmers and developing a dynamic younger generation of farmers) and Measure 113 (Early retirement of farmers and farm workers), although there were issues with inheritance tax and other expenses that would have limited the success of these Measures.
2. The evaluation evidence shows that overall the four Measures chosen to improve competitiveness were coherent in the aim of increasing competitiveness in the sector and supported the other NIRDP programme level strategic objectives. In particular Vocational Training and Information Actions and the Farm Modernisation Programme played an important role in supporting Axis 2 environmental objectives and Axis 3 diversification and quality of life objectives.

Axis 2: Improving the environment and the countryside

3. The needs identified for Axis 2 by the policy makers largely reflected the situation in Northern Ireland at the outset of the programme. Although, feedback from the key informants suggested more emphasis should have been placed on the environmental threat from the spread of increased tree, plant and animal disease and the spread of non-native species. The objectives chosen by the policy makers at the beginning of the programme to meet these needs were largely in keeping with Northern Ireland's environmental situation at the time. However, feedback from some key informants suggested the failure to set an objective for Natura 2000 sites led to Measure 213 and Measure 224 not being included in the programme for the protection of Natura 2000 areas. This led to many Natura 2000 areas being excluded from environmental protection under the programme, in particular new sites designated after 2006.
4. The inclusion of the Less Favoured Area Compensation Allowance (LFACA) Scheme was also viewed by key informants as an easy option for environmental management. An alternative option would have been to incorporate protection of the less favoured area land into the agri-environment schemes and prioritising the protection of these areas in the application process and selection process.

5. The evaluation evidence for Axis 2 shows overall that there was a certain amount of coherence between the Measures chosen to improve the three priority areas in the EU strategic objective for Axis 2. The Measures chosen placed large areas of Northern Ireland agricultural land under environmental management with each Measure targeting different habitats/land types for protection. There is some debate as to whether the choice of these Measures yielded the greatest possible environmental outcome with the LFACA scheme in particular seen as being included more for socio-economic outcomes. The LFACA scheme did however contribute to both the objectives for Axis 1 and Axis 3 by maintaining farming in less favoured areas, supporting the uptake of training schemes, uptake of modernisation schemes and helping to create sustainable rural communities. The agri-environment programme and forestry Measures contributed to the Axis 3 objectives by supporting rural areas as attractive places to live and to visit for tourism and leisure.

Axis 3: Quality of life in rural areas and diversification of the rural economy

6. The needs identified for Axis 3 were reflective of the rural context at the time in Northern Ireland. Although, feedback from key informants suggested greater emphasis should have been placed on the need to improve transport and communication links, especially in western and southern parts of Northern Ireland. Feedback also suggested more emphasis should have been placed on the need to tackle issues of rural segregation, to end dual service provision and the need for economic investment to attract higher paid jobs to rural areas.
7. The objectives chosen to meet the needs for Axis 3 were all broadly appropriate but more specific objectives should have been set for North/South/Transnational Co-operation, training, encouraging uptake of ICT, developing cross community services and renewable energy projects. Key informant feedback also suggested inadequate childcare and eldercare facilities were not the only barriers for women entering the labour market and the actions taken should have had a broader scope.
8. The Measures chosen to meet the needs and objectives identified for Axis 3 were all appropriate in the Northern Ireland context. However, key informants suggested Measure 331 (Training and information for economic actors operating under Axis 3) should have been added as the training available outside the NIRDP programme did not meet the needs of the programme.
9. The Axis 3 Measures relate principally to diversification of rural economies and support for micro-enterprises, including tourism. Diversification helped resilience and may have supported faster growth than in situations where there was an overdependence on mainstream farming. The support of upgrading heritage and village renewal also enhanced the fixed infrastructure in which diversification could

take place. The rationale was identical to that for the farm sector, except it extended more widely to providing infrastructure for the whole rural economy.

10. The provision of basic services in rural areas and the conservation and upgrading of rural heritage can be seen not only as investments to support a better quality of life, but also as a means to support economic development. Such investments also created a more attractive living space to encourage younger people to stay in an area.
11. Specifically, Measure 3.1 was coherent with Axis 1 objectives by providing farm family members, who identified diversification of the farm business as an option, with support to put their business ideas into practice. This increased farm incomes and contributed to competitiveness through more disposable income to invest in farm modernisation. Axis 3 also provided coherence with Axis 2 objectives by investing in infrastructure to improve access for visitors to the countryside for leisure purposes.

16.2 Conclusions

12. The following section discusses the outcomes and problems encountered and the main conclusions according to the three main themes of:
 - i. improving the competitiveness of agriculture and forestry sector by supporting restructuring, development and innovation,
 - ii. improving the environment and the countryside by supporting land management, and
 - iii. improving the quality of life in rural areas and encouraging diversification of economic activity.

Improving competitiveness

13. Training and information actions were successful interventions due to stakeholder consultations identifying the relevant needs for the farming sector. Competitiveness was improved through increased outputs, efficiency savings and creating long-term sustainability of the farm business.
14. A flexible approach to the implementation of the PMG Scheme resulted in a successful intervention with investments improving competitiveness in the agri-food sector through increasing total sales, export sales and adding £17.3m in Gross Value Added to the sector. The scheme was restricted to micro, small, medium and intermediate size enterprises. This maximised the benefits for the sector through providing capital support for farm businesses to move into processing and increasing the number of primary producers supplying to larger processors.
15. The staggered implementation approach to Modernisation of Agricultural holdings through FMP and METS helped both schemes have a positive impact on the

competitiveness of farm business through providing support to farmers to invest in capital to make efficiency savings and increase outputs.

16. The Modernisation of Agricultural Holdings, Short Rotation Coppice Scheme (SRC) supported farmers with the costs to plant a renewable energy crop contributing to competitiveness by providing farmers with an extra income.
17. The Supply Chain Development Programme resulted in 35 enterprises introducing new products and/or techniques and increased Gross Value Added in the agri-food sector by £1.8m.

Improving the environment and the countryside

18. The LFACA scheme placed on average 74% of Northern Ireland's Less Favoured Area (LFA) and 54% of its grass and grazing land under environmental management agreements.
19. The Agri-Environment programme contributed to improving the environment and the countryside by placing on average 43% of Northern Ireland's total agricultural land per annum under environmental management agreements.
20. The contribution that the Forestry Measures had on improving the environment and countryside is lower than anticipated at the outset of the programme due to low uptake. In total the forestry schemes supported 1,964 ha of planted and existing forest under management agreements.
21. The land management agreements committed beneficiaries to observe cross-compliance and the relevant good practice guidelines. They also required beneficiaries to control fertiliser spreading, maintain stocking levels, manage waste and protect/enhance habitats in line with EU and UK regulatory requirements for protecting biodiversity and the landscape.
22. Water quality, especially groundwater, has shown some improvement over the course of the programme. The NIRDP has contributed to this improvement through a coordinated approach to water management in the farming sector. The agri-environment scheme committed farmers to using methods that reduced agricultural pollution of watercourses from chemical fertilisers, pesticides and herbicides.
23. The programme contributed to mitigating climate change by:
 - Reducing greenhouse gas emissions through controlling the use of fertilisers, training farmers to improve their fertiliser spreading practices/techniques and supporting farmers to invest in Manure Efficiency Technologies.
 - Supporting the production and processing of lower CO₂ gas emitting renewable energy sources.

- Increasing carbon capture through the planting of an additional 2,380 ha of trees, the planting of hedges and by increasing the extent of heather moorland and raised bog.

Improving the quality of life and encouraging diversification

24. Encouragement of on-farm diversification into non-agricultural activities, off-farm diversification and re-skilling lead to increased employment in the wider rural economy. The support that was provided for the creation and development of micro-enterprises in the broader rural economy also contributed to increased economic activity rates.
25. Rural tourism which built on the sustainable development of Northern Ireland's natural resources was boosted under the Programme, increasing the appeal of rural areas as places to both live in and visit.
26. Investment in the Department of Enterprise, Trade and Investment's Broadband project ensured connections to improved Broadband services for rural businesses and rural dwellers.
27. Funding was obtained for the regeneration of villages, other rural settlements and their surrounding areas. The development of integrated action plans and integrated village initiatives was also encouraged and supported. These initiatives helped to improve economic prospects, community relations and the quality of life.
28. The maintenance, restoration and upgrading of the natural and built heritage was also supported, preserving local heritage and enhancing the aesthetic value and appeal of rural areas.

Problems encountered

29. Despite the fact that there was clear evidence of many successful outcomes associated with the RDP interventions, it is also the case that there was room for improvement and in many cases outcomes were not optimised.

Communications, Promotion and targeting

30. Across the Programme and in particular the Axis 3 measures, there were serious problems with unacceptably high drop-out rates. This was due to a combination of reasons but in particular there was a lack of understanding by the applicant as to the eligibility requirements. Similar problems were also encountered by the PMG scheme under Axis 1.
31. There was lower interest in the PMG scheme in the west of Northern Ireland compared to the east. The west of Northern Ireland accounted for 69% of NI's

agricultural businesses and 50% of its manufacturing businesses but only 33% of the agri-food processing businesses. Therefore an opportunity may have been missed to devote extra resources to scheme promotion in the west and develop the area's potential for agri-food sector growth.

32. The recruitment process through the organised feeder events for Supply Chain Development Groups proved unsuccessful with only 3 groups recruited. Opportunities were missed to include stakeholders and key interest groups that could have resulted in greater recruitment. It is important that those recruited for the supply chain group were targeted and matched according to their skill sector; this is particularly the case with facilitators and mentors. There was also evidence to suggest that the roles of mentor and facilitator were at times overlapping.

Guidance, procedures and direction

33. There was no mechanism to quickly filter ineligible applications which resulted in lot of processing/administration time spent, and effectively wasted, on these applications before they were declined. In addition there did not seem to be a correlation between the complexity of application procedure and the level of funding being applied for.
34. Guidelines for the programme were not always released in a timely way meaning that staff were not best placed or appropriately trained to advise applicants. In addition the guidelines could be quite complicated and were also subject to several changes and updates which added to the burden.
35. It may have been beneficial if more consideration had been given to how best to manage the opening and closing of calls for applications. For example, whether staggered or open-ended calls for some of the Measures (especially the smaller ones) would have been beneficial instead of applying a "one-size fits all."
36. LAGs, established using LEADER methodology, were to promote "bottom up" community-led delivery and to have delegated powers of strategy development. In practice however, the LAGs became more reactive than proactive with assessing and approving projects becoming the overwhelming remit of the group probably to the detriment of its role of strategic development and championing of local priorities.
37. Furthermore, the additional overseeing body, the JCC, added to the timescale for processing and approval of projects. There also seems to have been a lack of clarity and demarcation of roles between all of the various tiers involved under the LEADER approach. Support for the LAGs was also resource intensive from DARD's perspective. All of this indicates there may have been a training or up-skilling requirement that was not realised or met.

38. It was intended that the Programme would provide opportunities for LAGs to work together to explore potential co-operation projects through the preparation of pre-development studies. However, such projects are resource intensive and in reality co-operation activity was lower than anticipated.

Monitoring and Evaluation

39. There is a lack of quantified evidence that measured the extent to which the Programme has contributed to; protecting and enhancing Northern Ireland’s natural resources and landscape, including Biodiversity, HNV farming and forestry; water; and climate.

7.3 Recommendations

This section sets out the recommendations for the future delivery of NIRDP funding. The recommendations have been grouped under the following themes:

- Communication, Promotion and Targeting
- Guidance, procedures and direction
- Monitoring and Evaluation

Communication, Promotion and Targeting	
Recommendation 1	A consistent and structured approach should be taken by DAERA and Delivery Agents to raise awareness of the programme and ensure eligibility requirements are fully publicised and understood.
Recommendation 2	Managing Authorities should consider the use of animation funds for LEADER Local Action Groups (LAGs) to help with the development of quality applications.
Recommendation 3	In order to avoid ineligible applications it is recommended that DAERA host workshops with potential applicants prior to, or soon after the opening of calls.
Recommendation 4	Resources should be targeted to specific areas if there was evidence of lower uptake (as in the case of the agri-food processing schemes in the West of Northern Ireland.)
Recommendation 5	Consideration should be given to carrying out needs analyses to identify gaps in the market place that greater co-operation in the agri-food supply chain could eradicate.

Recommendation 6	Supply chain group facilitators and mentors should have a broad range of skills and be matched to groups accordingly.
Recommendation 7	There should be clear demarcation between the roles of facilitator and mentor. (A facilitator can also be a mentor with another group providing all the conditions are met.)
Recommendation 8	Greater engagement and feeder events should take place between DAERA and stakeholders focusing on areas with potential for greater co-operation.
Guidance, procedures and direction	
Recommendation 9	LAGs should be actively involved in the development of local strategies and adopt a consistent approach to reviewing and amending these, as necessary.
Recommendation 10	LAGs should have more authority regarding budgets and themes and be more flexible in relation to changes in projects.
Recommendation 11	LAGs should report through the eleven district council structures and the Joint Council Committee structure should be removed.
Recommendation 12	Within LEADER there needs to be greater clarity of roles and responsibilities and provision of appropriate training to equip all involved to carry out their roles effectively.
Recommendation 13	DAERA should set a limit for the amount of the time during which intensive support will be available to the LAGs.
Recommendation 14	Consideration should be given to greater use of “staggered calls” for applications as well as open-ended calls for some of the smaller Measures.
Recommendation 15	Ideally guidelines for the programme should be released before the first calls for applications to enable staff to be trained if required and be in a position to instruct applicants correctly.
Recommendation 16	Guidelines should be kept as simple as possible and changes/updates kept to a minimum.
Recommendation 17	Administration and documentation in relation to the programme, especially application forms, should be as straightforward as possible while ensuring the relevant and appropriate data is collected. In the case of the LAGs, forms

	should also link to the local strategies.
Recommendation 18	A consistent system of checks, (such as ensuring that statutory approvals are in place or that match funding is available), should be implemented to ensure that speculative, ineligible applications are quickly identified and rejected.
Recommendation 19	Consideration should be given to introducing simplified application procedures for smaller projects.
Recommendation 20	DAERA should take a more pro-active role in helping LAGs to develop co-operation projects which could be pursued early in the programme.
Recommendation 21	LAGs should have clear plans for networking and cooperation activity embedded in their local strategies.
Recommendation 22	Greater use should be made of online training across the programme and the use of incentives such as eligibility for entry to schemes or additional selection points to increase uptake.
Recommendation 23	Consideration should be given to offering greater incentives to encourage older farmers to retire and younger farmers to enter the industry.
Recommendation 24	DAERA should consider developing a database for Frequently Asked Questions (FAQs).
Recommendation 25	Checks should be made to ensure that larger companies cannot secure investment outside NIRD funding.
Recommendation 26	The scoring process for capital grant awards in the agri-food processing sector should continue to ensure the best outcome for agricultural producers and rural communities in addition to the processors.
Recommendation 27	Afforestation financial support should be increased to a level that will encourage farmers to convert large areas of land to forestry use should the current levels of support set out by the EU for 2014-2020 prove insufficient.
Recommendation 28	Higher rates of support should be offered for coniferous tree planting.
Recommendation 29	Financial support should only be available for farmers with land in Severely Disadvantaged Areas and this rate should be monitored to ensure overcompensation does not occur.

Monitoring and Evaluation

Recommendation 30	Targets should be set for land under agri-environment and species specifically targeted by agri-environment management agreement actions.
Recommendation 31	Baselines within agri-environment should be taken at start and end of programme period for land being managed and not being managed to enable assessment of impact.
Recommendation 32	Recommendations 30 and 31 should also be applied to land under High Nature Value (HNV) management agreements.
Recommendation 33	There should be consensus reached and guidance issued from DAERA at the start of the Programme on definitions to be used and how indicators are to be measured, for example, what is the definition of a 'job created'.
Recommendation 34	The ensure that consistent, high quality information and coverage of EU monitoring and evaluation requirements is available for future programme evaluations comprehensive guidance should be issued on the content and approach for evaluations of measures, schemes and LAGs and that proposals for these are systematically checked.
Recommendation 35	Participant/beneficiary survey questionnaires should have consistent elements which can be aggregated. Where survey questionnaires are used to establish a scheme's performance against the EU common impact indicators, questions must be included that specifically refer to the indicators.
Recommendation 36	It is recommended that DAERA develop an effective means of assessing and monitoring the environment Impact of individual projects and the programme.

Appendices

Appendix 1 – Government Departments following reorganisation in May 2016



Appendix 2 - List of Evaluation Questions and judgment indicators (where applicable).

Programme Evaluation Questions	Judgment Indicators
To what extent has the RDP contributed to the growth of the whole rural economy?	Lisbon objective; related impact indicators 1: Economic growth 3: Labour productivity
To what extent has the RDP contributed to protect and enhance natural resources and landscape including, biodiversity and HNV farming and forestry?	Community strategic priority, Biodiversity is also a Health Check objective; related impact indicators. 4: Farmland Bird Index 5: High Nature Value Farming and Forestry 6: Water quality
To what extent has the RDP contributed to the supply of renewable energy?	Health Check objective; related impact indicator 7: Increase in production of renewable energy
To what extent has the RDP contributed to improving the competitiveness of the agricultural and forestry sector?	Community strategic priority
To what extent has the RDP accompanied restructuring of the dairy sector?	Health Check objective
To what extent has the RDP contributed to climate change mitigation and adaptation?	Health Check objective
To what extent has the RDP contributed to improvement of water management (quality, use and quantity)	Health Check objective
To what extent has the RDP contributed to improving the quality of life in rural areas and encouraging diversification of the rural economy?	Community strategic priority
To what extent has the RDP contributed to introduction of innovative approaches?	Health Check objective
To what extent has the RDP contributed to creation of access to broadband internet (including upgrading)?	Health Check objective

To what extent has the NRN contributed to RDP objectives?	
To what extent has the TA contributed to RDP objectives?	
How efficiently have the resources allocated to the RDP been used in relation to achieving the intended outputs?	
Programme Specific Evaluation questions	
To what extent has the Department and its delivery agents met their responsibilities in relation to the implementation of Development Path Analysis (DPA)?	
To what extent has the NIRDP contributed to supporting the participation of women and young people?	
Axis 1 Evaluation Questions	
How and to what extent has the measure contributed to improving the competitiveness of the beneficiaries?	(Where relevant, the answers to this CEQ should be presented so that the contribution to the competitiveness of the agriculture and forestry sectors can be seen separately)
What other effects, including those related to other objectives/axes, are linked to the implementation of this measure (indirect, positive/negative effects on beneficiaries, non-beneficiaries, local level)?	
Axis 2 Evaluation Questions	
How and to what extent has the measure contributed to improving the environmental situation?	
What other effects, including those related to other objectives/axes, are linked to the implementation of this measure (indirect, positive/negative effects on beneficiaries, non-beneficiaries, local level)?	

Axis 3 Evaluation Questions	
How and to what extent has the measure contributed to the economic diversification of the beneficiaries?	
How and to what extent has the measure contributed to the improving the quality of life of beneficiaries?	
To what extent has the measure enhanced beneficiaries' capacities to improve economic diversification and quality of life in rural areas?	
What other effects, including those related to other objectives/axes, are linked to the implementation of this measure (indirect, positive/negative effects on beneficiaries, non-beneficiaries, local level)?	
Axis 4 (LEADER) Evaluation Questions	
To what extent has the RDP contributed to building local capacities for employment and diversification through LEADER?	Community strategic priority
To what extent have LAGs contributed to achieving the objectives of the local strategy and the RDP?	
To what extent has the Leader approach been implemented?	
To what extent has the implementation of the Leader approach contributed to improving local governance?	Community strategic priority

Appendix 3 – NISRA Telephone Surveys carried out 2016 for the Ex-Post evaluation

Questionnaire on Agri-Environment Schemes

Good morning/afternoon/evening. I am 'Name' from Central Survey Unit of the Northern Ireland Statistics and Research Agency. You have been involved in an agri environment scheme offered by DARD that supports biodiversity, enhances the landscape, and improves the quality of water, air and soil. We are speaking to people who have used the scheme to find out about what impact it has had. You should have received a letter letting you know we would be in touch.

Any information that you give will be treated in strict confidence. The results of the survey will not be passed to any other organisation other than Regional Reporting and EU Programmes Branch who are carrying out the survey on behalf of DARD.

1. How did you hear about agri-environment schemes (*Select all that apply*)
 - ❖ Newspapers
 - ❖ DARD website
 - ❖ Scheme booklet
 - ❖ Other farmers
 - ❖ Other (please specify)?

2. How do you rate the publicity surrounding the agri-environment schemes?
 - (i) Very good
 - (ii) Good
 - (iii) Neither good nor poor
 - (iv) Poor
 - (v) Very poor

3. Please rate your overall satisfaction with the application process (Scale 1-5)?
 - (i) Very satisfied
 - (ii) Satisfied
 - (iii) Neither satisfied or dissatisfied
 - (iv) Dissatisfied
 - (v) Very dissatisfied

4. What do you feel were the main benefits, if any, for you/your farm being in an agri-environment scheme? (*select all that apply*)
 - ❖ Helped me to farm in a more environmentally friendly way
 - ❖ Allowed me to protect habitats such as woodland, hay meadows and heather
 - ❖ Increased wildlife numbers on my farm
 - ❖ Helped me to protect watercourses from pollution
 - ❖ Helped me to make landscape improvements such as hedge and tree planting
 - ❖ Payments helped farm cash flows
 - ❖ Other (please specify)
 - ❖ None

5. To what extent has the scheme contributed to improving the environmental situation in the following:

	Improved	Stayed the same	Made it worse
Encouraged farming to be more environmentally friendly			
Provided protection to habitats such as woodland, hay meadows and heather			
Increased / protected wildlife			
Protected watercourses from pollution			
Encouraged tree planting and protected moorland			
Encouraged better soil quality			

6. Did the scheme contribute to improving the environmental situation in any other areas?

- ❖ Yes (please specify)
- ❖ No

7. Have you experienced any difficulties with the agri-environment scheme?

- ❖ Yes
- ❖ No

8. [If Q7=yes]

What was this? <open text string>

9. How helpful do you feel the training and support that you received was in implementing your agri-environment agreement?

- (i) Very helpful
- (ii) Helpful
- (iii) Neither helpful/unhelpful
- (iv) Unhelpful
- (v) Very unhelpful

10. Have you changed your farming activities and practices as a result of having been in the scheme?

- ❖ Yes
- ❖ No

11. [If Q10=yes]

How have you changed your farming activities? <open text string>

12. [If Q10=no]

Why have you not changed your farming activities? <open text string>

13. Would you wish to join a future agri-environment scheme?

- ❖ Yes
- ❖ No

14. [If Q13=no]

Why not? <open text string>

15. Do you think **existing** agri-environment schemes could be improved?

- ❖ Yes
- ❖ No

16. [If Q15=yes]

How could existing agri-environment schemes be improved?

17. If you could suggest one new or additional option / measure for a **future scheme**, what would it be? <open text string>

18. Would you have carried out any of these activities if you had not received the funding?

- ❖ Yes
- ❖ No

19. What do you believe would have been the outcome for your farm if you had not joined the scheme? (code 1 only)

- (i) I would not have changed my previous farming practices
- (ii) I would have carried out some of the environmental work I completed under the scheme but not all.
- (iii) I would have intensified my farming practices and only adhered to cross compliance requirements.
- (iv) I would have carried out all the environment work I completed under the scheme anyway without payment
- (v) Other (please specify)

Forestry Survey Questionnaire

Successful applications

Good morning/afternoon/evening. I am 'Name' from Central Survey Unit of the Northern Ireland Statistics and Research Agency. You have been involved in a woodland grant scheme offered by DARD that encourages the creation of new woodlands and the management of existing woodlands by providing grant aid towards the cost of the work. We are speaking to people who have used the scheme to find out about what impact it has had. You should have received a letter letting you know we would be in touch. Any information that you give will be treated in strict confidence. The results of the survey will not be passed to any other organisation other than Regional Reporting and EU Programmes Branch who are carrying out the survey on behalf of DARD.

1. Was your main reason for planting woodland on your land to... (Code 1 answer)
 - Provide somewhere for people to walk
 - Provide an income for you or future generations
 - Provide a place for wildlife to live
 - Capture carbon and offset our carbon footprint
 - Enhance your property or farm
 - Other (please specify)

2. Did you use a Forestry Agent to carry out your project
 - Yes
 - No?

3. [If Q2=yes]
What were the reasons for using an agent? (Code all that apply)
 - (i) Lack of specific knowledge on scheme processes
 - (ii) Lack of specific technical forestry knowledge
 - (iii) Lack of available time to manage this project
 - (iv) Other (please specify)

4. Since planting have you noticed changes in wildlife on your land
 - An increase
 - No difference
 - A decrease

5. [If Q4=increase]
Which of the following living things have increased (code all)
 - Insects
 - Birds
 - Mammals e.g. Hares, red squirrel
 - Frogs
 - Wild plants
 - Fungi
 - Other (please specify)

6. What benefits does/will your woodland provide you with (code all)
 - Somewhere to walk and exercise
 - Somewhere to unwind from the stress of modern life
 - Improves the landscape

- Somewhere for wildlife to live
 - Wood / timber for own use or processing
 - Captures carbon and offsets your carbon footprint
 - Other (please specify)
7. What benefits do you believe your woodland provides the wider rural community with (code all)
- Somewhere to walk and exercise
 - Somewhere to unwind from the stress of modern life
 - Improves the landscape
 - Somewhere for wildlife to live
 - Wood / timber for own use or processing
 - Captures carbon and offsets our carbon footprint
 - Other (please specify)
8. Do you think that the project has increased the capital value of your property?
- Yes,
 - No
9. Did the woodland project deliver the benefits that you had planned?
- Yes
 - No
10. [If Q9=No]
Was it due to (code all that apply)
- Poor advice from the Department
 - Poor advice from your agent
 - Higher than expected costs
 - Woodland affected by a tree disease
 - Other (please specify)
11. Where did you hear about the Woodland Grant scheme (Code all)
- Newspapers
 - DARD website
 - Scheme booklet
 - Forestry Agent
 - Other landowner
 - Other (please specify)
12. How do you rate the publicity surrounding the Woodland Grant schemes?
- (i) Very good
 - (ii) Good
 - (iii) Neither poor nor good
 - (iv) Poor
 - (v) Very Poor
13. Do you think the Woodland scheme could be improved in the following areas?
Please answer Yes/No.

Better availability of advice on woodland establishment and management e.g. where and what tree species to plant, the risks to your young woodland and how to manage them.	YES	NO
Woodland establishment grant support better matched to individual woodland projects costs i.e. as opposed to standard rates of payment you received for establishment of your woodland.	YES	NO
Making the annual premia payment grant support the same for farmers and non-farmers i.e. if you described yourself as a non-farmer you will have received a lower level of annual premia compared to a farmer	YES	NO
Reduce the commitment time to retain your new woodland	YES	NO
Increase the commitment time to retain your new woodland	YES	NO
Better integration of the forestry scheme with other DARD schemes e.g. Countryside Management schemes	YES	NO

14. Are there any other ways the scheme could be improved?

- Yes (please specify)
- No

15. Please rate your overall satisfaction with the application process...

- (i) Very satisfied
- (ii) Satisfied
- (iii) Neither satisfied or dissatisfied
- (iv) Dissatisfied
- (v) Very dissatisfied

Forestry Survey Questionnaire

Unsuccessful applications

Good morning/afternoon/evening. I am 'Name' from Central Survey Unit of the Northern Ireland Statistics and Research Agency. You applied for a woodland grant scheme offered by DARD that encourages the creation of new woodlands and the management of existing woodlands by providing grant aid towards the cost of the work. We are speaking to all those who applied for scheme, including those who did not go ahead with the scheme to find out about what impact it has had. You should have received a letter letting you know we would be in touch. Any information that you give will be treated in strict confidence. The results of the survey will not be passed to any other organisation other than Regional Reporting and EU Programmes Branch who are carrying out the survey on behalf of DARD.

1. Was your main reason for wanting to plant woodland on your land to (Code 1 only)
 - Provide somewhere for people to walk
 - Provide an income for you or future generations
 - Provide a place for wildlife to live
 - Capture carbon and offset our carbon footprint
 - Enhance your property or farm
 - Other (please specify)

2. Why did you decide not to proceed with your project ? (Tick all that apply)
 - I was investigating a range of alternative land use options at the time of my application and decided that woodland was not what I wanted.
 - Insufficient advice about the Woodland Grant Scheme/Farm Woodland Premium Scheme process
 - Insufficient advice about the technical aspects of creating and managing woodland
 - The financial support was insufficient and my financial contribution too high
 - Length of commitment for the Woodland Grant Scheme/Farm Woodland Premium Scheme was too long
 - Length of commitment for the Woodland Grant Scheme/Farm Woodland Premium Scheme was too short
 - Loss of agricultural revenue on the land which I thought of planting
 - My application was rejected by the department
 - Other (please specify)

3. Have you noticed changes in wildlife on your land after your project didn't proceed
 - An increase
 - No difference
 - A decrease

4. [If Q3 = increase]
Which of the following living things have shown an increase (tick as appropriate)
 - Insects
 - Birds
 - Mammals e.g. Hares, red squirrel
 - Frogs
 - Wild plants
 - Fungi
 - Other (please specify)

5. How has not receiving any funding impacted on you/your project? (tick as appropriate?)
 - I did nothing
 - I went ahead without any grant funding
 - I went ahead with other funding e.g Countryside Management, Woodland Trust
 - I have increased my management input on the land for another purpose
 - I have reduced my management input on the land for another purpose
 - I have sold the land
 - Other (please specify)

6. Where did you hear about the Woodland Grant Scheme/ Farm Woodland Premium Scheme (Code all)
 - Newspapers
 - DARD website
 - Scheme booklet
 - Forestry Agent
 - Other landowner
 - Other (please specify)

7. How do you rate the publicity surrounding the Woodland Grant schemes?
 - (i) Very good
 - (ii) good
 - (iii) Neither good nor poor
 - (iv) poor
 - (v) Very poor

8. Would you consider creating woodland or more woodland in future under a different forestry grant scheme?
 - Yes
 - No

9. Please rate your overall satisfaction with the application process
 - (i) Very satisfied
 - (ii) Satisfied
 - (iii) Neither satisfied or dissatisfied
 - (iv) Dissatisfied
 - (v) Very dissatisfied

Measure 1.3 Short Rotation Coppice Successful Applicants

1. Have you retained the Short Rotation Coppice Plantation Yes/No?
 If the answer is Yes ask questions 2 and 3.
 If the answer is No ask question 4.

2. If the answer is Yes to Question 1, is the distance to your largest market :
 - 25 miles or less from your farm?
 - Greater than 25 miles from your farm?

3. If the answer is Yes to Question 1, is your largest market for :
 - Domestic heating
 - Municipal heating

- Commercial heating
 - Further industrial processing
 - Other (please specify)
4. If the answer is No to question 1. Was it because (Tick as applicable)
- The market failed to materialise.
 - You converted the land back to agricultural use.
 - You converted the land to another land use
 - Other reason please state
5. Did support for Short Rotation Coppice have a financially positive impact on your business? Yes/No
6. Did you source an energy market for the crop? Yes/No
7. How satisfied were you with the technical support you received from the Department?
- (i) Very satisfied
 - (ii) Satisfied
 - (iii) Neither satisfied or dissatisfied
 - (iv) Dissatisfied
 - (v) Very dissatisfied
8. How satisfied were you with the technical support you received from your agent / contractor?
- (i) Very satisfied
 - (ii) Satisfied
 - (iii) Neither satisfied or dissatisfied
 - (iv) Dissatisfied
 - (v) Very dissatisfied
9. Where did you hear about the Short Rotation Coppice Scheme?
- Newspapers
 - DARD website
 - Scheme booklet
 - Forestry Agent
 - Other landowner
 - Other (please specify)
10. How satisfied were you with the publicity surrounding the Short Rotation Coppice Scheme?
- (vi) Very satisfied
 - (vii) Satisfied
 - (viii) Neither satisfied or dissatisfied
 - (ix) Dissatisfied
 - (x) Very dissatisfied
11. Please rate your overall satisfaction with the application process...
- (vi) Very satisfied
 - (vii) Satisfied

- (viii) Neither satisfied or dissatisfied
- (ix) Dissatisfied
- (x) Very dissatisfied

Appendix 4 – EU and Equivalent NIRDP Measure Codes

EU measure Code	Measure Description	Programmed in NIRDP	NIRDP Measure Code
111	Vocational training, information actions, including diffusion of scientific knowledge and innovative practices for persons engaged in the agricultural, food and forestry sectors	Yes	1.1
112	Setting up of young farmers	No	
113	Early retirement of farmers and farm workers	No	
114	Use by farmers and forest holders of advisory services	No	
115	Setting up of farm management, farm relief and farm advisory services, as well as forestry advisory services	No	
121	Farm modernisation	Yes	1.3
122	Improving the economic value of the forest		
123	Adding value to agricultural and forestry products	Yes	1.2
124	Cooperation for development of new products, processes and technologies in the agricultural and food sector	Yes	1.4
125	Improving and developing infrastructure related to the development and adaptation of agriculture and forestry	No	
126	Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention actions	No	
131	Helping farmers to adapt to demanding standards based on Community legislation	No	
132	Supporting farmers who participate in food quality schemes	No	
133	Supporting producer groups for information and promotion activities for products under food quality schemes	No	
141	Supporting semi-subsistence farms undergoing restructuring	No	
142	Setting up of producer groups	No	
211	Natural handicap payments to farmers in mountain areas	No	
212	Payments to farmers in areas with handicaps, other than mountain areas	Yes	2.1
213	Natura 2000 payments and payments linked to Directive 2000/60/EC	No	

214	Agri-environmental payments	Yes	2.2
215	Animal welfare payments	No	
216	Support for non-productive investments	Yes	2.2B
221	First afforestation of agricultural land	Yes	2.3A
222	First establishment of agro-forestry systems on agricultural land	Yes	2.3B
223	First afforestation of non-agricultural land	Yes	2.3C
224	Natura 2000 payments	No	
225	Forest environment payments	Yes	2.4A
226	Restoring forestry potential and introducing prevention actions	No	
227	Support for non-productive investments	Yes	2.4B
311	Diversification into non-agricultural activities	Yes	3.1
312	Support for the creation and development of micro-enterprises	Yes	3.2
313	Encouragement of tourism activities	Yes	3.3
321	Basic services for the economy and rural population	Yes	3.4
322	Village renewal and development	Yes	3.5
323	Conservation and upgrading of the rural heritage	Yes	2.2 and 3.6
331	Training and information for economic actors operating in the fields covered by Axis 3	No	
341	Skills acquisition and animation with a view to preparing and implementing a local development strategy	No	
41	Local development strategies	No	
411	Competitiveness	No	
412	Environment/land management	No	
413	Quality of life/diversification	Yes	4.1
421	Transnational and inter-regional cooperation	Yes	4.2
431	Running the local action group, skills acquisition, animation	Yes	4.3
511	Technical assistance.	Yes	5.1

Appendix 5 – Summary of Programme Modifications

Version Number / Approval Date	Main Amendments
1 24/7/2007	<ul style="list-style-type: none"> • Original Version of Programme approved by EC.
2 5/12/2008	<ul style="list-style-type: none"> • Allocation of voluntary modulation funding within the Programme.
3 09/7/2009	<ul style="list-style-type: none"> • Allowing additional national funding for Manure Efficiency Technology Scheme. • Changes to targets for Farm Modernisation Programme.
4 27/11/2009	<ul style="list-style-type: none"> • Allocation of New Challenges funding as part of the CAP Health Check. • Amendments to some co-financing rates. • Introduction of rural broadband measure. .
5 8/12/2009	<ul style="list-style-type: none"> • Changing LFA payment rates from euro to sterling. • Updating targets for LAG measures following the appointment of LAGs and approval of local development strategies.
6 30/6/2011	<ul style="list-style-type: none"> • Increasing grant aid rate for pre development phase of LAG cooperation projects. • Moving costs of Axis 1 delivery agent from Axis 1 to Technical Assistance. • Updating State Aid cover for rural broadband measure.
7 1/12/2011	<ul style="list-style-type: none"> • Adjustment of Axis 2 co financing rates. Changes to financial allocations of some Axis 1 and 2 measures.
8 6/2/2012	<ul style="list-style-type: none"> • Allowing purchase of second hand equipment under Processing and Marketing Grant scheme in certain circumstances. • Closure of Marketing Development Grant scheme. • Amendments to Agri Environment scheme indicators. • Clarifying categories of land excluded from Farm Woodland Premium Scheme.
9 3/9/2013	<ul style="list-style-type: none"> • Splitting of Forestry measures. • Increasing maximum aid intensity for Axis 3 strategic projects. • Allowing technical assistance to be used for preparatory costs of 2014-20 Programme. • Allowing for a BVD training programme. • Updating State Aid reference for rural Broadband measure.
10 4/6/2014	<ul style="list-style-type: none"> • Updating State Aid tables. • Changes to measure financial allocations. • Creation of Forestry Challenge Fund and increasing support available under Forest Environment payments. • Amending the scope and actions of the rural broadband measure.

<p>11</p> <p>7/5/2015</p>	<ul style="list-style-type: none"> • Changes to measure financial allocations. • Update to State Aid tables. • Allowing preparatory work for local development strategies for 2014-20 Programme to be funded from 2007-13 technical assistance budget.
<p>12</p> <p>7/5/2015</p>	<ul style="list-style-type: none"> • Changes to measure financial allocations. • Increasing additional national financing allocations for some measures.

Appendix 6 – Reports and data sources referenced in the evaluation

Footnote Reference	Document Title
1	Report of the Inter-departmental Urban-Rural definition group: Statistical Classification and Delineation of Settlements, NISRA February 2005. http://www.nisra.gov.uk/archive/geography/digital_products/urban_rual_classifications/ur_report.pdf
2	EU Farm Structure Survey (2005), NI, DARD
3	A Study on Rural Policy, Department of Agriculture and Rural Development, March 2005 http://gazdakorok.hu/files/2011/03/1_mell%C3%A9klet.pdf
4	Ammonia Monitoring in Northern Ireland (June 2004) – Scotland and Northern Ireland Forum for Environmental Research http://www.sniffer.org.uk/files/5013/4183/7995/UKPIR04.pdf
5	Shaping our Future (2005) - Department of Regional Development, Northern Ireland
6	Department of Agriculture and Rural Development Strategic Plan (2006), ISBN 1 85527 845 6 http://www.rdc.org.uk/download/files/pub_stratplan2006.pdf
7	First Steps Towards Sustainability - (May 2006) Department of the Environment, Northern Ireland https://www.daera-ni.gov.uk/sites/default/files/publications/doe/first-steps-towards-sustainability.PDF
8	EU Sustainable Development Strategy (9 June 2006) European Council Document 10117/06 http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2010117%202006%20INIT
9	Northern Ireland Biodiversity Strategy (2002) - Environment and Heritage Service, Northern Ireland.
10	A Policy Framework for Good Relations in Northern Ireland (2005) Office of the First Minister and Deputy First Minister, Northern Ireland. http://cain.ulster.ac.uk/issues/community/sharedfuture/cru210305shared.pdf
11	Lifetime Opportunities (2006) - Office of the First and Deputy First Minister, Northern Ireland. https://www.executiveoffice-ni.gov.uk/sites/default/files/publications/ofmdfm_dev/lifetime-opp-anti-poverty-and-social-inclusion-strategy.pdf
12	Our Children and Young People – Our Pledge (2006) Office of the First and Deputy First Minister, Northern Ireland. https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/children-young-people-strategy.pdf
13	People and Place – a Strategy for Neighbourhood Renewal (2003) - Department of Social Development, Northern Ireland. https://www.communities-ni.gov.uk/publications/neighbourhood-renewal-people-and-place
14	Fuel Poverty: A Strategy for Northern Ireland (2004) - Department of Social Development, Northern Ireland.
15	The Investment Strategy for Northern Ireland (2005)
16	Regional Transportation Strategy (2002-2013)

	https://www.infrastructure-ni.gov.uk/sites/default/files/publications/drd/Regional%20Transportation%20Strategy%202002-12%20-%20Whole%20Document.pdf
17	Developing a Successful Social Economy (2004) - Department of Enterprise, Trade and Investment, Northern Ireland.
18	Investing for Health (March 2002) - Department of Health, Social Services and Public Safety.
19	The strategic energy framework for Northern Ireland - Department of Enterprise, Trade and Investment.
20	Ex-ante Evaluation of the NIRDP 2007-2013 (2006) - BearingPoint in association with ADAS UK Ltd https://www.daera-ni.gov.uk/sites/default/files/publications/dard/nirdp-07-13-ex-ante-appraisal.pdf
21	Mid-term evaluation of the NIRDP 2007-2013 (2010) – Northern Ireland Statistics and Research Agency https://www.daera-ni.gov.uk/sites/default/files/publications/dard/nirdp-mte-final-report-november-2010.pdf
22	Northern Ireland Rural Development Programme (NIRDP) 2007 - 2013 Mid-term evaluation update (2013) – Northern Ireland Statistics and Research Agency https://www.daera-ni.gov.uk/sites/default/files/publications/dard/nirdp-mid-term-evaluation-update-2013.pdf
23	EU Farm Structure Survey (2013), NI, DARD https://www.daera-ni.gov.uk/publications/european-union-farm-structure-survey-2013
24	Vision for the Future of the Northern Ireland Agri-Food Industry, (2002)
25	Fit for Market, The Report of the Food Strategy Group, (July 2004)
26	DTZ-PIEDA mid-term review http://www.gov.scot/Resource/Doc/47171/0029005.pdf
27	Bull, D.F, Dale, J., Sheail, J., and Heal, O.W., (1982) Vegetation change in upland landscapes. Bangor ITE, NERC.
28	Murray, R. (1985). Vegetation management in Northern Britain. <i>BCPC Conference</i> , Monograph No. 30.
29	Frame, J. (Ed) (1980). The effective use of forage and animal resources in the hills and uplands. <i>British Grassland Society Occasional Symposium</i> Number 12.
30	Frame, J. (Ed) (1985) Grazing. <i>British Grassland Society Occasional Symposium</i> , Number 19.
31	McAdam, J.H. (1983) <i>Characteristics of grassland on hill farms in Northern Ireland</i> . QUB and DANI.
32	McAdam, J.H. (1987) The impact of sheep and cattle grazing on upland pasture. In: Montgomery et al. (Eds) <i>Land use and land use change in Irish uplands</i> p 14-23. Institute of Biology and Irish Geographical Society.
33	McAdam, J.H. (1995) <i>Sheep grazing density and vegetation change in upland grassland</i> . In <i>Irish Grasslands – their biology and management</i> . Pgs 59-66. Dublin, Royal Irish Academy.
34	Bird Atlas 2007-11. The Breeding and Wintering Birds of Britain and Ireland BTO (2013).
35	Northern Ireland Priority Species (http://www.habitas.org.uk/priority/species.asp?item=42516)

36	Northern Ireland Countryside Survey 2007: Broad habitat change 1998-2007 https://www.daera-ni.gov.uk/publications/northern-ireland-countryside-survey-2007-broad-habitat-change-1998-2007
37	Climate Change Indicators 2004 (EHS 2004) https://www.daera-ni.gov.uk/sites/default/files/publications/doe/climate-change-indicators-2004.PDF
38	Climate Change Scenarios for the United Kingdom: The UKCIP02 Scientific Report April 2002 (Hulme et al., 2002). http://danida.vnu.edu.vn/cpis/files/Papers_on_CC/CC/Climate%20Change%20Scenarios%20for%20the%20United%20Kingdom.pdf
39	Preparing for a changing climate in Northern Ireland, Project ref: UKCC13, 2007, SNIFFER http://www.ukcip.org.uk/wp-content/PDFs/Preparing_CC_NI.pdf
40	Monitoring of Agri-Environment Additional Indicators within the NIRDP 2007-2013 https://www.afbini.gov.uk/articles/agri-environment-scheme-monitoring
42	Agri-Environment Monitoring and Services Contract Project P2047: Responses of priority farmland bird populations to agri-environment schemes in Northern Ireland, Final report to the Northern Ireland Agri-Food & Biosciences Institute (AFBI), Newforge Lane, Belfast, March 2013
43	2015 Northern Ireland Water Management Facts and Figures (NIEA)
44	Northern Ireland Environmental Statistics Report 2016 https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016
46	Outline Business Case for DARD's 2015/16 – 2020/21 Rural Development Programme Forestry Measures
47	Review of LEADER Methodology in Northern Ireland Report (August 2013) - RSM McClureWatters for the Department of Agriculture and Rural Development https://www.daera-ni.gov.uk/publications/review-leader-report
48	GROW South Antrim Post Programme Evaluation Final Report: (September 2015) Down Rural Area Partnership Rural Development Programme 2007-2013 – Programme Evaluation Final Report: (August 2015) Lagan Rural Partnership – Programme Evaluation, Final Report, (September 2015) Evaluation of NER RDP (2007–2013) Final Report: (June 2015) SOAR Measure Level Evaluation Report (June 2015) SWARD – Reviewing the Past and Planning for the Future – A Review of the Delivery of the Rural Development Programme 2007-2013 – Axis 3 ARC North West – NIRDP 2007-2013 Overall Evaluation Report – Final, (December 2015)
49	DAERA Mid-Year estimates population change.
50	Northern Ireland Inter Departmental Business Register (January 2016) Department of the Economy
51	Northern Ireland Construction Bulletin (Quarter 2 - 2016) Department of Economy

52	Northern Ireland Index of Production (Quarter 2 – 2016) Department of the Economy
53	Northern Ireland Index of Services (Quarter 2 – 2016) Department of the Economy
54	Tourism Urban-Rural Statistics (November 2014) Department of Agriculture and Rural Development
55	Census of Employment (July 2014) Department of the Economy.
56	Agricultural Census in Northern Ireland (2015) Department of Agriculture and Rural Development
57	Northern Ireland Quarterly Employment Survey Supplementary tables (September 2016) Department of the Economy
58	Statistical review of Northern Ireland Agriculture (2008 and 2015) Department of Agriculture and Rural Development
59	Northern Ireland Annual Survey of Hours and Earnings (2015) Department of the Economy
60	Northern Ireland Annual Survey of Hours and Earnings Urban-Rural Statistics (November 2014) Department for Economy for DARD
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