Evolution of farm data collection in Ireland
The lessons that have been learned

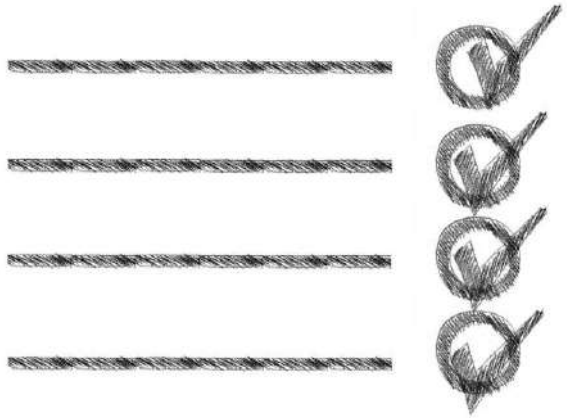
Trevor Donnellan, Emma Dillon, Brian, Moran and Cathal Buckley
Agricultural Economics and Farm Surveys Dept.
Teagasc, Ireland

European Evaluation Help Desk Workshop
16 & 17 March 2021

trevor.donnellan@teagasc.ie

www.teagasc.ie

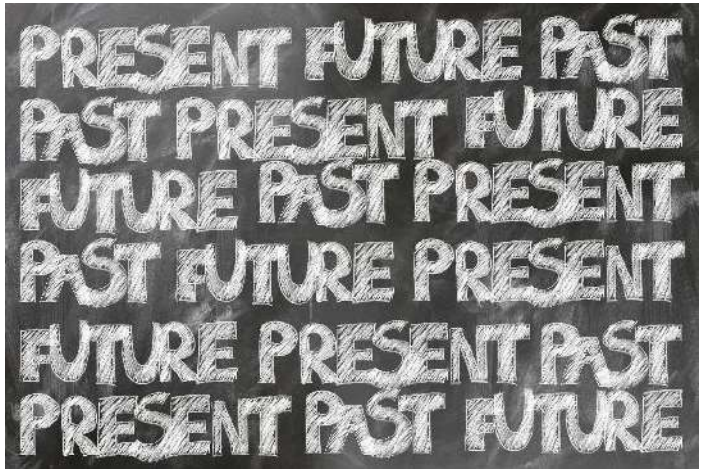
Overview



- Brief background/context
  - the story behind our expansion in data collection
  - motivated by both national demands and FLINT project participation
- The types of additional data collected
  - how to create resource capacity to collect more data
- Evolving data needs
- Benefits for evaluation arising from additional data collection
- Lessons learned

Background

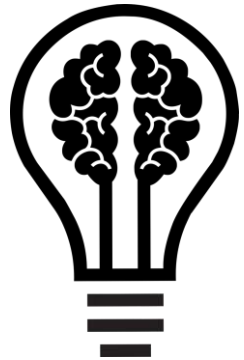
- **Teagasc** – the Agriculture and Food Development Authority
  - research, advisory and training services for agri-food sector and rural communities
- **Data collection responsibility**
  - Irish FADN – Teagasc National Farm Survey (NFS)
- **Data collectors**
  - employees of Teagasc - data collection is their sole occupation
- **Farms**
  - the farmers who participate are chosen at random
- **Farmer participation**
  - is voluntary - farmers are not paid to participate



Teagasc
Agriculture and Food Development Authority

Evolution of farm data collection in Ireland

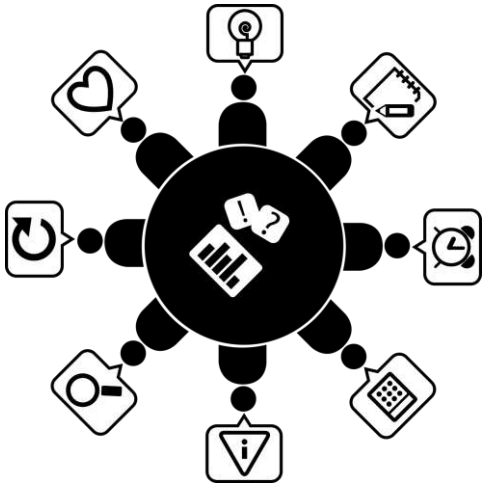
1. **National Level Exercise**: 2011/2012 Review of Research Needs
   - emerging **sustainability agenda** - need for **social** and **environmental data**
2. **FLINT Project** identified VERY similar data needs
   - but provided guidance on Methodology and better International Comparison



- The discussion in later slides reflects learnings on sustainability measurement
  - from both FLINT and our own national level efforts

Benefits

- **For policy makers**, **farmers** and the **wider rural community**
  - improved **understanding** of current **farm practices**
  - improved **understanding** of **farm household circumstances**
- **Additional data** can be **interacted** with **existing data** collections
  - synergies, antagonisms identified, making the trade offs clearer



Developing social sustainability indicators

Demographics/ Succession
Farm Safety
Workload
Isolation/Connectivity (internet)
Stress / Wellbeing

Farmer

Animal

Health & Welfare*
Antibiotic use*
Farm Facilities*

Rural viability
Include Very Small Farms
Biodiversity*

Community

*Work in progress that is yet to be fully achieved

Develop environmental sustainability indicators

2012
- Commenced original data collection process

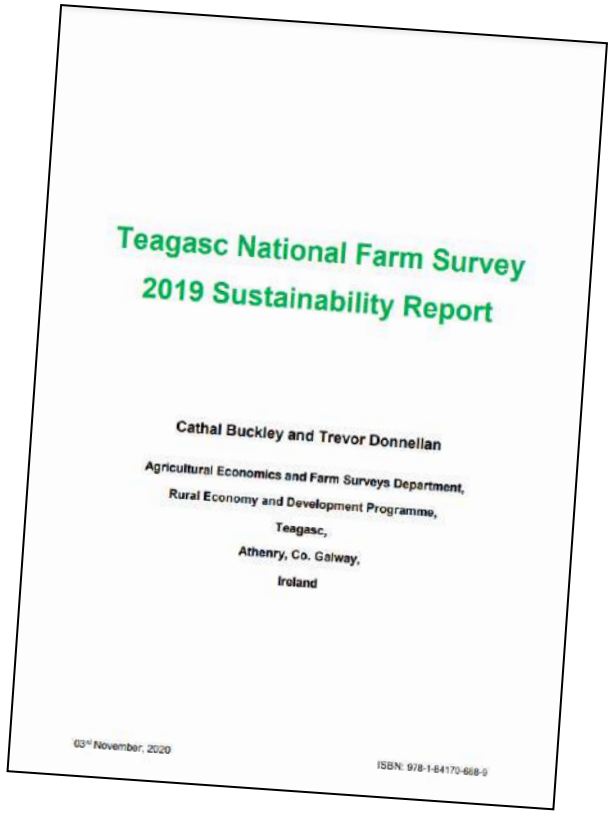
2013
- **December Published first Sustainability Report**
- GHG
- Product based Dairy Data

2016
- **Published 2015 Sustainability Report**
- N Balance /N Use Efficiency
- Added product-based data for Cattle, Sheep and Tillage

2018
- **Published 2017 Sustainability Report**
  - Phosphorus Balance Added

2020
- **Published 2018 Sustainability Report**
- **Published 2019 Sustainability Report**
  - Ammonia Added

FLINT


Teagasc National Farm Survey
2019 Sustainability Report

Cathal Buckley and Trevor Donnellan

Agricultural Economics and Farm Surveys Department,
Rural Economy and Development Programme,
Teagasc,
Athenry, Co. Galway,
Ireland

03rd November, 2020

ISBN: 978-1-84170-668-9

Annual Sustainability Report

https://www.teagasc.ie/rural-economy/rural-economy/national-farm-survey/sustainability-reports

teagasc
Agriculture and Food Development Authority

How can the data be used for evaluation?

Are results being achieved in line with CAP policy objectives?

- **Economic Data**
  - Income and CAP support distributions, CAP support as a share of farm income, income volatility
  - Productivity measures
- **Social Data**
  - Rate of progress/regression concerning generational renewal
  - Non monetary life quality issues (work/life balance, access to services)
  - Social inclusion
- **Environmental Data**
  - GHG indicators (per farm, per ha, per kg product)
  - N and P Balances/Surpluses (per farm, per ha)
  - Ammonia indicators (per farm, per ha)
  - Extent of Use of emission reduction technologies or farm management practices

Lesson 1: Do more with same (or fewer) resources

Problem

- **Everyone wants** to use **data**
- But **few** are prepared to **pay for its collection**
- **Collection of additional data requires efficiencies** in existing data collection practices

Solution

- **Identify and reduce duplication** in existing data collection activities
  - » duplication is a waste of resources and **a frustration for farmers**
- Where possible **use data already provided** for administrative purposes
  - » **e.g. Agriculture Ministry data**
- **Create spare capacity** to ask farmers **new and different questions**
  - » allows collection of **more social and environmental data**

teagasc
Agriculture and Food Development Authority

Lesson 2: Social data can be very sensitive

Problem

- **Social data** is more **personal** that economic or environmental data
- Collection of social data requires understanding of their **sensitive nature**
  - e.g. farm succession plans, non-farm incomes, personal health, social isolation (loneliness)
- Sensitive questions can reveal **"hidden" family concerns**
  - family conflict, mental health issues, non-farm financial problems

Solution

- **Strong relationship** between **farmer** and **data recorder** is required
- **Personality** of the data recorder is important
  - may require **skills that are difficult to learn**
- **Assurance of Confidentiality** is even more important with social data

Lesson 3: Substantial environmental data needs

Problem

- **Diverse range** of environmental data could be collected
- Some environmental indicators are **complex**
  - require **several pieces of data** in their construction

Solution

- **Some quite detailed (hard) work may be required here**
- **As a short cut, proxy measures** can <u>sometimes</u> be useful
  - but can they **capture small incremental changes**?
  - a poor proxy is less likely to accurately identify genuine changes

Lesson 4: Combining datasets maximises added value

Problem

- What is the ideal way to collect econ., social, environ. data
- Can be collected in one of two ways
  1. **multiple surveys** involving **different** population **samples**
  - or
  2. **one consolidated survey** with **same** population **sample**

Solution

- Option 2 (above) is the preferred option
  - allows **integration** of economic, social & environmental **data**
  - richer resource for research purposes
  - can **unlock the answers** to more complex questions

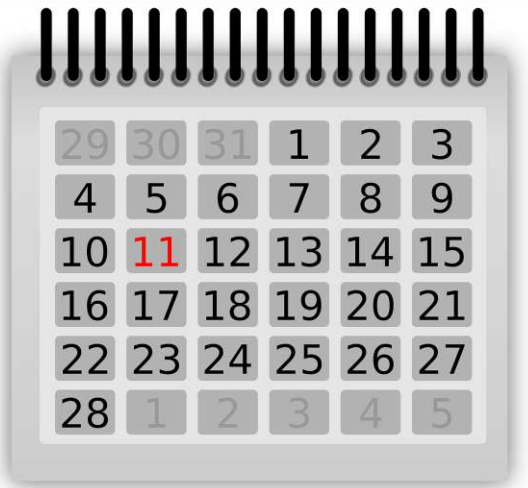
Lesson 5: Some data is required less frequently

Problem

- **Frequency** of data collection **needs consideration**
- **How often should data be collected?**

Solution

- **If data is unlikely to change frequently**
  - **Reduced frequency of collection** may be acceptable
- Some data required **monthly**
  - as the data may change frequently
- Some data **annually**
- Some data may **only** need to be **recorded at longer intervals**
  - once every few years
  - as the data are likely to change slowly



Lesson 6: GDPR must be used to help rather than hinder the process

Problem

- Data sharing can **generate efficiencies** in data collection costs
  - or **increase** the total amount of **data available**
- **EU GDPR** establishes rules for data sharing
  - but these rules can be interpreted as a reason to **NOT** share data

Solution

- GDPR compliance should ensure that **data can be shared**
  - while **protecting** the **interests** of **data provider** (farmer)
  - confidentiality etc.
- Commission can **promote/facilitate data sharing** at MS level
  - as long as purposes are legitimate

Lesson 7: Data collection for monitoring and evaluation can't become an enforcement exercise

Problem

- We **require accurate data**
- We **need co-operation of the farmer** in ensuring accuracy
  - **much of the data** we have discussed is provided **voluntarily by farmers**
- Farmers must have confidence in the data collection process
  - to ensure that they **provide honest and accurate data**

Solution

- Ensure that data is **used to develop/modify policy**
- **NOT** to assess whether an individual farmer has **breached a regulation**

Lesson 8: Collect data sooner rather than later

Problem

- Important to **get the full picture** of **current circumstances**
  - **change** is **already happening -** need data to measure these changes
- Policy (Farm to Fork) will motivate **quite a lot of change**
- It would be unforgivable to **demand progress** from farmers
  - if we fail to collect data to measure and **acknowledge this progress**
- **Generally can't backcast historical data -** Can't turn clock back

Solution

- The sooner you start collecting new data series the better
  - the sooner you will have a **useful time series to assess trends**
  - be capable of appreciating the changes that farmers are making

Concluding comments

- International & National **Policy** now much **more focussed on Sustainability**
  - Economic, Social and Environmental Data required
  - absolute requirement for **accurate data** for monitoring and evaluation purposes
- **Linkage** to **national administrative data sources** is imperative
  - data sharing frees up resources for **collection of data not available from any other source**
  - GDPR must facilitate rather than stymie the process
- Experience of expanded data collection has been positive
  - **appreciation from both Agri-Food Lobby and Policy Makers**
  - **better capable of answering research questions**
  - **funding opportunities and publications**
  - **profile** in our own organisation and among our peers

- Go raibh maith agaibh
- Thank you