An Analysis of the Rural Environmental Protection Scheme

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Abstract

The Rural Environment Protection Scheme (REPS) was introduced under Council Regulation 2078/92 in order to encourage farmers to carry out their activities in a more extensive and environmentally friendly manner. This paper looks at the general design of REPS and its uptake by farmers. It evaluates the obligations that REPS places on farmers and the penalties for non-compliance. The paper also examines, using National Farm Survey data, the extent to which farming activities that can help or hinder the environment have changed at a national level due to the REPS scheme. The analysis shows that REPS has had an impact on machinery & building investment and on land & building maintenance. Fertiliser and pesticide use have fallen marginally as a result of the scheme. However, the impact of REPS on the production of organic nitrogen and on the use of chemical nitrogen has been negligible.

Keywords: Rural Environment Protection Scheme, non-compliance, input use.

JEL Classification: Q0

1. Introduction

In response to Regulation (EEC) 2078/92, the Irish Government introduced the Rural Environmental Protection Scheme (generally known as REPS) in June 1994. The EEC regulation provides for programmes to encourage farmers to carry out environmentally beneficial activities on their land. These programmes compensate participating farmers in recognition of the private cost of environmentally benign practices. National or regional authorities implement and monitor the programmes in accordance with the principle of subsidiarity. The devolution of power to lower levels of government is justified on both a democratic basis and on a functional or efficiency basis. The purpose of this paper is to evaluate the design and operation of the first REPS scheme (REPS 1) in terms of its stated environmental objectives.

The paper layout is as follows: Section 2 looks at the general design of REPS and the expected and actual uptake by farmers; Section 3 evaluates in more detail the obligations that REPS places on farmers and the penalties for non compliance; Section 4 examines the evidence of changed practices at a macro level and Section 5 concludes.

2. System Design/ General

The main stated objectives of REPS (Department of Agriculture, Food and Rural Development, 2000) are:

- To establish farming practices and production methods that reflect the increasing concern for conservation, landscape protection and wider environmental problems.

- To protect wildlife habitats and endangered species of flora and fauna.

- To produce quality food in an extensive and environmentally friendly manner.

What the objectives make clear is that the system is designed to reduce the negative externalities associated with conventional farming methods and to enhance positive

externalities. Principal negative externalities include water pollution, soil erosion and destruction of habitats. Positive externalities are the maintenance of the visual and amenity aspect of the rural landscape. Negative externalities are a consequence of intensive agricultural practices that have been encouraged by the price support mechanism of the Common Agricultural Policy (Murphy and Lally, 1998). Such practices include increased stocking density, increased use of chemical fertilisers, pesticides, nitrogen and phosphorous.

The Rural Environment Protection Scheme and its sister program in Britain, the ESA scheme, share a common framework known as the "management agreement model" (Hodge, 1994). Farmers are assumed to have the property rights and can, therefore, carry out the most profit-maximising activity on their holdings with little or no regard to any external costs or benefits that result from the activity (Coase, 1960). Changing standard farming practices imposes direct financial costs on farmers in terms of productivity and gross margins. There are also indirect costs to maintaining the visual aspect of the rural landscape in terms of the opportunity cost of a farmer's time (Hynes, 1999). The financial aspect of REPS is designed to compensate farmers for the losses involved in conforming to the obligations of the system.

There are two striking characteristics of the REPS system: firstly it is universal and secondly it is voluntaristic (Emerson and Gillmor, 1999). Regarding the first point, REPS applies to the whole country; that is to say, no attempt has been made to target regions that are deemed to be more environmentally sensitive. This ignores the fact that the environmental impact of agricultural practices is very location specific as well as being highly non-linear. A report by the Irish Heritage Council, on the impact of agriculture schemes on aspects of Irish heritage, reviewed the REPS scheme and highlighted the failure of REPS in certain instances to give added protection to particularly environmentally sensitive areas (Hichie et al. 1998).

Similar farming practices can have very differing environmental consequences that depend on climate, soil type and other location specific characteristics. The British system, the Environmentally Sensitive Areas (ESA) programme, which was established under the same European regulation, is in marked contrast to REPS as it takes these

factors into account (Garrod and Willis, 1993; Hanley et al., 1999). A universal system can only be justified on environmental grounds, if it is assumed that the whole country is homogenous in terms of its environmental value and its environmental susceptibility to certain agricultural practices.

Regarding the second feature of REPS, its voluntary nature, farmers decide, based on their own value system and their own economic situation, whether or not to join the system and abide by its constraints. While it is certainly credible to assert that the value system of farmers may include considerations other than private financial gain, it would be nevertheless ingenuous to minimise the importance of the latter in the farmer's decision-making calculus. One study has indicated that REPS farmers may have no greater awareness of environmental issues than non-REPS farmers (Aughney, 1997). Hence, one should not be surprised if the farmers that signed up to REPS are those for whom the system offered the greatest financial reward relative to the next best alternative.

A voluntary, universal system with stated environmental objectives begs the question as to whether the farmers that are most likely to adopt its strictures, in order to avail of its financial subsidy, are those whose activities are most environmentally damaging? A priori, one would not expect this to be the case. If one accepts that intensive farming practices are simultaneously the most profitable and polluting, then it would be unsurprising if such farmers are under-represented in REPS.

Table 1 shows the percentage of farms in REPS according to farm size, and in each size category, what percentage of farms had adopted REPS in 1997. What is evident from Table 1 is that big (above 50 hectares) and very small (below 10 hectares) farms are under-represented in REPS. One of the features of REPS is that payment to farmers is on a per-hectare basis up to 40 hectares. Farmers with land in excess of 40 hectares who join the system still have to implement REPS measures on all of their land. Hence, it is unsurprising that large units are under-represented. If one assumes a positive correlation between farm size and farm intensity, then the most polluting farmers are precisely those whom the system is failing to attract.

Table 1: 1997 REPS Farms by Size of Farm (Hectares)

	<10	10-20	20-30	30-50	50-100	>100	Hill Farms	Total
Farms in REPS (%)	1	19	29	28	10	1	12	100
REPS as % of total farms in each category	2	15	28	29	17	9	22	19.9

Source: McEvoy (1999)

Table 2 shows the percentage of farms in REPS according to system and the percentage of farms in each system in REPS in 1997.

Table 2: 1997 REPS Farms by System of Farming

	Dairying	Dairying & Other	Cattle Rearing	Cattle Other	Mainly Sheep	Mainly Tillage	Total
REPS Farms by system of farming (%)	11	13	21	24	24	7	100
REPS as a % of total farms in that system	12	19	20	18	34	28	19.9

Source: McEvoy (1999)

As is evident from Table 2, drystock systems (cattle and sheep) are the most important category of farm type in REPS, comprising 70% of all REPS farms in 1997. These are also the systems of farming that are more extensive and less environmentally degrading than other systems.

3. System Design/Specifics

The REPS system operates on a five year basis. Farmers' obligations under REPS are confined to the time period covered by the scheme. The option exists to renew

participation in the scheme after the first five years have elapsed. The total amount paid out to farmers under REPS in the first five years of its existence (REPS 1) was £626,588,463. The total uptake was 44,769 farms. This represented an average payment per farm of £13,996. Under REPS, an agricultural advisor draws up an environmental plan for each individual farmer. This plan is a legal contract. Failure to carry out the required tasks laid out in the plan results in a reduction in the value of the subsidy paid to the farmer.

REPS 1 was administered in the following manner. Fifty per cent of all farms were inspected in the first year of the scheme. Thereafter, five per cent of farms were inspected in each of the subsequent four years, independent of whether they had been inspected previously. This meant that the probability of being inspected (and detected if non-compliant) over the life of the scheme (p(D)) was 0.593.[1] Under REPS 1, approximately 30 per cent of the penalties imposed were not collected as a result of a successful appeal by the farmer (Department of Agriculture, Food and Rural Development, personal communication). This suggests that the probability of a fine being imposed if a transgression was detected (p(F)) amounted to 0.7. The total value of penalties imposed under REPS 1 amounted to £13,618,029, while the total number of transgressions amounted to 32,818. This gives an average fine (F) per transgression of £415. [2]

If we assume that the representative farmer either wholly complied with their obligations under REPS or else wholly ignored same, then the expected cost of non-compliance can be represented by expression 1:

$$E(C) = p(D).p(F).F \qquad (1)$$

where E(C) is expected cost, p(D) is the probability of being detected in the event of a transgression, p(F) is the probability that a fine will be imposed if one is prosecuted, while F is the average fine per transgression.

[1] The probability of never being inspected is $(0.95)^4(0.5) = 0.407$. Hence it follows that the probability of being inspected and detected = 1- 0.407.
[2] A REPS farmer can be penalised for non-compliance with over thirty different obligations, ranging from over use of fertiliser to inadequate maintenance of hedgegrows and stone walls.

Based on the figures quoted above that relate to monitoring and prosecution under REPS 1, the expected cost of non-compliance with the conditions of the REPS scheme amounted to £172. What this figure suggests is that there was little economic deterrence in the system to ensure that farmers were REPS compliant. [3]

A farmer may have signed up to REPS out of economic interest and this does not exclude the possibility that he will comply with the scheme, even if it is in his economic interests to do the contrary. Ethical considerations or simply risk aversion could explain legal compliance. However, an economic based system of environmental improvement is only coherent if it also incentivises compliance.

Even in the absence of figures showing the average cost of compliance, the small size of the estimated expected cost of breaking one's REPS contract would suggest that the system was not well designed, in the sense of building in economic deterrents to non-compliant behaviour.

4. Impact of REPS at a National level

It is up to scientists to evaluate whether or not the environment has improved in the period of REPS and what environmental changes can be attributed to REPS (Department of Agriculture, Food and Rural Development, 1999). In this section we evaluate the extent to which farming activities that can help and hinder the environment have changed at a national level due to the REPS scheme. We focus on national aggregates precisely because the system is not targeted either geographically or in terms of types of farms. The data basis for this section is the National Farm Survey (NFS) of 1994 and 1997 and a Teagasc report by Oliver McEvoy using data from the NFS. The latter report contains an overview of REPS and Non-REPS farms in 1997 and a comparison of farms in REPS in 1997 with their position prior to REPS in 1994. It does not, however, attempt to evaluate the extent to which changed practices can be attributed to REPS.

[3] The expected cost might even be less than the estimated figure shown in the text. If farmers partially complied with the conditions of the scheme, in the sense of complying some of the time, this would reduce their probability of detection and the expected cost of non-compliance.

The NFS for 1994 and 1997 categorizes Non-REPS farms as Extensive and Intensive. The former are farms that produce less than 170 kilograms of organic nitrogen per hectare (UAA) per year and are deemed potential REPS clients. The latter are farms that produce more than 170 kilograms of organic nitrogen per hectare (UAA) per year and are deemed unlikely to participate in REPS. Using the matched sample for Extensive Non-REPS farms, an index, based on 1997 figures relative to 1994 figures, is constructed for the key variables that impact on the environment.

It is assumed that input use on REPS farms would have changed in a similar way to input use on Extensive Non-REPS farms in the absence of REPS. Therefore, this index is applied to the 1994 figures for REPS farms to establish a benchmark for activities in 1997. A comparison is then made between actual 1997 figures for all farms and figures that include the hypothetical case for the REPS farms. The proportionate difference between the benchmark 1997 figure and the actual 1997 figure is then attributed to the presence of REPS. A detailed account of the methodology used is contained in Appendix 1 while Appendix 2 contains a detailed account of the application of the methodology to the NFS figures of 1994 and 1997. Table 3 summarises the main results

Table 3: Percentage national change in activities due to REPS

Activity	% Change Nationally
Machinery & Building Investment	12.0
Land & Building	8.00
Fertiliser Use	-1.40
Pesticide Use	-1.60
Organic Nitrogen	0.40
Chemical Nitrogen	-0.40
Total Nitrogen	0.17
Organic Phosphorous	1.30
Chemical Phosphorus	-2.20
Total Phosphorous	0.18

What is very evident from the results in Table 3 is that, on a national level, REPS has had a non-negligible impact on Machinery & Building investment and on Land & Building maintenance. It is a condition of REPS that adequate pollution control and animal housing facilities be put in place on the farm. For many less intensive farms this meant significant new investment. Figures for Machinery & Building investment and Land & Building maintenance are financial and so it can only be assumed that such investment translates into actual better quality buildings and land maintenance. To the extent that this is the case, then the results are positive as far as the environment is concerned, leading one to expect less pollution from animal wastes and a more visually pleasing agricultural environment.

All other figures refer to actual input use measured in kilograms. Nationally, fertiliser and pesticide use have fallen marginally. However, the impact of REPS on the production of organic nitrogen and on the use of chemical nitrogen has been negligible. Production of organic phosphorous has increased due to REPS while REPS has reduced the use of chemical phosphorous by over 2 per cent. Overall, however, REPS has had no impact on total nitrogen and phosphorous output at a national level.

5. Conclusion

What this study shows is that the impact of REPS on activities that can enhance or degrade the environment has been at best modest. This is not particularly surprising in light of how the system is designed. A voluntary, universal system is never going to attract the farmers who are the greatest polluters; that is to say, the intensive producers. This study probably overestimates the positive environmental impact of REPS by focusing on national aggregates. Fifty per cent of all REPS participants come from six counties (Donegal, Mayo, Roscommon, Galway, Clare and Cork), which are noted for their small extensive farming systems. Three per cent of all REPS participants come from counties Dublin, Louth, Wicklow and Carlow, which have larger intensive farming systems (Department of Agriculture, Food and Rural Development, 2001). Given the non-linear relationship between agricultural activities and the environment, one could argue that the geographical areas where REPS has had an impact on farming practices are not areas where the environment is under pressure (see Appendix 3). On the other hand,

in those areas where the environment is under pressure, REPS has had little impact due to its low uptake by farmers in those areas.

A serious attempt to improve agricultural practices would target the most vulnerable areas and the greatest polluters. It would use a combination of economic incentives, legal sanctions and educational measures to ensure that private behaviour does not have adverse environmental consequences. Too great a focus on economic incentives at worst encourages a disregard for the social consequences of private activities and at best has a marginal impact when incentives are universally available to those farmers who voluntarily opt into the scheme.

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Appendix 1

Procedure for estimating the impact of the Rural Environmental Protection Scheme (REPS) on farmer behaviour

A. All Activity excluding Pesticide Use

Step 1

Estimate of the total acreage (ha) of farms in REPS and those who are not in REPS. The latter include Extensive Non-REPS farms and Intensive Non-REPS farms. A farm is classified as intensive if it produces more that 170 kilograms (kg) of organic nitrogen per hectare per annum. The data comes from the 1997 National Farm Survey (NFS), which includes: (i) the average utilisable agricultural area (UAA) and; (ii) the number of farms for each of the three categories.

The UAA was not directly available for Intensive Non-REPS farms but could be calculated using data for UAA of REPS farms, Extensive Non-REPS farms and All farms.

Step 2

An index of activity is created for Extensive Non-REPS farms using a matched sample that compares 1997 to 1994 data. This index is then applied to the 1994 REPS farm data to establish a benchmark of what activity would have been if the latter had not signed up to REPS. The implicit assumption is that REPS and Extensive Non-REPS farms would have followed a similar activity trajectory.

Step 3

The actual activity figures for the three categories of farms are then aggregated to give a national figure for 1997. The aggregation requires using the data of activity on a per hectare basis for each category of farm and multiplying it by the number of hectares in each category (from step 1).

Step 4

The benchmark figures require using the actual activity figures for 1997 for Extensive Non-REPS and Intensive Non-REPS farms together with the benchmark figures for REPS farms.

Step 5

The proportionate difference between Step 4 and Step 5 is the estimated impact on farmer activity, at a national level, of REPS.

B. Pesticide Use

The 1997 pesticide figures refer to Tillage farms only and the latter are categorised as REPS and Non-REPS. No distinction is made between Extensive Non-REPS and Intensive Non-REPS.

Step 1

Estimate of the total acreage (ha) of Tillage farms in REPS and Tillage farms not in REPS using the 1997 National Farm Survey (NFS) data.
1.5% of all REPS farms were in Tillage and 19.9% of all farms were in REPS according to the 1997 NFS. The average number of farms in REPS in 1997 was 25,700 and the average size of a REPS Tillage farms was 41 hectares.

$$\text{Number of tillage hectares under REPS} = \left(\frac{1.5}{19.9}\right) \times 25{,}700 \times 41 = 79{,}424.62$$

According to the 1997 NFS, 3.7% of all Non-REPS farms were in Tillage. Extensive Non-REPS farms and Intensive Non-REPS farms accounted for 67.2% and 12.3% respectively of all farms. There were 86,700 Extensive Non-REPS farms and 15,900 Intensive Non-REPS farms and the average size of a Non-REPS Tillage farms was 66 hectares.

Number of tillage hectares not under REPS =

$$\left(\frac{3.7}{(67.2+12.3)}\right) \times (86{,}700 + 15{,}900) \times 66 = 315156.23$$

Step 2

An index of pesticide use is created for Non-REPS Tillage farms using a matched sample that compares 1997 to 1994 data. This index is then applied to the 1994 REPS farm data to establish a benchmark of what activity would have been if the latter had not signed up to REPS. The implicit assumption is that REPS Tillage farms and Non-REPS Tillage farms would have followed a similar pesticide use trend.

Steps 3, 4 and 5.

The procedure is the same as for other activities except that all the figures relate to pesticide use on REPS and Non-REPS Tillage farms and combines steps 1 and 2 above.

Appendix 2

The change in farm activities due to Rural Environmental Protection Scheme (REPS) between 1994 and 1997

A. <u>All activity excluding pesticide use</u>

Step 1

	REPS	Extensive Non-REPS	Intensive Non-REPS
Farm Size (ha)	36	32	34
Number of Farms	25,700	86,700	15,900
Total hectares	925,200	2,774,400	540,600

Step 2

	Extensive Non-REPS 1994	Extensive Non-REPS 1997	Index of Activity	REPS 1994	Benchmark REPS 1997
Machinery & Building Invest (£/ha)	47	96	2.0425532	38	77.62
Land & Building Maintenance (£/ha)	23	28	1.21739	20	24.348
Fertiliser Use (kg/ha)	56	56	1	45	45
Organic Nitrogen (kg/ha)	98	98	1	90	90
Chemical Nitrogen (kg/ha)	98	85	0.867347	70	60.714
Total Nitrogen (kg/ha)	196	183	0.933673	160	149.388
Organic Phosphorous (kg/ha)	15	15	1	14	14
Chemical Phosphorous (kg/ha)	16	14	0.875	13	11.375
Phosphorous (kg/ha)	31	29	0.935484	27	25.28

Step 3

	REPS 1997	Extensive Non-REPS 1997	Intensive Non-REPS (£/ha) 1997	REPS Total (000) 1997	Extensive Non-REPS (000) 1997	Intensive Non-REPS (000) 1997	Total (000) 1997
Machinery & Building Investment	133 (£/ha)	91 (£/ha)	179 (£/ha)	123,052 (£)	252,470 (£)	96,767 (£)	472,289 (£)
Land & Building Maintenance	35 (£/ha)	27 (£/ha)	47 (£/ha)	32,382 (£)	74,909 (£)	25,408 (£)	132,699 (£)
Fertiliser Use	41 (kg/ha)	57 (kg/ha)	112 (kg/ha)	37,933 (kg)	158,141 (kg)	60,547 (kg)	256,621 (kg)
Organic Nitrogen	92 (kg/ha)	98 (kg/ha)	200 (kg/ha)	85,118 (kg)	271,891 (kg)	108,120 (kg)	465,129 (kg)
Chemical Nitrogen	59 (kg/ha)	85 (kg/ha)	206 (kg/ha)	54,587 (kg)	235,824 (kg)	111,364 (kg)	401,775 (kg)
Total Nitrogen	151 (kg/ha)	183 (kg/ha)	406 (kg/ha)	139,705 (kg)	507,715 (kg)	219,484 (kg)	866,904 (kg)
Organic Phosphorous	15 (kg/ha)	15 (kg/ha)	30 (kg/ha)	13,878 (kg)	41,616 (kg)	16,218 (kg)	71,712 (kg)
Chemical Phosphorous	10 (kg/ha)	14 (kg/ha)	18 (kg/ha)	9,252 (kg)	38,842 (kg)	9,731 (kg)	57,825 (kg)
Total Phosphorous	25 (kg/ha)	29 (kg/ha)	48 (kg/ha)	23,130 (kg)	80,458 (kg)	25,949 (kg)	129,537 (kg)

Step 4

	Benchmark REPS (000) 1997	Extensive Non-REPS (000) 1997	Intensive Non-REPS (000) 1997	Benchmark Total (000) 1997
Machinery & Building Investment	71,812 (£)	252,470 (£)	96,767 (£)	421,049 (£)
Land & Building Maintenance	22,527 (£)	74,909 (£)	25,408 (£)	122,844 (£)
Fertiliser Use	42,634 (kg)	158,141 (kg)	60,547 (kg)	260,322 (kg)
Organic Nitrogen	83,268 (kg)	271,891 (kg)	108,120 (kg)	463,279 (kg)
Chemical Nitrogen	56,173 (kg)	235,824 (kg)	111,364 (kg)	403,361 (kg)
Total Nitrogen	138,213 (kg)	507,715 (kg)	219,484 (kg)	865,412 (kg)
Organic Phosphorous	12,953 (kg)	41,616 (kg)	16,218 (kg)	70,787 (kg)
Chemical Phosphorous	10,524 (kg)	38,842 (kg)	9,731 (kg)	59,097 (kg)
Total Phosphorous	23,369 (kg)	80,45 (kg)	25,949 (kg)	129,776 (kg)

Step 5

	Benchmark Total (000) 1997	Total (000) 1997	Proportionate difference between benchmark case and actual total
Machinery & Building Investment	421,049 (£)	472,289 (£)	12.2%
Land & Building Maintenance	122,844 (£)	132,699 (£)	8%
Fertiliser Use	260,322 (kg)	256,621 (kg)	-1.4%
Organic Nitrogen	463,279 (kg)	465,129 (kg)	0.4%
Chemical Nitrogen	403,361 (kg)	401,775 (kg)	-0.4%
Total Nitrogen	865,412 (kg)	866,904 (kg)	0.17%
Organic Phosphorous	70,787 (kg)	71,712 (kg)	1.3%
Chemical Phosphorous	59,097 (kg)	57,825 (kg)	-2.2%
Total Phosphorous	129,776 (kg)	129,537 (kg)	0.18%

B. Pesticide Use

Step 1

	REPS Tillage	Non-REPS Tillage
Farm Size (ha)	41	66
Number of Farms	1,937.18	4,775.09
Total hectares	79,424.38	315,156

Step 2

	Non-REPS Tillage 1994	Non-REPS Tillage 1997	Index of Activity	REPS Tillage 1994	Benchmark REPS Tillage 1997
Pesticide (£/ha)	60	79	1.3167	45	59.2515

Step 3

	REPS Tillage (£/ha) 1997	Non-REPS Tillage (£/ha) 1997	REPS Tillage (£) 1997	Non-REPS Tillage (£) 1997	Total (£) 1997
Pesticide	53	84	4,209,492	26,473,104	30,682,596

Step 4

	Benchmark REPS Tillage (£) 1997	Non-REPS Tillage (£) 1997	Benchmark Total (£) 1997
Pesticide	4,706,014	26,473,104	31,179,118

Step 5

	Benchmark Total (£) 1997	Total (£)1997	Proportionate difference between benchmark case and actual total
Pesticide	31,179,118	30,682,596	-1.6%

Appendix 3

Summary 1994 - 2000 REPS Scheme 1				
	Participants	**% Participants by County**	**Payments**	**Total Hectares**
CARLOW	379	1	6,392,135.37	13,554.83
CAVAN	1743	4	21,186,355.20	47,059.33
CLARE	2501	6	38,616,733.19	89,542.56
CORK	3119	7	45,939,757.62	118,650.02
DONEGAL	3008	7	40,281,697.47	113,114.40
DUBLIN	128	0	1,699,996.33	3,846.70
GALWAY	5586	12	73,138,381.87	175,719.40
KERRY	2269	5	36,257,831.53	113,066.83
KILDARE	742	2	11,598,524.96	24,993.08
KILKENNY	952	2	14,250,893.52	36,013.47
LAOIS	1031	2	16,287,716.83	35,640.13
LEITRIM	1541	3	20,812,935.93	44,778.74
LIMERICK	1465	3	20,834,742.66	49,274.39
LONGFORD	1196	3	16,894,830.07	34,892.97
LOUTH	330	1	5,136,959.64	10,112.06
MAYO	5299	12	66,263,045.93	167,348.67
MEATH	1065	2	15,141,361.80	33,078.59
MONAGHAN	1082	2	11,063,110.84	26,148.24
OFFALY	1329	3	20,863,378.07	46,718.33
ROSCOMMON	2526	6	31,228,566.47	70,051.88
SLIGO	1508	3	17,511,244.64	47,305.36
TIPPERARY (NR)	1181	3	20,103,067.99	43,951.81
TIPPERARY (SR)	1074	2	18,145,918.85	40,272.57
WATERFORD	739	2	11,024,265.46	32580.22
WESTMEATH	1436	3	22,064,702.08	48,384.29
WEXFORD	1069	2	16,935,672.21	39,279.82
WICKLOW	471	1	6,914,636.78	19,191.62
**	44769	100	626,588,463.31	1,524,570.31

** The total number of participants is the number of Active participants in the REPS 1 Scheme. No account is taken of those participants who have withdrawn from the scheme between 1/1/94 and 31/12/2000.