







# **Objectives of Project**

1.

Impacts of incorporating agroforestry practices, such as small woodlands, on dairy and drystock farms

2.

Collate information on the management of existing and the establishment of new trees

3.

Investigate farmer attitudes, perceptions and willingness to plant trees and adopt agroforestry practices



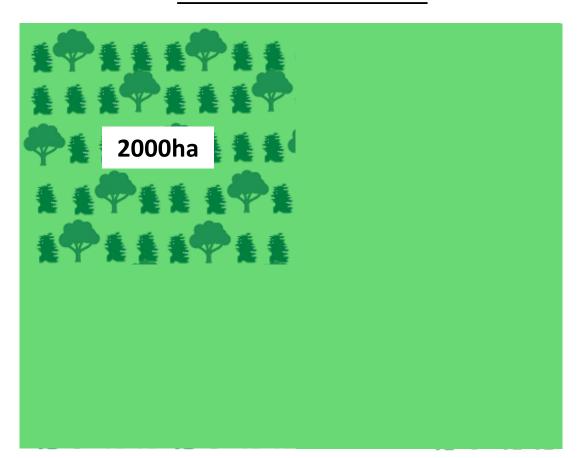






# **Agroforestry in Ireland**

#### Afforestation in Ireland



### **Grant/Premium Category (GPC) 11**











# Importance of Study

- 1 ha of trees would be required on every EU farm as a potential initiative of the Post-2020 CAP.... agroforestry
- Eco-schemes



€€€€€ # uptake











# Methodology – Theoretical framework

In my opinion, planting trees on my farm is good for the environment through sequestering carbon and protecting wildlife.

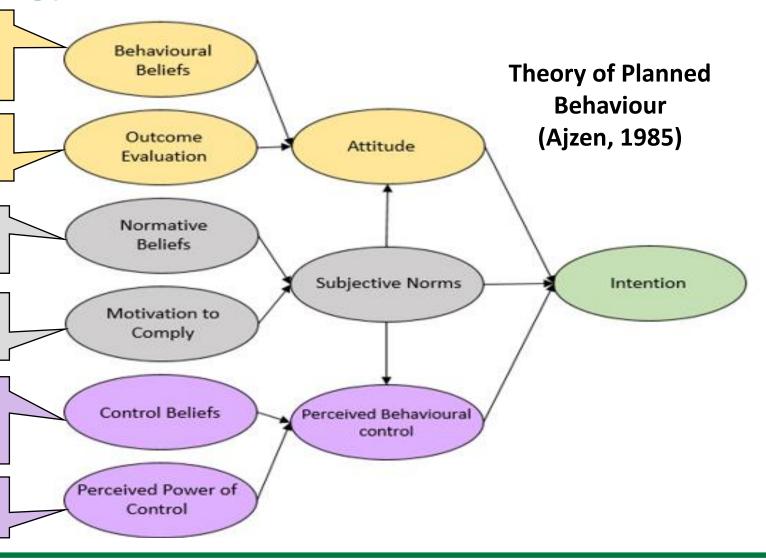
I think it is important to plant trees on my farm to increase my income.

The people whose opinions I value would want me to plant trees on my farm.

Planting trees on my farm is up to me.

I am not confident enough to plant trees on my farm as I feel I do not have sufficient knowledge.

Planting trees on my farm is not feasible as I do not have all the necessary resources to plant.











Methodology

## **Qualitative Elicitation Study: Interviews**

- Farmers from 6 out of the 12 advisory regions (n = 33)
- Open-ended questions based on the Theory of Planned Behaviour
- Zoom
- Recorded and transcribed
- NVivo















# Methodology

### **Quantitative Study: Online questionnaire**

- Advertised via a number of publications
- Dairy and drystock farmers (n = 415)
- SPSS and SmartPLS

# Have your say on trees

In recent years, there has been increased emphasis on the multiple values of trees on farms. MSo Walsh Soholar Rachel Irwin is conducting an online survey of dairy and drystock farmers' perceptions of, and attitudes towards, trees on farms.

The results of this study will be collated and analysed to aid policy and help oreate guidelines for policy makers.

To anonymously complete the survey, please either soan the QR code with your smartphone or go to https://tinyurl. com/fki3n85z.













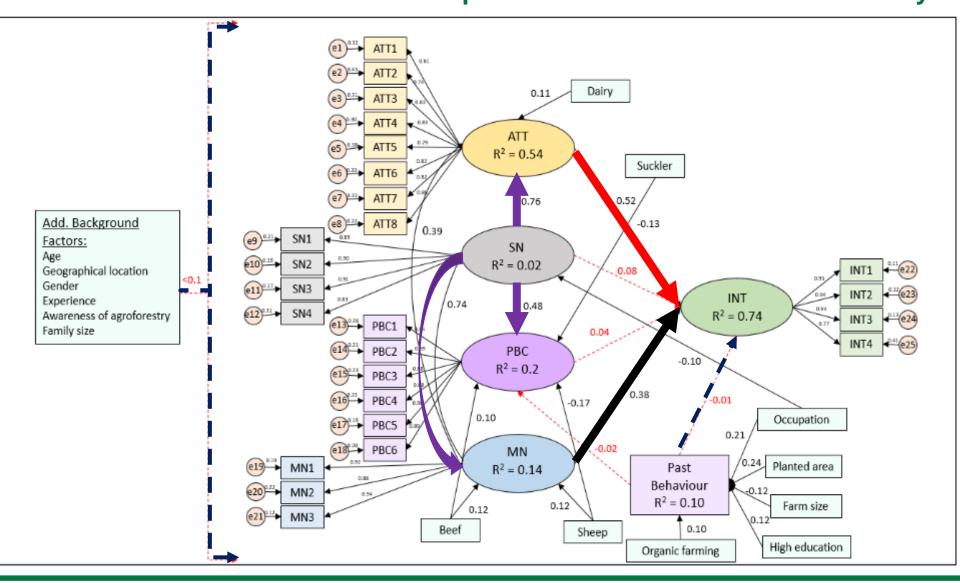








# Results to Date – PLS SEM Intentions to plant trees on own farm in next five years



Attitude had greatest direct effect on Intention  $(\beta = 0.52)$ 

Moral norms ( $\beta = 0.38$ )

Subjective norms had greatest total effect ( $\beta$  = 0.78) through directly impacting Attitude ( $\beta$  = 0.76), Perceived Behavioural Control ( $\beta$  = 0.48) and Moral Norms ( $\beta$  = 0.74)

No significant effect of Background Factors nor Past Behaviour on Intention









## **Results to Date**

#### **Subjective Norms - Influential People (Likert scale)**

- 1. Family -> 79% (n = 314)
- 2. Teagasc -> 68% (n = 268)
- 3. Other farmers -> 59% (n = 234)

#### Table 1: Influential person or organisations scored 5 and above.

Influential person or organisation	Frequency (n)	Percentage (%)
Family	314	79
Teagasc	268	68
Other farmers	234	59
Close friends	212	54
Policy makers	160	41
Forestry company	158	40
Newspaper articles	116	29
Neighbours	104	26
Vet	55	14
Social media	53	13

Note: Participants could select one or more options.









## **Results to Date**

#### **Intentions – Locations of trees (Likert scale)**

- 1. Along field boundaries -> 71% (n = 281)
- 2. On marginal land -> 39% (n = 156)
- 3. Along watercourses  $\rightarrow$  27% (n = 107)

**Table 2: Intention to plant trees** 

Intention to plant trees	Frequency (n)	Percentage (%)
Along field boundaries	281	71
On marginal land	156	39
Along watercourses	107	27
In a block plantation	86	22
Scattered in pasture	83	21
Around houses or sheds	77	19
No intention to plant trees on my farm in the next five years	42	11

Notes: Participants could select one or more options.









## **Results to Date**

#### **Knowledge of Agroforestry**

- Scattered managed trees in pasture (64%)
- Trees planted in a linear format to provide a windbreak or shelterbelt (41%)
- Trees within hedgerows (29%)

Table 3: Statements relating to participants perceptions of agroforestry

Statement	Frequency (n)	Percentage (%)
Scattered managed trees within pasture.	252	64
Trees planted in a linear format to provide a windbreak or shelterbelt.	162	41
Trees within hedgerows.	116	29
Trees planted along a watercourse such as a river or stream.	95	24
Naturally occurring trees that are present within an agricultural context that are neither managed nor part of the farm.	82	21
Trees in a plantation forest where livestock are omitted and only timber is harvested.	76	19
Scattered unmanaged trees within pasture.	44	11
None of the above	9	2

Notes: Participants could select one or more options.

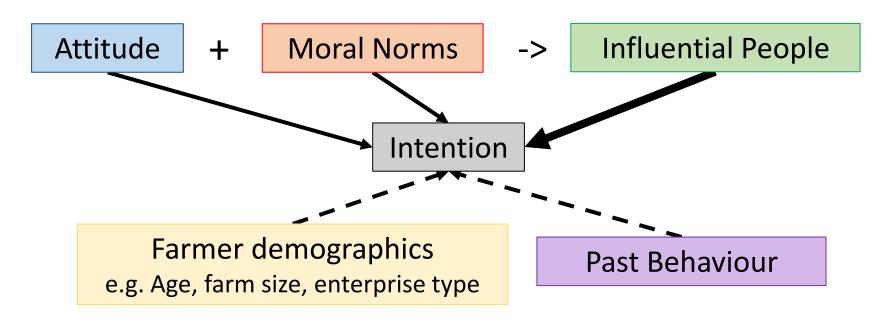


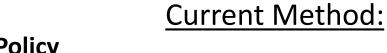


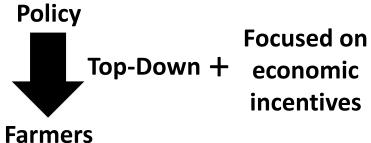


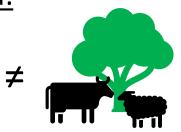


# **Overview of Main Findings to Date**









## **New Method:**

Promotion by Co-design/ coinfluential + creative = people systems



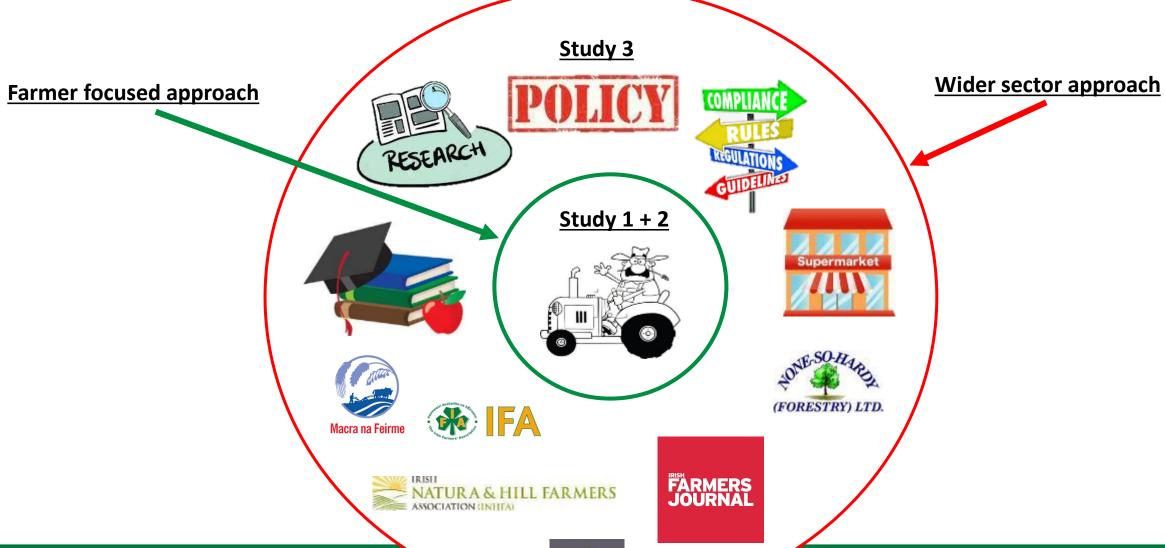








# **Future Research**















## **Future Research**

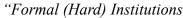


#### **Innovation System Approach**

- Wider sector approach
- Failures within the innovation system = blocking mechanisms
- Qualitative analysis: interviews with key actors within each of the four domains:
  - Research Domain
  - **Intermediary Domain**
  - **Enterprise Domain**
  - Influencing Domain

Results of the research will be used to inform policy and create guidelines for increasing agroforestry within Ireland.

**Science and Technology Policy International Actors Political System Other Sectors Agroforesters Teagasc Advisors** Tree nursery Agricultui stem **Private Consultants** Contractor **Research Domain Intermediary Domain** Agricultural Research **Enterprise Domain** (Bridging Institutions) Systems: (Value chain actors Stakeholder Platforms Public sector and organisations) - Industry working groups Private sector Agricultural producers Agricultural Extensions: Civil society Consumers Public sector Agricultural Education Processing, Private sector Systems: distribution, wholesale Researchers Primary Civil society and retail University Integration in Value Secondary Input Suppliers **Lecturers Tertiary** chains **Influencing Domain (Influencing** 



**Teagasc** 

- General policies and regulations
- Innovation policies

# **Environment**)

Consumers, Policy makers, NGOs, Complementary Markets, Industry Representative/Lobby Groups Physical and financial infrastructure \_

"Informal (Soft) Institutions"

- **Traditions**
- Behaviours, attitudes and mind-sets
- **Practices**











# **Thank You**

- Link to project website:
  - https://www.teagasc.ie/crops/forestry/research/small-woodlands-on-farms/
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