

AIFC Position Paper on Land Availability – Acid Sensitive Areas - May 2016

Forests provide a range of raw materials for industry as well as services to society.

One particular service provided by forests - climate change mitigation – works by removing and locking up carbon dioxide from the atmosphere. In the Irish context this entails the need to continue afforestation at a level in the region of 15,000 to 20,000 hectares per annum for the next two decades. Achievement of this goal will not only sustain the ability of the national forest estate to remove carbon dioxide from the atmosphere and store it in the vegetation and soil. It will also provide a renewable energy resource and a sustainable raw material for construction, a range of other timber uses and other Environmental and Social benefits.

Expansion of the national forest estate is a key component of national climate change and land use policy

The average afforestation levels over the last 5 years has been 6,000 to 7,000 hectares per annum.

There are a number of issues affecting land availability for afforestation, one particular difficulty is that the planting programme is being restrained by a lack of current scientific research which can defend against spurious assertions and promote our forest industry.

Acid Sensitive Designation

This designation has had a significant adverse impact on afforestation levels in a number of counties over the last ten years. Many professional Foresters and Agriculturalists have questioned the science being applied, particularly in relation to enclosed agricultural land (typically rushy fields) that in most cases is ideal for Afforestation.

Much of the research studies in relation to acidification focuses on the potential negative impact of afforesting open moorland underlain by acid rock, while Foresters and Land owners are being refused permission to plant trees on improved enclosed agricultural land with inherently better buffering capability.

The main farming enterprise on this land type is livestock production. The hypothesis of possible negative acidification impacts of forestry canopies scrubbing aerosols (mainly Nitrogen and Sulphur compounds) from the atmosphere does not take into account the positives associated with forestry versus continuing with current agricultural practices in particular methane emissions from the livestock.

We have yet to see a report that looks at the positive and negative impacts on the environment of continued cattle production versus the positive and negative environmental impacts of forestry on the same acid sensitive enclosed farmland.

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The Acid Sensitive Designation is now 25 years old, it was brought in at a time when the threat of acid rain was one of the main environmental concerns in Europe. The designation needs to take account of industrial and technological changes in the last quarter century. It also needs to measure what was predicted against what has actually occurred in terms of acidification outcomes. National and international legislation has resulted in reduced and cleaner emissions from heavy industry especially in Sulphur.

The threat posed by airborne pollutants in the atmosphere being scrubbed by coniferous forest canopies on the western half of Ireland, given that the prevailing wind in is predominantly from the southwest, has to be minimal and the present designation represents a dramatic overkill.

Is this Acid Sensitive designation a genuine effort to protect and improve water quality or a crude instrument to stop conifer afforestation particularly when the anti-coniferous and anti-forestry lobbying context of the time is considered?

Replacing uneconomic livestock production which is the main farming activity in these areas with forestry would have many measurable environmental and financial benefits. As John Shirley pointed out in the 'Farming Independent' it makes eminently more environmental and financial sense to control rushes with trees than with MCPA.

Doubling our current rate afforestation has been highlighted by government as being central to Irelands Climate Mitigation Strategy.

It is essential that the current measures which exclude over 150,000 hectares of productive land, solely on the basis of Acid Sensitive Designation, be revised to allow all enclosed farmland at least suitable for GPC3 (10% Diverse Conifers) category to be afforested. The threat posed to our climate is from excess carbon and not acid rain.

(GPC 3 is 90% Sitka spruce and 10% other species)

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CATTLE FARMING	FORESTRY
GHG Production (Carbon Emissions)	Carbon Sink
Annual broadcast application of NPK (Compound Fertiliser) and in many cases 2 applications per annum. This equates to 25-50Kgs of pure N per ha/yr. N of course decreases pH of soil	One application of P Ground Rock Phosphate (GRP) @ 250kgs/ha in 30 years. GRP has pH of 8+ and actually increases pH of soil
Annual control of soft rush by topping with machinery and broadcast spraying with MCPA (Herbicide) to achieve GAEC (Good Agricultural and Environmental Condition) and minimal setback from watercourses	Manual control of vegetation for 4 years with perhaps one to two spot sprayings with herbicide (Roundup) over 30 years (i.e. 25% of area). No spraying within 10m of watercourse
Land can be ploughed or tilled as frequent as farmer wishes and will have 90% topsoil disturbed leading to significant carbon release	Land mounded year 1 in 30 year cycle with approx 6% of topsoil disturbed.
Slurry from animal production is applied to 100% of field equivalent of 15Kgs N/ha/per annum. More GHG to the atmosphere	No animal waste applied
Heavy machinery used on the farm several times per annum	Machinery only used for thinning and felling (Max of 5 times in 30 year rotation)
Forcing marginal agriculture on poorer surface water gleys	Highly productive forest areas
Runoff of rainwater into drains with minimal vegetation to slow it down	Trees are interceptors and slow water cycling. Silt traps in all forestry drainage
Farming right up to watercourses	Setback 10 meters from watercourses for all operations
Animal drinking areas in watercourse and animals may also defecate in watercourse	N/A
Minimal wildlife areas. Confined to hedgerows in main	Entire plantation has wildlife habitat potential
Poor farming outcomes and marginalisation	Better livelihoods