Contemporary landscape pressures and opportunities: the quest for a sustainable future for Leitrim

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[FINAL AUTHOR VERSION, PRE-TYPSETTING]

'Lovely Leitrim, where the Shannon waters flow' is renowned for its scenic combination of waterways and uplands, for its rural borderland location, and for its small population. While it shares many challenges and opportunities with neighbouring western counties, some of its recent experiences are unique to the county and reflect its geographical location and its population decline, as well as efforts to address both issues. Attempts to drive economic growth in Leitrim have had a number of unintended outcomes for the county, as the following discussion will demonstrate. As the least populous county in Ireland, there are few Leitrim-dwellers who are not acutely aware of the vulnerable position in which this places them. While Leitrim might be a 'hidden gem', it could also be characterised as a forgotten county, which can struggle to have its voice heard on a national stage. This chapter explores some of the recent pressures facing Leitrim's landscape and society, including housing oversupply, fracking and afforestation.

[GRAPH 1 and TABLE 1 here]

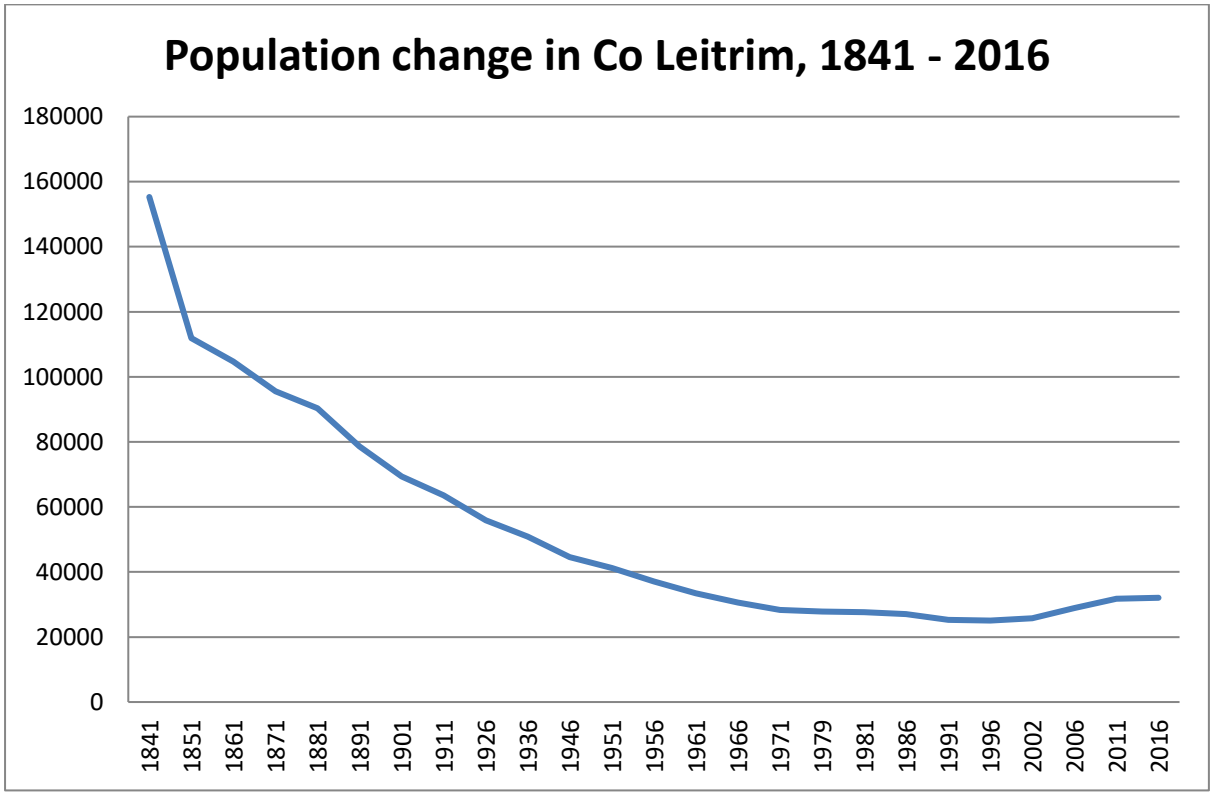


Table 1: Leitrim's population at each census, 1841-2016

1841	155,297
1851	111,897
1861	104,744
1871	95,562
1881	90,372
1891	78,618
1901	69,343
1911	63,582
1926	55,907
1936	50,908
1946	44,591
1951	41,209
1956	37,056
1961	33,470
1966	30,572
1971	28,360
1979	27,844
1981	27,609
1986	27,035
1991	25,301
1996	25,057
2002	25,799
2006	28,950
2011	31,798
2016	32,044

Source: CSO StatBank EY001.

The story of Leitrim's population decline can be simply demonstrated by a graph [FIGURE 1a and 1b: GRAPH and TABLE]. Although the early decades of the twenty-first century have recorded a slight upward trend in population, emigration and an ageing population cast a long shadow over the county. Never particularly populous in relative terms, in 1841 Leitrim's population accounted for over 2% of the population of the twenty-six counties which now make up the Republic of Ireland, compared to under 1% today. Census results for 2016 show that the population of Leitrim has grown very marginally (by just 0.8%) since the previous census in 2011, from 31,798 to 32,044.[1] At a national level, a very clear east/west population divide is evident, with population decline recorded in Donegal and Mayo, and slow growth in many of the remaining western counties.[2] The fact that Leitrim has stabilised and actually grown slightly in this context is therefore quite a positive result. Although there was a loss of

population from the county due to out-migration, with an estimated net migration of -4.1 per 1,000 of population in Leitrim, this was more than compensated for by a natural increase (excess of births over deaths) of 5.2 per 1,000. The 2016 census also shows that Leitrim's population has the second highest average age nationally, at 39.8 years, marginally behind Kerry and Mayo, at 40.2 years.[3] Not surprisingly, Leitrim also had the highest dependency ratio of any county at 62.6 per cent, closely followed by Counties Mayo (61.0%), Roscommon (60.8%) and Donegal (60.5%), reflecting its ageing population.[4] The dependency ratio calculates the number of dependents in a population compared to those of working age. The higher the ratio, the greater the economic burden carried by working-age people. The county is predominantly rural. In 2016, Leitrim had only seven centres with a population greater than 600 people. Of these, the county town of Carrick-on-Shannon (which extends into County Roscommon) was by far the biggest, with 4,062 people. It is followed by Manorhamilton (1,466), Kinlough (1,032), Ballinamore (914), Drumshanbo (902), Mohill (855) and Dromahair (808).

The ghost county: housing, rural renewal and vacancy levels in Leitrim

Leitrim has recently acquired an unenviable reputation as the county where the imbalance between housing and population is most extreme. This has manifested itself in a number of ways. Census returns have consistently shown Leitrim to be among the counties with the greatest proportion of vacant dwellings in Ireland, while in November 2012, Leitrim topped the table of unfinished housing units in the National Housing Development Survey, having the highest proportion of vacant dwellings per 1,000 households, ahead of the neighbouring counties of Longford, Cavan, Roscommon and Sligo. The problem of so-called ghost estates became particularly acute in Leitrim and was a recognised phenomenon even before the financial collapse of 2008.

One of the major factors which led to housing oversupply in Leitrim, and one of the major contributors to landscape change in the county, was the Rural Renewal Scheme (RRS). Running from June 1998 to 2006, the scheme was modelled on the property-based urban renewal policies which had been applied to Irish cities from 1986 under the Urban Renewal Scheme. It offered tax-based development incentives in the deprived rural area of the Upper Shannon, covering Counties Leitrim and Longford, and parts of Cavan, Roscommon and Sligo. At the time of its launch, the rationale for introducing this designation seemed clear. As explained by the Department of Finance, the aim was to stimulate both population and economic growth.[5] This was a region which had experienced long-term population decline

and below-average economic growth. Furthermore, it lacked any significant urban centres which could provide a focus for the type of economic growth which had been experienced in other parts of the country. However, it has also been argued that the particular designation was linked to lobbying by both politicians and construction industry representatives, and reflected the fact that the region had not benefited from other incentive-based schemes such as the Town Renewal Scheme.[6] Whatever the truth behind its introduction, the RRS translated an urban-based policy of property-led regeneration to Ireland's most rural county. While it had some positive results, such as enabling some individuals to build their own homes, the unintended outcomes particularly in terms of vacancy levels were to prove extremely problematic.

One unfortunate aspect of the scheme was that it took a broad approach by designating a large geographical area without introducing any specific planning framework or vision which could have guided and focused development.[7] There were no special landscape and environmental guidelines. Unlike the later phases of urban renewal which were running simultaneously, the RRS had a top-down approach and poor reporting structures. As Gkartzios and Norris have observed, there was 'a lack of strategic vision regarding the relationship between the RRS and national policy on rural housing and planning'.[8] In effect, the RRS was incompatible with sustainable rural development of its target region.

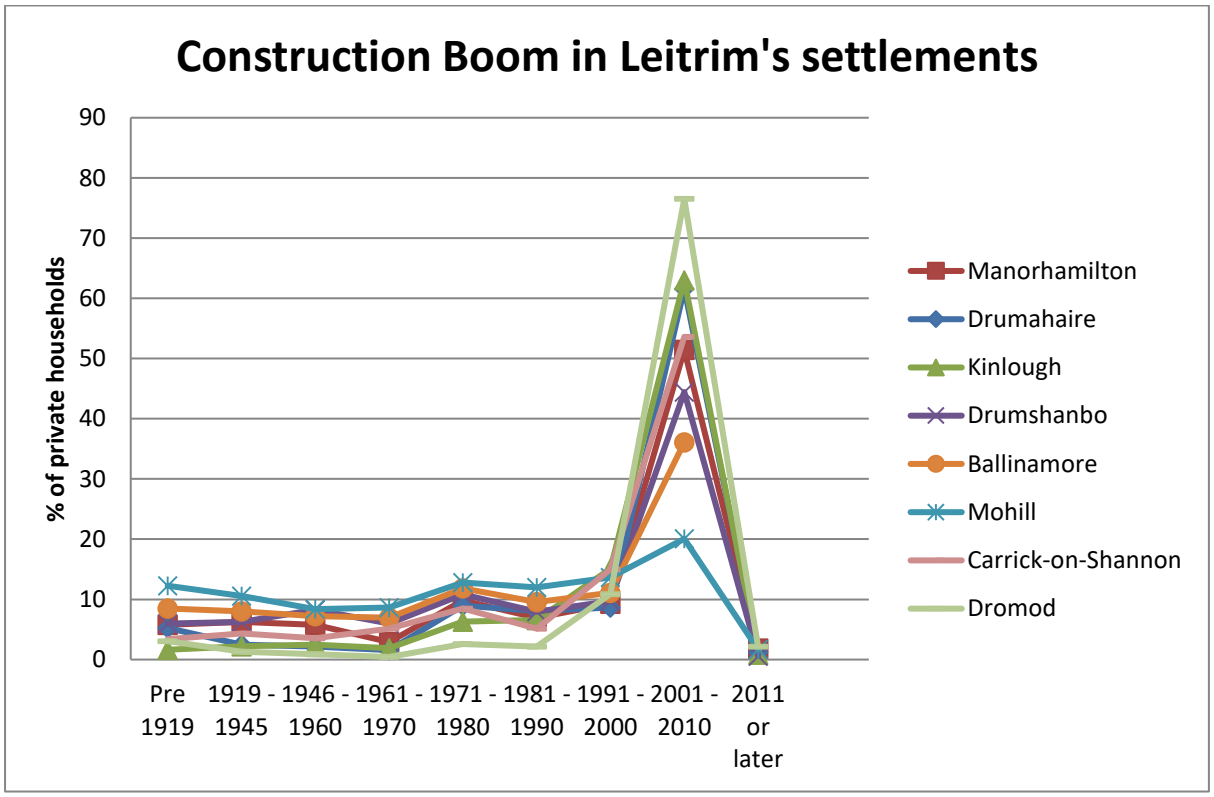
Over-development linked to the Upper Shannon Rural Renewal Scheme had already become a source of concern within two years of its initiation. An *Irish Times* article on 6 October 2000 focused on Leitrim's very short stretch of coastline, which was designated as an area of outstanding natural beauty in the county development plan.[9] In the village of Tullaghan seventy-two new houses had been built along a half-mile stretch of coastal road, with planning applications for a further seventy units lodged with Leitrim County Council.[10] Concerns were expressed that the village had become 'one big building site', while there was no proper sewage system.[11]

One of the intentions of the RRS was to generate employment. However, a review undertaken in 2005 by Goodbody Economic Consultants suggested that this largely involved short-term, construction-related jobs, rather than more sustainable employment in businesses.[12] Gkartzios and Norris quoted a Leitrim-based estate agent who stated that

the economy of Leitrim is based on building, definitely. And what happens if the building slows down? We're very vulnerable in that area because I would have to say that 90 per cent of the economy in Leitrim is based on building'.[13]

On a positive note, however, the same study suggested that, for the overall target area covered by the RRS, the aims of stemming population change and increasing employment levels were achieved. Similarly, the Heritage Council found that the scheme had met its objectives to stimulate rural renewal and development activity in both Leitrim and Roscommon, despite being critical of the absence of either a baseline audit or mid-term evaluation which caused severe difficulties in evaluating its efficiency and its heritage impacts.[14]

[CHART 2]



Source: compiled from CSO SAPMAP 2016 data.

Drawing on the 2016 census, the construction period of individual households within key settlements can be identified. For eight Leitrim settlements, the dramatic impact of the RSS phase is clearly demonstrated (see Chart 2 and Table 2). All locations saw a steep increase in the number of dwellings completed between 2001 and 2010, and a dramatic fall-off after that date. Mohill was the least impacted, with just 20% of units completed between 2001 and

2010, whereas more than three-quarters of private households in Dromod were completed during this period.

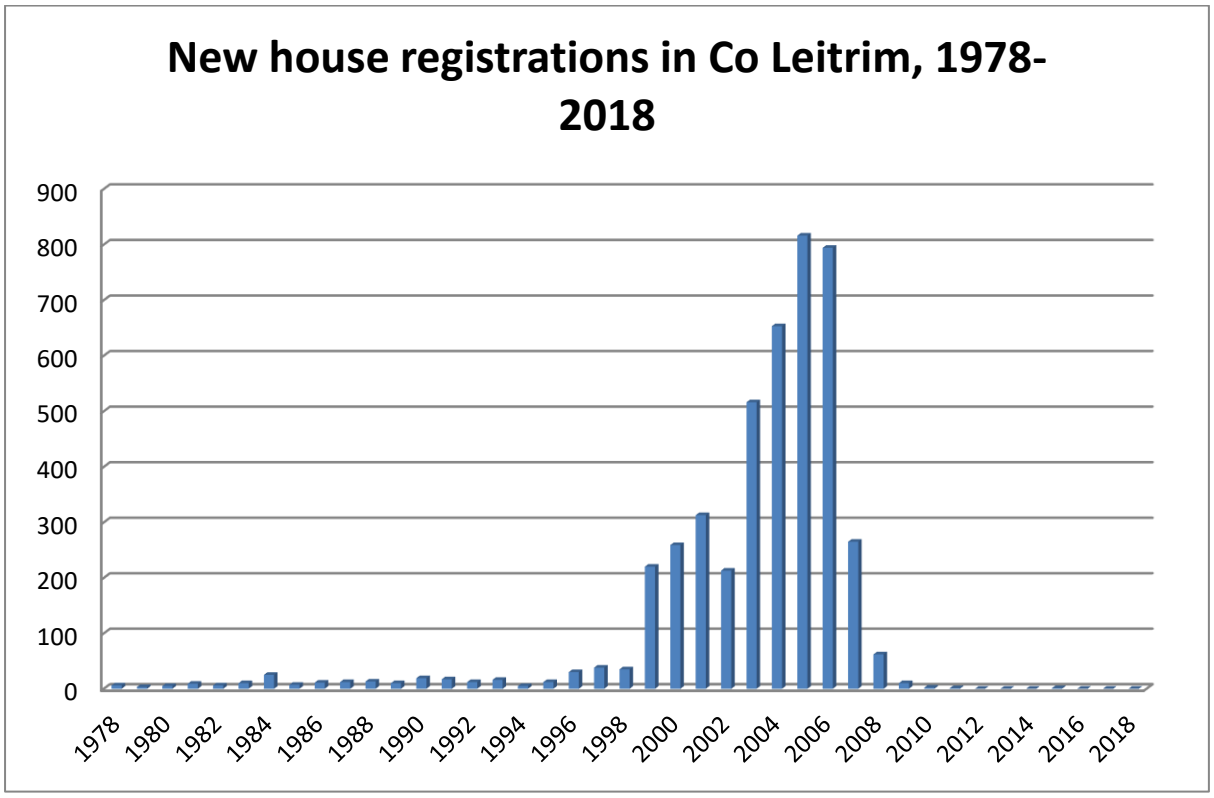
Table 2: percentage of households by period of construction

Period built	Manorhamilton	Drumahaire	Kinlough	Drumshanbo	Ballinamore	Mohill	Carrick-on-Shannon	Dromod
Pre 1919	6	5	2	6	9	12	3	3
1919 - 1945	6	2	2	6	8	11	4	1
1946 - 1960	6	2	2	8	7	8	4	1
1961 - 1970	3	2	2	6	7	9	5	0
1971 - 1980	10	9	6	11	12	13	8	3
1981 - 1990	7	8	7	8	10	12	5	2
1991 - 2000	9	9	15	10	11	14	15	11
2001 - 2010	51	62	63	44	36	20	54	77
2011 or later	2	1	1	1	1	2	1	2
Not stated (households)	36	13	32	24	19	18	118	4
Total	627	336	397	375	407	377	1,595	234

households								

In 2006 the government decided to discontinue the Rural Renewal Scheme due to increasing concerns about its unintended impacts. In particular, there was a very significant degree of housing over-supply in the scheme area, where some 11,000 dwellings were either built or refurbished. Chart 3 clearly demonstrates the significant growth in new house registrations in Co Leitrim from 1999. While the employment provided during the construction phase of the RRS housing was welcome, locals remarked on the particularly low economic value of long-term vacant dwellings. In rural Leitrim the likely demand for the four- and five-bed private rental properties which accounted for the majority of output under the scheme was questioned. Indeed, 4,648 new housing units were built in Leitrim between 2002 and 2006, whereas the number of households increased by just 1,541. Unsurprisingly, the 2006 census revealed that some 29% of all housing units in Leitrim were empty, while all of the RRS designated counties had very high vacancy rates. Given that RRS support was not available for holiday homes, this vacancy was not seasonal; rather, the excess supply resulted in permanently vacant dwellings.

[Chart 3: New house registrations in Co Leitrim, 1978-2018. Source: CSO StatBank HSA10: New House Registrations by County and Year]



Vacant housing became one of the biggest issues in Ireland during the boom period.[15] In the case of Leitrim, planning approval had generally been easily gained, given the low rates of

development in the county, and interviewees suggested that the pro-development ethos among local politicians in the RRS area ensured that applications for planning permission were rarely refused: 'I am afraid that the attitude was that every house built in Leitrim is five jobs for a year. It didn't matter that there was nobody going to be able to buy it.'[16]

One landscape outcome of the RRS was the concentration of development in the towns and villages, largely in the form of estates and apartments, rather than one-off housing in the countryside. This was not a deliberate policy action, but nevertheless the focus on higher density development and urban centres has been hailed by local government planners and managers as a positive impact. The effect is particularly noteworthy in Carrick-on-Shannon, where more than one-fifth of the housing stock now comprises purpose-built apartments (500 out of 2,238 units). This is more than double the national average.[17] Furthermore, the Goodbody review of the scheme concluded that 40% of all RRS-subsidised construction took place in the only large towns within its operational area, where it had a positive spill-over effect into other businesses. Despite the positive reception by planners, not everyone was so enthused by the changing form of their villages and the acute visual impact of the new RRS-driven developments. Residents of Drumshanbo, for example, complained how the new estates, and particularly the apartment blocks, were killing the character of the local villages.

Housing over-supply was to become a national problem during Ireland's economic boom, due to a complex mix of factors including government incentives, easy availability of credit, and house price inflation. In 2008, Irish banks reportedly lent 25 billion euro to builders and property developers for the construction of apartments and houses.[18] House supply began to exceed demand and, when the housing bubble burst, unfinished estates were left abandoned across the country. The problem was most severe in those locations which had been late to join the construction frenzy, particularly those which did not have a natural pent-up demand or which, far from major centres of population or employment, were unlikely to experience significant growth in the medium term. Thus, Leitrim became one of the greatest casualties of the housing bubble.

By 2006 the concern with over-production of housing was such that for the first time the national census gathered information on vacancy levels in housing. The results showed a national vacancy level of 15%, which fell slightly to 14.4% by 2011. County Leitrim already had the highest percentage of vacant housing in the country, at 29.3%, and vacancy levels went against the national trend by rising slightly to 30.3% at the next census in 2011. By contrast, in a normal housing market, experts suggest that vacancy rates should be about 6%.

The term ‘ghost estates’ was coined by economist David McWilliams in 2006, the same year that the RRS was finally abolished.[19] Aside from dwellings which were completed but remained empty, many new housing estates were incomplete. Unfinished houses and apartments symbolised the excesses of the national property bubble. Those who bought and moved into what became unfinished estates faced a number of problems: living on or next to building sites, health-and-safety issues, poor services and infrastructure, negative equity, anti-social behaviour and a diminished sense of community.[20] Unoccupied buildings in these so-called ‘ghost estates’ posed serious safety risks, especially to children, as the building sites were often not fully secured, with sewers left open and water being contaminated. The developments remained ‘in limbo’ as the lack of proper public infrastructure in the estates discouraged potential purchasers of the homes. Difficulties also arose for the local authority which could not take estates in charge (i.e. take over responsibility for their upkeep) while they were incomplete.[21] Already in July 2006 the issue was recognised by Leitrim County Council, when they made a decision to appoint two staff to “vigorously pursue” developers who failed to complete housing developments in accordance with the planning permissions granted.[22]

When the first official report on incomplete housing estates was published by the Department of the Environment in October 2010, it revealed that the counties of the north-west and west were the worst in terms of empty units relative to their overall county population size. While there were 2,846 unfinished estates nationwide, comprising over 43,000 unfinished and finished houses and apartments, Leitrim with the smallest population had ninety-six. At the time, the *Sligo Champion* bluntly blamed the proliferation of unnecessary housing developments on government tax incentives in the late 1990s, stating that the main tax relief which created ‘ghost estates’ was the Rural Renewal Relief.[23] A study by the National Institute of Regional and Spatial Analysis (NIRSA) in 2010 using a different methodology suggested that vacancy levels were almost twice those officially reported, while Leitrim was the county most affected by so-called ‘ghost housing estates’, and it could be at least seven years before house prices in the region stabilised.[24] When the NIRSA figures were broken down on a per capita basis, the most negatively affected counties were Leitrim, Longford, Sligo and Roscommon. Professor Rob Kitchin of NIRSA suggested that these counties had been most negatively affected by the bursting of the property bubble because development there had started later than elsewhere in the Republic. Construction was at its peak there when the property boom had already stopped. Kitchin also pointed to a complete uncoupling

of property demand and supply between 2006 and 2009, which was after the RRS incentives had ended. Kitchin estimated that Leitrim would have needed about 588 new houses over that period based on population growth, yet over four times that many were actually built, with 2,945 houses completed.

By 2012, the discussion around the future of empty housing stock had begun to focus on drastic options such as razing them to the ground. At this stage, the issue in Leitrim had become acute. Over one-third of homes in the county were unoccupied, with a substantial number of partially occupied or incomplete estates.[25] Local councillor John McCartin was among those calling for measures to address the crisis situation facing the county. In the village of Newtowngore, only thirteen out of forty homes were occupied and McCartin pointed to the health and safety risks posed by those houses which were at various stages of completion.[26] Speaking to the local newspaper, he also claimed that squatters had moved into some homes in the village. McCartin remarked that:

> The average life span of an unoccupied house with no services is three to seven years and we have already seen a huge deterioration in the condition of unfinished housing stock throughout the county. We have to face the reality that viable houses must be used and those that aren't must be immediately knocked.[27]

Government schemes to tackle the issue nationwide included the social-housing leasing initiative, introduced in 2009. As the name suggests, it sought to make some properties available to households on social housing waiting lists, by facilitating housing authorities to lease properties from private property owners; take-up for this initiative was low. Health and safety issues on the incomplete estates were addressed in 2011 with a €5 million Public Safety Fund. From 2012, site-resolution plans were introduced, though initially they had little effect beyond the fencing off of dangerous areas and filling in potholes.[28] Although significant reductions in the number of unfinished housing estates were recorded by the 2012 Unfinished Housing Developments Survey published in November of that year (partly due to changes in the methodologies used to measure them), Leitrim continued to top the list as the local authority with the highest number of vacant units per 1,000 households. A year later, in 2013 the Survey recorded sixty-nine unfinished estates in County Leitrim.[29]

In November 2013 the then housing minister, Jan O'Sullivan, announced that forty unfinished estates would be cleared over the next year, with plans to add other properties where it was clear that they could never be sold.[30] As the majority of these estates were only

at the stage of having foundations laid or groundworks carried out, the intention was to return them to green field status. The complex process involved liaison between the department and local authorities to identify the estates, following which the council officials had to contact the banks and developers associated with each site; the owners then were to decide whether to complete them or bulldoze the existing work. Although exact locations were not revealed for commercial reasons, the majority of the first dwellings earmarked for demolition were in Leitrim, Roscommon, Longford, Cavan and Offaly.

Just a year later, however, in 2014, the national press was reporting a 'reprieve' for up to forty ghost estates across the country, where the proposed demolition would no longer go ahead because of an economic upturn and housing shortage.[31] With very few new houses being built, prices were rising dramatically in the major cities. Nevertheless, some unfinished developments remained problematic. To assist in addressing the legacy of unfinished housing developments, Budget 2014 contained a targeted €10m Special Resolution Fund (SRF). It provided money to finish roads, footpaths, public lighting and open spaces. The SRF was designed to encourage the resolution of the remaining tranche of unfinished developments identified in the National Housing Development Survey 2013 and, particularly, those developments which were not likely to be resolved in the normal way through solely developer/owner/funder action because of the presence of specific financial barriers. The SRF was principally targeted to address the remaining unfinished developments which had residents living in them and, in particular, any developments that local authorities identified, for the purposes of the Local Property Tax exemption, as in a seriously problematic condition.[32] Three of Leitrim's unfinished estates received funding under the SRF, at Drumshanbo (€248,000 for Radharc an Baile), Rooskey (The Beeches and The Sycamores, €149,000) and Carrick-on-Shannon (Elysian Meadows, €130,000).[33]

Leitrim County Council spent over €216,000 on its unfinished estates programme in 2015, with a further allocation of over €136,000 to carry out works on unfinished estates in 2016. During 2015, some twelve estates were brought up to standard and taken in charge by the council, with a further five in process of being taken in charge, while work on a further three unfinished developments under the Special Resolution Fund was approaching completion.[34] On 18th March 2019 an *Irish Times* headline signalled a positive outcome for another ghost estate, this time in Manorhamilton, with a review of the new restaurant at the W8 'state of the art tourist and cultural hub'. A year previously, the site had been an abandoned development, but has now been revived as a holiday village.[35]

[Figure X: Map of 2016 vacancy levels in Leitrim DEDs]

Despite the many efforts undertaken to resolve its housing issues, at the time of writing Leitrim still has the highest rate of vacant housing in the country. Although the statistics available from the 2016 census are not directly comparable with the previous census, they show that vacancy levels have continued to fall nationally. While there was a slight drop in vacancy as a percentage of the total housing stock, Leitrim still boasts the highest vacancy rates in the country, at 29.5%, followed by Donegal, whereas the national average is 19.9%.[36] Some geographical variation is evident in the 2016 vacancy levels, as seen in Figure x. Of seventy-eight district electoral divisions (DEDs) in Leitrim, vacancy varies from a high of 54.3% in Drumreilly East to a low of 14.8% at Annaghduff. Nevertheless, the truth behind vacancy in Leitrim may be more complex than is suggested by official statistics. In a special feature in January 2017, the *Leitrim Observer* asked 'what is the real housing situation in Co. Leitrim?' and pointed to a more nuanced reality on the ground. Whereas the Leitrim County Council stated that there was no housing shortage, local auctioneers suggested that a housing shortage would be experienced across the county by the end of the year, with a general shortage in availability of rental houses, while housing in Carrick-on-Shannon was at a premium.[37] Despite the oft-quoted high vacancy rates in the county, most of the auctioneers quoted in the feature suggested that very few vacant properties were available to buy or sell. Many of the empty houses were 'in limbo' and not available for sale, often because of financial difficulties such as receivership or bank issues.[38] Meanwhile, given the stricter wastewater regulations introduced in 2009, planning permission has become more difficult to obtain and one-off rural housing has become more costly to build.[39] Clearly, Leitrim's housing situation is more complicated than it might appear at first inspection, but it is undoubtedly the case that the Celtic Tiger boom and subsequent bust have left a dramatic imprint on the landscape.

Leitrim afforestation I: trees versus people?

Whereas ghost estates may be a relatively new phenomenon in Leitrim, afforestation has been contentious over the decades. Mixed emotions are evoked by the increasing land area which has been afforested, particularly since the 1970s, with a tension between the potential economic benefits of trees and their visual intrusion and landscape dominance, to the extent that local residents feel cut off from their communities. A further factor relates to land ownership allied with the sense that much of the forestry is controlled by outside commercial companies who have priced local farmers out of the market for land.

Ireland was one of the least forested countries in Europe at the foundation of the state in 1922, when only slightly more than 1% of the land area was under forestry. A recognition of the economic (and latterly also environmental) potential of trees has seen that percentage rise to the current level of 11% of the country's land area. However, there are wide variations in forest cover between different counties. The third national forestry inventory completed in 2017 found that County Leitrim had the highest level of forest cover at 18.9%, closely followed by Wicklow at 17.9%.[40] Despite lacking an existing forest culture and history in the county, this figure illustrates a remarkable shift from the situation in 1973, when An Foras Talúntais found that just 6.3% of Leitrim's land area was occupied by state forestry. The growth in forestry in County Leitrim has proven to be highly controversial, bringing about significant landscape and societal consequences.

In its 1973 survey, An Foras Talúntais addressed the problems facing County Leitrim and aimed 'to bring about an overall improvement in the welfare of the people' by recommending alternative land-use systems.[41] One of the key findings of the report was that high growth rates for forestry species were possible, with 43% of the county capable of very high forestry yields and a further 28% capable of high yields. It was suggested that afforestation with fast-growing conifers might offer an economically competitive alternative land-use enterprise. In particular, the lowland drumlin soils in the south of the county were seen as having great production potential. Clearly, the focus of this study was on economic potential, with little regard for longer-term social or environmental consequences. At the time, a conifer monoculture based on Sitka Spruce was not seen as problematic.

Forty years later, in 2013, information presented by the Sligo/Leitrim Forest Owners Group revealed dramatic changes. In addition to 12,599 hectares of state forestry (just 2,000 hectares more than in 1973), its figures suggested that there were 13,156 hectares of private forestry in the county, owned by approximately 770 private forest owners who were mostly farmers.[42] The four decades from 1973 to 2013 clearly saw a significant increase in afforestation in Leitrim, with an increase from 6.4% to 16.9%, a figure which has continued to rise. From an economic perspective, the arguments made in the early 1970s appear sound. Given the limited potential of the land for other uses, and its clear suitability for forestry, it makes sense to invest in planting trees. However, afforestation is not just about making use of otherwise unproductive land. It also has very significant impacts on the landscape and, ultimately, on society, and for this reason, the increasing trend towards forestry in the county has become controversial and divisive.

Whereas many outside observers might consider afforestation to be an unmitigated good, particularly given recent increased awareness of the potential of trees to sequester carbon, the responses of those rural communities where the impacts are most immediately felt is more complex and less clear-cut. This was demonstrated by a study of the Arigna region, published in 2006, where Fléchard et al[43] examined the outcome of the afforestation programme with a particular focus on local responses. Their results described 'more local resistance to afforestation than one might expect',[44] although their study suggested that resistance was declining in the study area, largely due to improved public consultation in relation to the Coillte (semi-state) forests.

At the national level, forestry policy changed in the 1980s. Previously the emphasis was on planting forestry on state lands, with very limited afforestation undertaken by private landowners. Private sector planting increased dramatically in the 1980s, linked to the availability of subsidies which included both an establishment grant and an annual premium which was paid to compensate the landowner for the loss of production arising from afforestation over a twenty-year period. The outcome was that in 1990 the national rate of private planting exceeded state planting for the first time. However, it is noteworthy that the experience in Leitrim differed from this norm - already in 1986 there was more private planting undertaken (411.2 ha) than public planting (286.0 ha).[45]

Whereas forestry incentives were initially targeted at farmers in disadvantaged areas, the potential of forestry was quickly recognised by financial and commercial institutions which began to invest in forestry, buying and planting land via management companies. In Leitrim, private planting became characterised by a high proportion of non-farmers, in contrast with the rest of Ireland, at about 50% of the total area planted in Leitrim in 1992 (but down to 21% by 2000). This was resented by local landowners as it resulted in competition for land that they might wish to buy to consolidate their small holdings. As the *Leitrim Guardian* remarked in 1987, 'the issue of present-day forestry policy is essentially a question of the survival of Leitrim's population or their replacement by multi-national trees'.[46] The corporate nature of many forestry initiatives was seen in a negative light, with competition between such big investors and local communities being seen as detrimental to the latter. Already by 2000, a majority of interviewees considered that the extent of forest cover in Leitrim was excessive,[47] although another study found that those farmers who had afforested land in the region were satisfied with their decision to plant trees.[48] Similar sentiments have been echoed by both sides in a detailed survey undertaken by Leitrim PPN in spring 2019.[49]

Aside from resentment of external commercial interests, the trend towards afforestation in Leitrim has also become inextricably associated in the public mind with rural depopulation. As early as 1983, Sweeney noted the perception that 'trees replaced people'. As trees grew and blocked the view between neighbours, breaking visual contact with neighbours, a feeling of isolation was increased. Interviewees in Fléchard et al's study noted that dwellings were progressively surrounded by forests and were eventually abandoned. Whatever the actual cause of the abandonment, it was felt by those interviewed that there was a causal relationship with the forestry, further increasing the perception of forestry as an agent of depopulation.

Blanket afforestation using non-indigenous species, particularly Sitka spruce, has been a key issue in Leitrim. The visual impact on the landscape of the spruce monocultures was seen as being striking and intrusive, whereas native broadleaf woodlands were supported. In the Arigna case study area, just under 97% of the total forest cover in the area in 2003 was by conifers. Claims that Leitrim has experienced 'blanket planting' of a monoculture are supported by the National Forestry Statistics, which show that the conifer-broadleaf breakdown varies significantly over time. The year 2000 saw a low of 5.2% broadleaf planting, of 688.4 hectares, contrasting with a high of 38.5% in 2007. Although there has been significant fluctuation in the relative proportion of broadleaf to conifers in forestry plantations in the county, in every year for which data were obtained, between 1998 and 2016, the relative proportion of broadleaf planting in Leitrim was below the national average.

Research across Europe has stressed that, in order to be fully accepted by local communities, forestry must be seen as benefiting those communities and supplementing the local, rural economy rather than being purely perceived as a business venture. Increasingly, the role of forestry within rural development is considered in the context of landscape quality, rather than simply economic production, as was the case in the 1970s. In Leitrim, the importance of the natural environment both as creating an attractive place in which to live and in generating tourism potential is at odds with the forestry monoculture. There is generally a greater amenity value placed on broadleaf woodland, whereas commercial evergreens are perceived to be less attractive. Furthermore, there is a strong perception that forestry has had a negative impact on trout fishing, an important tourism asset in the region. At a meeting in Drumshanbo in July 2016, the IFA warned that hill-walking, cycling, fishing and agri-tourism were all threatened by the surge of afforestation. Pat Gilhooley, IFA vice chairman of

the national rural development committee, emphasised the importance of agri-tourism in Leitrim, stating that 'people won't come here to look at trees'.[50]

The degree to which forestry in Leitrim provides employment and economic multipliers in the county is much contested. The DAFM Forestry Facts and Figures Bulletin 2018 estimates that 565 people are employed in the forestry sector in the county.[51] The Masonite Ireland panel board mill in Carrick-on-Shannon which opened in 1997 now employs over 170 people. Indirect employers include McMorrow Haulage, based in Dowra, which transports over 3,000 tonnes of timber per week and has nearly 30 employees.[52] A number of small-scale timber users in the county, typically self-employed woodturners, woodcarvers and furniture makers, rely on hardwood species. In 2017 the total volume of timber harvested in the county was estimated at 141,000 m^3 overbark of which 46,000 m^3 was harvested by private forest owners. The value of timber sold by private owners in Leitrim that year was estimated to be in the region of €1,200,000. The Sitka spruce grown in Leitrim is processed in one of the eight main sawmills in the country, most likely Glennon Brothers in Longford, for use in house construction, fencing and pallets. These products are sold across Ireland and the UK, while the residues are used by Masonite to produce door-skins which are sold all over the world.[53] In a letter to the Irish Times in March 2019, Kenny McAuley of McAuley Wood Fuel based in Mohill made a strong argument in favour of the economic benefits of forestry in the county

> We are part of an important value chain within Leitrim: Timber grown in Leitrim by Leitrim farmers, planted and managed by Leitrim foresters, harvested by Leitrim harvesting contractors, transported by Leitrim haulage contractors, processed by Leitrim processing companies, and used by end-users in Leitrim often to produce products for a national and international market. It is a local and rural-based value chain that supports the rural economy in Leitrim.[54]

Leitrim afforestation II: investors vs locals

At the same time that the fracking debate was in full swing, and a decade after Fléchard et al's study of Arigna was published, tensions around forestry came to a head in summer 2016. In June, a well-attended meeting in Drumshanbo was told by IFA Regional Development Officer, Adrian Leddy, that the county was being 'unfairly targeted' by the national policy to increase forestry.[55] This issue was raised at the Dáil Adjournment Debate in June 2016 by local Fianna Fáil TD Marc MacSharry.[56] Although supportive of the 'honourable ambition'

of the forest service to increase planting nationally, he argued that traditional farming was under threat in Leitrim and that lack of planning regulations for forestry was an issue which was 'closing down communities' by reducing light and views. The county should not be approached as if it was a blank canvas, he suggested, pointing to examples in Cloone and Drumkeeran, claiming that:

> County Leitrim, west County Cavan and parts of Sligo are being targeted by wealthy speculators who can buy land at a cheaper price and, in some cases, pay a premium for land. The net result is that young local farmers who want to achieve some scale in their farming activities cannot compete.

MacSharry's belief was that larger operations were pushing local people and communities out of business, causing distress and imbalance in communities, although the Minister of State Andrew Doyle presented statistics suggesting that the majority of recent plantations had been planted by farmers rather than non-farmers (see Chart 4 below which shows changing balance between farmers and non-farmers 2009-2018).[57] The loss of light and views may have negative health effects. Over one third of the 118 respondents to Leitrim Public Participation Network's 2019 Consultation on Forestry Activities in Leitrim claimed to have suffered mental stress because of living beside Sitka Spruce plantations.[58] A key challenge is the fact that it is the Forest Service, rather than the county council, which controls planning, regulation, monitoring and enforcement of forestry. Locals feel that they have limited power to influence the afforestation process.

In the following month, the debate around poor regulation of afforestation in County Leitrim, together with the involvement of outside companies, or what the Irish Farmer's Journal termed the 'forestry fiasco', was discussed on national radio.[59] The chairman of the IFA in Leitrim, James Gallagher, argued that regulations were not being adhered to, with forestry being planted closer to houses and main roads than it should be, and cited an example of sixty-five acres close to Drumkeeran, although this was denied by Maurice Ryan, timber marketing manager of Green Belt, Ireland's largest private forestry company. The IFA chair also pointed out that farmers could not compete with outside investors buying land for forestry. The same issue was identified in an *Irish Times* article which suggested that whereas farmland in Leitrim could be worth as little as €2,000 per acre, land for forestry could command more than double the price (at up to €4,500).[60] The *Farmer's Journal* Land Price Report 2016 similarly pointed to the 'significant quantity' of land being bought up by forestry companies, with the highest price paid by a forestry company being €5,200 per acre. It also

noted that ‘in a number of cases, farmers were outbid by forestry companies’.[61] This fact is not disputed by the forestry industry. As Mark McAuley, chairman of Forestry Industries Ireland explains, the cash flow generated by forestry is very predictable. This enables the purchaser to calculate what return they can get on their investment and decide on that basis what they are willing to pay for the land.[62] When the Minister of State responsible for forestry, Andrew Doyle, met with an IFA delegation in Drumshanbo in July 2016, a number of issues were highlighted. These included the limited notice being given that local land was being planted, inability of farmers to financially compete against forestry companies in land purchase, and the lasting impact of blanket forestry on local business and communities.[63]

The ‘disproportionate’ level of afforestation in Leitrim has been frequently raised as a cause of concern. Independent MEP Marian Harkin who represented the area until 2019 claimed that Irish afforestation policies caused concern among EU officials because they ran counter to European Union policies which call for balance between afforestation, biodiversity and the maintenance of population and the social fabric of areas encountering intensive afforestation. ‘One EU official described Leitrim as a national sacrifice zone for sitka spruce and I fully agree with this sentiment.’[64] Emotive language also featured in a Seanad Éireann debate in February 2019, where senator Paul Daly (Fianna Fáil) argued the need for a proportional planting policy on a regional and national basis:

> There is a lot of unrest in the north-west of the country... There is a feeling among farmers in those areas that we have gone back to the Cromwellian edict, "To Hell or to Connacht" in the area of afforestation and we need to address this. We need to open the island as a whole to afforestation and we should not demean certain areas by imposing plantations.[65]

Although the general tenor of Leitrim County Council meetings in recent years has been anti-forestry, in January 2017 local Fine Gael councillor John McCartin defended the place of the forestry industry in Leitrim, in response to a motion from Councillor Justin Warnock (Fianna Fáil) which called on members to ask the EU Commissioner Phil Hogan whether it is EU policy to financially support what was described as an ‘unabated land grab’ in the county. Councillor Warnock claimed that 50% of agricultural land in the county was now planted with forestry and that entire communities would be displaced as a result.[66] Warnock’s position was supported by the Leitrim IFA treasurer, Maureen Murray, who said that the buying of land in the county for forestry by speculators and investors was ‘out of control’. Murray argued that it was wrong that people could sell their land for forestry to speculators

and still retain their payments under the Common Agricultural Policy, stating that 'the county is in uproar over what is happening.'[67]

While forestry in Leitrim has been contentious for a long time, recent changes in the regulations governing forestry premiums appear to have exacerbated perceived problems. The exchequer supports the establishment of forestry through the Afforestation Grant and Premium Scheme, which comprises 12 different grant and premium categories dependent on size and type of tree being planted. Until 2014, active farmers earned higher premiums for a longer period than non-farmers. Under the revised regulations which run from 2014-2020, payments to farmers and non-farmers were equalised.[68] This has facilitated mass plantation and encouraged increased investor interest. The appeal of investment in Irish forestry is clear. As GreenBelt's website points out: 'Forestry is one of the most secure commodities in today's markets - tangible, safe and growing even in the worst financial climates. It's part of the perfect investment portfolio blend.'[69] Added to this, the incentives offered by the Irish state to encourage afforestation can be availed of by investors, including tax-free premiums, while the establishment cost of forestry is fully covered by government grant. Leitrim's soil and climatic conditions are particularly suited to the growth of Sitka Spruce, which is a particularly valuable tree type. These beneficial conditions combined with relatively low land prices per acre mean that the county is especially attractive to forestry investors. Inevitably, this has caused local concern, eloquently expressed by Justin Warnock of Save Leitrim, who asks 'why in the name of God should the Irish taxpayer fund a big multinational company to grow trees in Co. Leitrim?'[70]

Leitrim is one of the counties with the highest proportion of non-farming investors in Ireland, at more than 40%, although CEO of forestry company Green Belt argued that many of that percentage were 'traditional rural folk' or 'part-time farmers'.[71] Nevertheless Pat Collins, chairman of the IFA's National Farm Forestry Committee, points to the removal of the farmer premium differential as being central to much of the local opposition to forestry. Quoted in an AgriLand report on 6 September 2018, Collins suggested that the perception of forestry had dramatically changed in rural Ireland, as 'the land is no longer owned by people living within the communities and any monies earned from grants, premiums and further timber earnings are leaving the local economy'.[72] In 2017, 383 farmers in County Leitrim received a total of €2,337,937 in forest premium payments in 2017, but it is unclear whether this money remained in circulation in the county. More revealing is the information provided in response to a Dáil question in January 2019, when minister for agriculture Michael Creed

provided a break-down of the €2.7 million in forestry annual premiums which was paid for forests planted in Co Leitrim in 2018 (see Table X below). While 78% of payments went to farmers, only 49% of payments were received by farmers living in the county. The minister pointed out that the 'non-farmer' category also included 'recently retired farmers and the family members of existing farmers who may also be living locally.' Overall, 44% of payments for forests in Leitrim were made to forest owners (farmers and others) living outside of the county.

[TABLE X: data available in main Excel spreadsheet]

Co. Leitrim: Breakdown of 2018 Forestry Premiums Paid		
	Amount paid in €	% of total premiums paid
Premiums paid to farmers who live in Co. Leitrim	1,344,308	49%
Premiums paid to farmers who live outside Co. Leitrim	802,762	29%
Premiums paid to forest owners (non-farmers) who live in Co. Leitrim	174,762	6%
Premiums paid to forest owners (non-farmers) who live outside Co. Leitrim	409,894	15%
TOTAL Premiums paid 2018	2,731,726	100%[73]

Local concerns with the situation have prompted the formation of Save Leitrim, a loose community of interest whose membership includes environmentalists, farmers and local councillors concerned about the future of the county. Some of the members were also active in the anti-fracking movement.[74]

[MAP OF AFFORESTATION IN LEITRIM 2017: source https://www.agriculture.gov.ie/media/migration/forestry/forestservicegeneralinformation/forestcovermaps/Leitrim.pdf]

In December 2017, The Economist reported from Leitrim as part of an article on forestry across the western world. 'Forestry subsidies and regulations have indeed distorted Ireland's land market. Farmers who plant trees get generous payments for 15 years, while continuing to receive ordinary farming subsidies. At that point, with perhaps 20 years to go before conifers are harvested, they often sell to pension funds and other investors. Forested land in Ireland hardly ever returns to farming. To help speed national afforestation, the government requires that land cleared of trees must be planted with new trees (which are not subsidised).'[75] Brian Smyth of Save Leitrim echoes this point, stating that once the land is planted it is effectively 'sterilised' or 'concreted over' for a minimum of 70 years (approximately two cycles of planting), with a hugely detrimental impact on the local community.[76] The choice of language is telling. Commercial forestry on the scale evident in Leitrim has resulted in an industrial landscape which is quite different to that of broadleaf woodlands with their rich leisure and amenity value. He also points to the phenomenon whereby forestry effectively acts as a de facto retirement scheme for older farmers. Applications for planting licenses are generally made by landowners, but the land frequently goes on the market thereafter. Akin to the urban householder who obtains planning permission for a dwelling in the side garden prior to putting their house up for sale, obtaining a planting license adds a substantial premium to the price paid for the property. Once it is sold the land is generally then consolidated into investment portfolios.[77] This explains much of the difficulty in establishing the degree of external involvement in forestry in Leitrim.

The increasing scale of forestry-driven landscape change in Leitrim has driven much of the recent opposition to afforestation. The Society of Chartered Surveyors Ireland report on forestry land prices in Ireland notes recent demand from 'institutional investors and international investment funds for larger holdings and forestry portfolios.'[78] In the past, farmers would plant a small amount of their land as part of a broader farming strategy, whereas increasingly whole farms are being planted. A vicious circle is established whereby depopulation and afforestation become mutually reinforcing. The demographic history of the county comes into play, as elderly bachelor farmers either sell up or will their land to relatives based in other parts of Ireland or further afield. Without local place attachment, these recipients are more likely to afforest the land themselves or sell to forestry investors, which in turn makes services such as post offices and rural schools less sustainable, and the locality less attractive to incoming population. This experience has been well articulated by the Irish Natura and Hill Farmers Association, a nationwide representative group for farmers

on hill designated and environmentally valuable land, which established a forestry campaign in January 2018 calling for 'The Right Trees, in the Right Place, under the Right Management.':

> Local communities endure hard times as plantations rise higher and the locality becomes darker. Leitrim feels this keenly being the most planted county in the state. Money that once circulated in the mixed rural economy now goes into bank accounts for nest eggs. Schools and clubs dwindle in numbers as farms are sold and close up. Rural dwellers feel the black cloud on and around them, prompting many to come together to fight this flawed approach to forestry.[79]

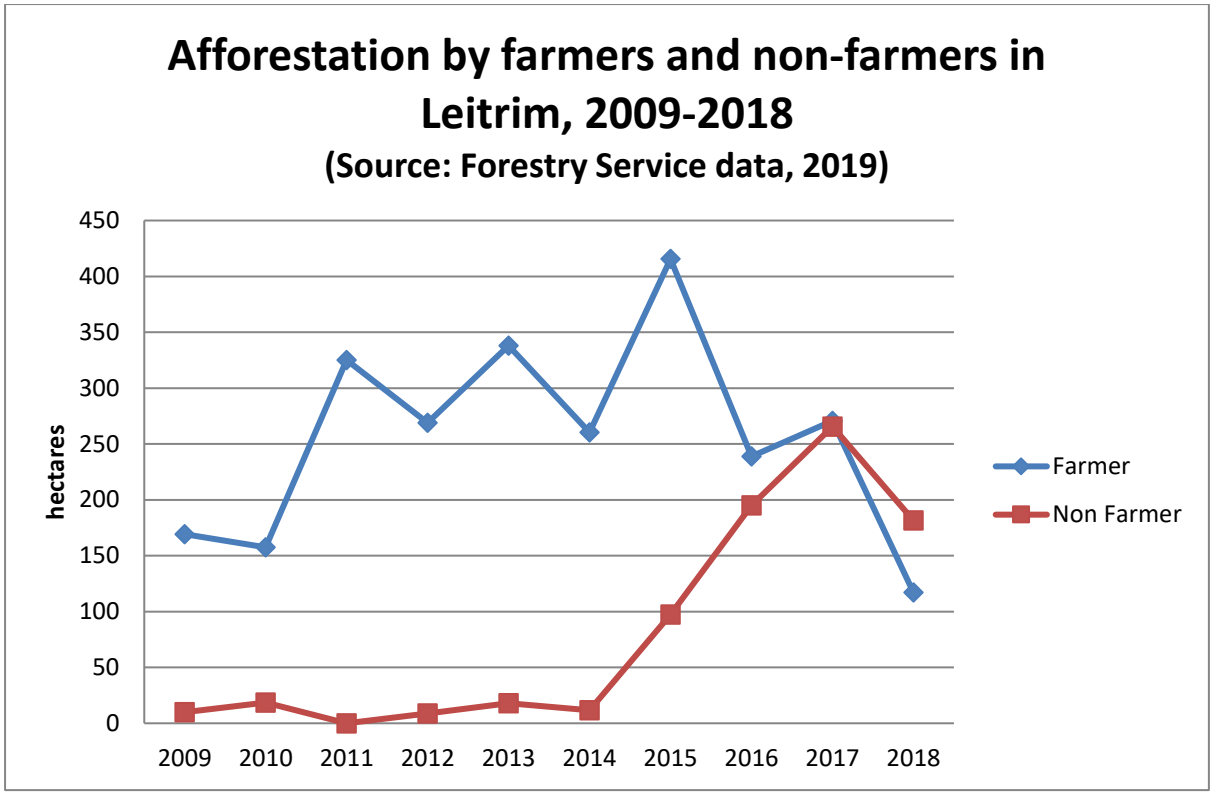
Detailed information on the nature of external investment in forestry is notoriously difficult to access. Save Leitrim cite examples of Dutch, Danish and Norwegian investment funds, as well as a Canadian teachers' union pension fund, which has acquired forestry in Leitrim. Land Registry searches have been conducted in a piecemeal fashion to date, but demonstrate that 15 of 20 sites in one particular area were owned by foreign investment funds.[80] Meanwhile, INHFA spokesman Gerry Loftus has called for greater transparency in relation to the payment of forestry premiums: 'The general public is entitled to know if Irish taxpayers are subsidising the profits of multi-nationals and absentee landowners.' The organisation has also proposed that payment of future premium and establishment grants for forestry should require the recipient's main residential residence (or company headquarters) be located within 50km of the forestry site. This approach 'would not impact on local farmers who wanted to plant some of their land, but it would eliminate companies and others coming to counties such as Leitrim and using that land potential as a carbon right-off at no cost to them but enormous cost to the local community.'[81]

One example can be used to demonstrate how the forestry investment process works. Forestry company Veon (previously FEL) manages approximately 20,000 acres nationally, and according to its website it is Ireland's leading purchaser of land and plantations. It offers 'forest portfolio profiling and management services to farmers, land owners, high-net-worth investors, pension funds, institutional investors and family wealth offices', claiming to have generated more foreign direct investment into Irish forestry than any other Irish forest management company.[82] An Agriland report on 21 May 2019 detailed the 'single largest private forestry transaction in Irish history' which had been completed by Veon.[83] The deal

involved the sale of a portfolio of 4,074ha (10,067ac) portfolio of mature Irish forests for an undisclosed sum. Veon undertook the sale on behalf of 12,400 retail forestry investors in the Irish Forestry Funds. The purchaser was AXA IM – Real Assets, acting on behalf of clients. The UK's largest commercial forestry manager Gresham House Asset Management (GHAM) was subsequently appointed as the exclusive asset manager to the portfolio, while Veon was retained to provide forestry management services. While county Leitrim was not specifically mentioned in relation to this transaction, the deal must certainly include some forestry in the county, given that the very large portfolio was divided across 185 different estates. Indeed the announcement highlights the fact that location is of little concern to the investor who is merely interested in the rate of return on their investment.

In January 2019, the Irish Farmers Journal reported that protests over accelerated afforestation in Leitrim were discouraging forestry investors from investing in the county. [84] Mark McAuley, representing the forestry industry, said that this impact was difficult to quantify, and that forestry activity was still taking place.[85] In a Newstalk report in June 2019, reporter Barry Whyte suggested that social pressures were currently discouraging some local farmers from becoming involved in forestry. [86] Although it will take some time before official statistics for 2019 become available, the most recent data show a decline in afforestation in 2018. They also show that, for the first time in 2018 non-farmer plantations in Leitrim exceeded those of farmers, although the total amount of afforestation declined for both groups. A notable feature of the graph is the increase in non-farmer involvement after 2014.[87]

[GRAPH: see Excel spreadsheet titled 'data for afforestation graph']



On 30 January 2019 a major protest was held outside the Dáil, spearheaded by the Save Leitrim campaign, but with representation from other communities across Ireland which have been negatively affected by afforestation. Their slogan 'communities not conifers' encapsulated their calls for measures to support rural communities and to reduce the emphasis on a conifer monoculture.[88] Ongoing pressure from local environmental and farming groups, particularly Save Leitrim and the IFA, undoubtedly prompted the Minister of State at the Department of Agriculture, Food and the Marine, Andrew Doyle's announcement on the same day that he had commissioned an independent study into the socio-economic impact of forestry in Leitrim. The study, led by Dr Áine Ní Dhubháin and Dr Julie Ballweg of UCD, is due for completion in August 2019.[89] However, the limited terms of reference were a source of disappointment for members of Save Leitrim. They contend that the substantial difference between the economic multipliers of farming and forestry for the local community needs to be recognised.[90] Leitrim County Council is largely supportive of the stance taken by Save Leitrim, with negative views towards commercial forestry frequently being expressed at council meetings. A typical example is the vow in July 2017 by independent councillor Gerry Dolan to 'take the law into his own hands in order to stop more

forestry being planted in Co. Leitrim, especially by multinationals with "no connection to the county"'.[91] Leitrim County Council has begun to object to felling licenses on the basis of landscape character.[92] The County Development Plan is under review with a view to increasing the impact of land-use management in order to regulate forestry. However, national policy takes precedence in cases where there is a conflict of interest. Brian Smyth of Save Leitrim points to the ban on fracking which was included in the Leitrim Development Plan, effectively stepping beyond the official remit of the council. This move at county council level initiated a process which ultimately led to the fracking ban in the Oireachtas. The group is hopeful that a county plan which restricts and controls afforestation will similarly result in government-level attention to the issue. Their campaign is focused on changing government policy and the legal framework around forestry, to ensure proper oversight and to reduce the environmental and social costs of current afforestation policies.

Industry representative Mark McAuley has stated that forestry interests are very conscious of the need for positive, community-orientated forestry operations in Leitrim, recognising that the situation at the time of writing (July 2019) is 'quite tense'. Part of the issue, he suggests, is that forestry is currently at a 'pinch point,' where many old growth forests are reaching maturity. Once these are opened up with roads and pathways following clear-felling the forests will become more attractive and accessible. New planting will be more sympathetic, including 15% broadleaf and 15% biodiversity elements rather than the pure monoculture which was a feature of older plantations.[93] Given the current national climate action plan and the perceived benefits of forestry for carbon sequestration, it is likely that forestry will continue to be a feature of life in Leitrim for generations to come. Indeed, in a recent interview for Newstalk radio, John O'Reilly, CEO of GreenBelt, said that he expected afforestation in Leitrim to reach 25% of the county's land area by early 2020.[94]

As the debate continues with no resolution in sight, it appears that Leitrim once again is suffering from the unintended outcomes of a well-intentioned policy to bring about improvements in the county. There are clear parallels with the Rural Renewal Scheme which brought high hopes for economic and social boost to Leitrim, but which instead led to serious negative outcomes for the county. In this case, tax-free premiums on planted land have attracted many outside investors to acquire land in the county. Without stronger planning controls, at the very least, while these incentives remain it seems likely that the controversy over afforestation in Leitrim will continue.

Energy potential, environmental impacts: fracking and windmills

The importance of land and landscape to the people of Leitrim, exemplified in the afforestation debate, was at the heart of opposition to a proposal which could have brought significant economic prosperity to the county but at an enormous environmental cost. Between 2010 and 2017, County Leitrim found itself at the centre of national controversy concerning the possible use of 'fracking' (hydraulic fracturing) techniques to extract energy from shale. The story of potential natural resource exploitation with likely environmental damage once again reveals some of the challenges facing a county where harsh economic reality and environmental concern are at odds. Yet, the story of the successful resistance to the proposed mining is an excellent illustration of the community spirit and positive thinking that may, in fact, be the key to the survival of this most rural county.

The technique of hydraulic fracturing, or fracking, is used to extract gas and oil from shale rock, providing access to hard-to-reach sources of oil and gas. Also known as UGEE (unconventional gas exploration and extraction), the process involves drilling deep into the earth and then pumping a high-pressure mixture of water, sand and other chemicals through the system to fracture the rocks, causing the release of the gas and oil inside, which then flows to the head of the well. The process may be carried out vertically, but more commonly, miners drill horizontally into the rock layer to create new pathways to release the gas. Proponents suggest that fracking of shale gas could contribute significantly to future energy needs and create employment. Its use in the USA is believed to have boosted domestic oil production, driven down prices, offered gas security for about 100 years and provided an opportunity to generate electricity at half the carbon dioxide emissions of coal.[95] However, the environmental implications of the process have increasingly become a cause for concern.

Ireland's fracking story began in March 2010, with an announcement from the Fianna Fáil/Green Party government that applications were being invited for 'Onshore Licensing Options over the Northwest Carboniferous Basin (also known as the Lough Allen Basin) and the Clare Basin'.[96] These two locations, the first of which includes the area of county Leitrim, were believed to hold significant reserves of shale gas, which the government was keen to exploit in order to ensure energy security by reducing reliance on imported fuels. The economic attractiveness of the proposition was self-evident; estimates suggested that rock strata under the Lough Allen basin contain 9.4 trillion cubic metres of gas, worth around €120billion at then-prevailing market prices.[97] At the time, the Minister of State for Science, Technology, Innovation and Natural Resources, Conor Lenihan, stated that 'Finding and

producing our indigenous natural gas resources is critical to enhancing Ireland's security of energy supply and reducing our reliance on imported fuels'.[98]

The timing of the invitation, however, coincided with a series of stories which had begun to emerge concerning the problems around the industry, particularly water pollution problems experienced in parts of the USA where the activity was underway. When the award-winning US documentary film 'Gasland', which highlighted problems caused by the use of the hydraulic fracturing process to extract shale gas was released, also in 2010, it became a catalyst for the growth of protest campaigns against fracking in the US, UK, South Africa, Poland, Romania and in Ireland. Already, therefore, before the first of the onshore licensing options was offered in February 2011, opposition to the potential future extraction operations was growing. The three licenses awarded in the Republic permitted exploration in large areas covering eleven counties. Two licenses were awarded for exploration in the Northwest Carboniferous Basin which includes County Leitrim, to Australian mining company Tamboran Resources, which also held a license for exploration in neighbouring County Fermanagh (for an area covering 243,635 acres) and to Lough Allen Natural Gas Company (Langco) (for over 115,398 acres). This initial licensing covered geological sampling and desktop surveys to assess the viability of gas extraction in parts of Cavan, Leitrim, Roscommon and Sligo. Meanwhile, the perils of fracking were highlighted in 2011 when the use of the fracking process for the first time in Lancashire, England, caused two small earthquakes and the voluntary suspension of operations by the mining company involved.

Community activism came to the forefront in the anti-fracking campaign, with the ad hoc 'Love Leitrim' community group featuring among those which waged a highly visible and ultimately successful crusade to ban the unconventional extraction of gas in the region. Tamboran's initial investigations in Leitrim and Fermanagh confirmed the existence of a substantial natural gas reserve which could bring 600 direct jobs and up to 2,400 indirect jobs, as well as a guaranteed gas supply for four decades. [99] The company's chief executive Richard Moorman was quoted as describing the project as 'a potential energy and economic game changer for Ireland'. However, neither the local community nor environmental groups were swayed by these economic arguments, instead focusing on the potential environmental devastation which could result from the use of the controversial technique.[100] Following the Australian company's announcement, a small group of protestors gathered in the border village of Glenfarne to register their concerns with the proposed development. Anti-fracking groups in Leitrim and Fermanagh co-operated in a cross-border campaign. This was to be the

start of a lengthy campaign which ultimately successfully opposed the proposed introduction of fracking to Leitrim and to Ireland more generally. While the campaign involved grassroots movements from across the country, a special mention must be given to 'Love Leitrim', formed in late 2011 'with the purpose of preserving and promoting the quality of life in our part of the world'.[101] Their campaign identified the fracking issue as a national and international one, going beyond local interests alone. Theirs was a community-based initiative which emphasised the promotion of the positive aspects of Leitrim, and Ireland, and lobbied local and national representatives on that basis.

While initially the economic potential of fracking appeared to be attractive to national government, local opposition arose and this was reflected in votes by the county councils in potentially affected counties (including Sligo, Clare and Leitrim) to ban the process. In Leitrim, which had reserves of shale and neighboured locations in Northern Ireland where fracking had been proposed, pressure was exerted on local politicians to address the issue in its new county development plan.[102] Eventually, in Section 3.11.7 of the Leitrim County Development Plan 2015-2021, headed 'unconventional gas exploration and extraction', fracking was specifically discussed. It stated that the 'precautionary principle' would be adopted in respect of development with significant environmental implications. The Council 'wishes to safeguard and nurture the unspoilt/green image and reputation of Leitrim and the health of its present and future communities'.[103]

As local politicians were influenced by their concerned constituents, so too, eventually, were politicians at the national level. In June 2016 it was a TD for the Sligo-Leitrim constituency, Tony McLoughlin, who introduced a private member's bill to ban the process of hydraulic fracturing in Ireland. As reported by the *Irish Times*, the bill received widespread support from across the political spectrum, as well as overwhelming public support. Of 8,000 submissions to the public consultation undertaken in early 2017, only one opposed a ban.[104] The Petroleum and other Minerals Development (prohibition of Onshore Hydraulic Fracturing) Bill 2016 was passed on 31 May 2017 amid rounds of applause and sent to the Seanad, where it completed its final stage on 28 June 2017 and was referred to the president to be signed into law. Ireland is the third European country, after France and Bulgaria, to ban the practice of fracking. The legislation marked the successful culmination of a six-year campaign of lobbying, demonstrations, petitions and publicity events by campaigners against fracking.[105]

Interviewed following the passing of the anti-fracking legislation, the spokesperson for Love Leitrim, Eddie Mitchell, explained some of the rationale behind their organisation. He suggested that theirs was a small community which had to 'fight for its life', 'people didn't have a choice but to get involved, this is our home, where our families are from, where our people are buried and these fields are the place where our children play.' Describing the thinking behind Love Leitrim's successful campaign, Mitchell pointed to the way in which the entire community was engaged through participation and empowerment.

> We are proud of where we are from. We are proud of Leitrim and Ireland. We wanted to reflect what Leitrim was about, farmers, fishermen, artists, professionals, parents and about sustainability. This is about Ireland. We knew we wouldn't win unless we brought everyone along. We understood that we had to convince everyone. We knew that we had to be non-political. We had to win over hearts and minds.

The thinking behind the successful campaign shows how even relatively small communities such as those in Leitrim can gain power and influence if they are well organised and united.

The overwhelming opposition to proposals for fracking in Leitrim contrast with the reception of an alternative form of energy, wind power, which also has quite dramatic landscape impact. Leitrim's ten wind farms generate approximately 2% of national capacity (based on 2016 data) and power the equivalent of 45,000 homes, making the county carbon-neutral.[106] The earliest turbines were erected twenty years ago, with two locations on the Leitrim-Roscommon border near Arigna selected for a total of ten turbines at Corrie Mountain (Arigna) and Spion Kop. Subsequent developments at Blackbanks, Moneenatieve, Garvagh Glebe, Tullynamoyle, Carrickheeney and Faughary, mean that wind turbines are now a familiar feature on the Leitrim skyline. Their location has not been without its controversies, particularly after the bog slide associated with the construction of the thirteen turbine Garvagh Glebe wind farm outside Drumkeeran in 2008, which flowed over roads and caused a fish kill in the nearby Owengar river. More recently, a North Leitrim man was killed tragically in December 2016 following a landslide while working on Derrysallagh windfarm near the village of Ballyfarnon, on the border of Sligo, Leitrim and Roscommon.[107]

Nevertheless, the rapid development of Leitrim's windfarms has been achieved with compromise and community buy-in despite the necessary environmental compromises, including accidents and visual impact on the landscape. The county has been described as being at the forefront of the future model for energy generation, namely de-centralised

production and storage with the potential for increased local ownership. This relatively positive story of the utilisation of one of the county's natural resources (wind energy) contrasts with the experience when potential extraction of shale gas by the controversial 'fracking' process was proposed.

Conclusion

Different perspectives can be brought to bear on County Leitrim, all of which will impact its future. Using one lens, Leitrim could be considered empty or under-utilised, with natural resources which ought to be exploited to the full. This view would point to continued afforestation and wind farming as the most desirable and viable future for the county. By contrast, Leitrim's tourism potential, with its attendant economic benefits, seems to lie in its continued 'emptiness', and thus sits in direct tension with the forestry lobby. In addition to the tensions between these various land uses and the different possible futures which they suggest, Leitrim is at the mercy of decisions made at national and international level. In the past, the county benefitted from its border location and the Peace Process through a range of EU grants and cross-border initiatives including the Shannon-Erne Waterway. With the advent of Brexit, this border location may yet prove to be problematic for the county. On a more positive note, the county has many unique features. Its long-standing organic movement and environmentally-positive developments such as the anti-fracking success and Greenbox initiative, together with its attractions for artists and alternative lifestyle movements, could hold the key to future development, driven by small-scale community enterprise.

Despite the many challenges facing Leitrim, its population can look to the future with optimism. Perhaps it is something to do with the landscape itself and the experience of rural isolation, but whatever the cause, there is a certain tenacity and strength of character in the Leitrim people. This may explain the vociferous nature of recent campaigns which demonstrated a striking capacity to unite behind a common cause, whether it be obtaining a Purple Flag or opposing proposed fracking. The resilience of this 'loneliest county' is undeniable.[108] Whatever paths are taken into the future, the character of the people and the beauty of the landscape will survive.

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