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**LEARNING HOW TO INFORM EXTENSION PRACTICES
RELATED TO MANDATORY AGRI-ENVIRONMENTAL POLICY**

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A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy at The Open University

Faculty of Science, Technology, Engineering and Mathematics (STEM)

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Abstract

Despite the existence and application of mandatory agri-environmental policy for many decades, significant environmental sustainability issues remain attributable to the agricultural sector. Participatory types of extension practices seem to have a potential for assisting extension organisations to enhance the supports provided to farmers in relation to meeting the requirements of these policies. To test this idea, this thesis used a learning process approach for exploring the interplay between farmer subjectivities, the European Union's policy of cross compliance and the extension practices of Teagasc, the Agriculture and Food Development Authority of the Republic of Ireland.

Three learning sub-systems were employed in the investigation. The first used the principles of Participatory Action Research for revealing stakeholders' perceptions of Teagasc's cross compliance extension service. This process resulted in the attainment of rich insights about extension practices, however it also revealed that a significant number of farmers were experiencing social difficulties with the application and enforcement of cross compliance. To better understand the implications of these subjectivities, a second sub-system was created to learn about farmers' experiences of the policy. This process surfaced diverse insights about farmers' personal experiences of cross compliance. A final sub-system employed systems thinking and practice for appraising the utility of the learning arising from the previous sub-systems for improving interactions between farmers, extension organisations and cross compliance.

The combined findings suggest a considerable potential for extension organisations to use participatory practices for developing rich understandings of farmers' preferences for mandatory agri-environmental policy and its related extension practices. A limitation in realising participant preferences is that extension organisations have little influence over the application and enforcement of mandatory agri-environmental policy. Overcoming this participatory barrier will require continued collective learning targeted at understanding how stakeholders can work together to develop agri-environmental policies that are socially, financially and environmentally sustainable.

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Statement of original authorship

I certify that this is my own work, completed while registered as a candidate for the Degree of Doctor of Philosophy at the Faculty of Science, Technology, Engineering and Mathematics (STEM), The Open University. I have not obtained a degree elsewhere based on the research presented in this submitted work.

Signed: 

Biographical sketch

Surfacing the researcher's worldviews and personal history is considered to provide a contextual grounding that will allow the reader to understand how the researcher's personal traits may have affected the definition of research problems and any subsequent proposal of solutions (Russell and Ison, 2007). To provide this foundation, the PhD researcher details below, a short account of her personal history and motivations for undertaking and pursuing the research process that is reported in this thesis.

"I was born in 1981 and raised in the countryside of East Galway in the Republic of Ireland. My paternal grandmother, Mrs Mary Seale, was a considerable influence on my life. She was both a farmer and a naturalist. My childhood is remembered as being full of happy days, spent out and about with my grandmother, roaming around the farm, the bog, and the woods, learning together about the natural phenomena around us. I firmly believe that these experiences served as a catalyst for my lifelong interest in nature and agriculture.

My particular interest in the human aspects of the farmed landscape arose whilst undertaking conservation work as part of a 'gap year' in Bathurst, New South Wales, Australia following the completion of my BA in History, Sociology and Political Science from the National University of Ireland in Galway. During my time in Australia and particularly during my interactions with other volunteers, I became increasingly conscious that many people held negative perceptions of the relationship between farming and the natural environment. This realisation was a 'transformative experience' (Hards, 2012), in that prior to this revealing, I admit that I was somewhat naive that such animosity might exist. Indeed if honest, I acknowledge that I found some of these narratives misguided, as I had never experienced outright farmer disrespect for the natural environment.

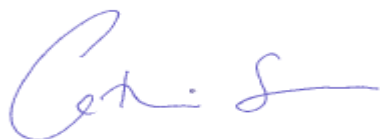
Curious and somewhat perturbed, I felt that I should seek to better understand the situation. It was for this specific purpose that after returning from Australia, I enrolled in

the Vocational Certificate of Agriculture at the Franciscan Brothers Agricultural College in Mountbellew, Co. Galway. My motivation at this time is conveniently recorded in a student presentation (Seale, 2003);

'farmers get far too much bad press about destroying the environment, so I thought this course would help me understand a little more about why environmentalists and farmers have such a bad relationship' (p.21).

Thirteen years on, life experience has provided me with an improved appreciation of the complexity involved. This appreciation relates in part, to the work undertaken for this thesis and also to my time in agricultural college, but it also relates to my professional experiences in the public realm as a clerical officer and a national park guide. Moreover, in 2008, I furthered my educational attainment with a MSc. (Agr.) in Environmental Resource Management from University College Dublin.

In many ways, I believe that it was my eventual acceptance of the complexity of the relationships involved that led to my interest in undertaking this doctoral research, which has sought to further (in whatever small way) our knowledge of the inter-relations between farming, people and nature. However, as I come to the conclusion of this thesis, I am aware, now more than ever that I will need to continue to continue with my learning".

A handwritten signature in blue ink, appearing to be 'C. S.', is located below the main text block.

Abbreviations

| | |
|----------|--|
| ACOT | An Chomhairle Oiliúna Taimhaíochta |
| AKIS | Agricultural Knowledge and Innovation System |
| Bord Bia | The Irish Food Development Board |
| BNIM | Biographic-Narrative Interpretive Method |
| BPS | Basic Payment Scheme |
| CAP | Common Agricultural Policy |
| CCITP | Cross Compliance Information and Training Project |
| CSH | Critical Systems Heuristics |
| CSO | Central Statistics Office |
| DAFM | Dept. of Agriculture, Food and the Marine (Rep. of Ireland) |
| DEFRA | Dept. for Environment Food and Rural Affairs (UK) |
| EEC | European Economic Community |
| EIP | European Innovation Partnership |
| EPA | Environmental Protection Agency |
| EU | European Union |
| FAO | Food and Agricultural Organisation |
| FAS | Farm Advisory System |
| IFA | Irish Farmers Association |
| KT | Knowledge Transfer |
| LINSA | Learning and Innovation Networks for Sustainable Agriculture |
| NFS | National Farm Survey |
| OECD | Organisation for Economic Co-operation and Development |
| OU | The Open University |
| PAR | Participatory Action Research |
| PMI | Project Management Institute |
| RELU | Rural Economy and Land Use Programme |
| REPS | Rural Environmental Protection Scheme |
| RERC | Rural Economy Research Centre |
| SFP | Single Farm Payment |
| SQUIN | Single question aimed at inducing narrative |
| SSM | Soft Systems Methodology |
| Teagasc | Agriculture and Food Development Authority of Ireland |

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The farming community is traditionally noted for its hospitality. After completing this research, I can confirm that this custom remains. In particular, I wish to thank all those who supported this study especially the farmers, farm advisors and cross compliance stakeholders, who so willingly shared their time and knowledge with me. I humbly acknowledge that without their contributions that this research would have remained but a proposal.

I wish to thank sincerely my supervisors: Professor Andy Lane, Dr Chris High, Dr Áine Macken-Walsh, Dr Martin Reynolds and Dr Kevin Heanue for their encouragement, wisdom, critical insights and considerable patience in bringing this study to fruition. I also wish to thank the staff of the Teagasc KT Directorate especially Mr Tim Hyde and Mr Mark Gibson, for being a pleasure to work with and overall providers of salient guidance. To my colleagues in the Teagasc Rural Economy Research Centre (Athenry) and The Open University (Milton Keynes), I would like to thank them for their support, friendship and kindness, in what were oft challenging times. I also wish to express my gratitude to Teagasc and The Open University for providing me with an opportunity to pursue this research under the Walsh Fellowship Programme.

To my parents, Tom and Brigid, my sisters Eliz, June and Agnes, my brother Richard, brother-in-laws, nieces and nephews, and to my wider extended family, I wish to thank them for their financial and emotional support during the course of the last five years. Special thanks are also due to my friends for providing laughs and motivation throughout the PhD process. I hope someday, I can return the favour to these very special people. Finally, I wish to thank, the many stimulating individuals who provide me with personal and intellectual guidance for the betterment of this study. I am afraid to 'name' names in case I forget an important cog, but please do not think I forgot you, as you know how important you were to this research and how grateful I am to you for your support.

Thank you!

Chapter 1

Introduction

1.1 The role of extension organisations in agri-environmental policy

Mandatory agri-environmental policy seeks through governance processes to embed more environmentally sustainable types of production in the agriculture sector. This compulsory implementation is arguably necessary to address the manifold environmental challenges facing the sector. Some of the known issues include: feeding an increasing world population, mitigating and adapting to climate change; addressing water quality and availability issues; and responding to the empirical links between intensive farming activities and biodiversity decline (Meffe, 1998; Krebs *et al.*, 1999; Green *et al.*, 2005; Setten, 2005; EC, 2008; Power, 2010; Gomiero *et al.*, 2011; Lee, 2011; OECD, 2011; EC, 2012; Gilburn *et al.*, 2015). However, whilst mandatory types of agri-environmental policy have been in operation for a lengthy period of time, the many outstanding environmental sustainability issues affecting the sector indicate significant barriers with the realisation of a sectoral application of the requirements of these policies (Tilman *et al.*, 2002; DEFRA, 2009; RELU, 2012; Wynne-Jones, 2013). Moreover, it is widely argued that the related use of top-down approaches for extending the objectives and requirements of agri-environmental policy is not having the desired effect of translating more sustainable types of agricultural production into a reality (Ison, 1990; Pretty, 1995; Vanclay, 1997a; Van den Ban, 1999; Röling and Wagemakers, 2000; Vanclay, 2004; Allahyari, 2009; Koutsouris, 2012; EIP-AGRI-Focus-Group, 2015).

Extension organisations seem to have an ability to improve this situation (Juntti and Potter, 2002; Lobley *et al.*, 2010; RELU, 2012). This task is admittedly not straight forward as extension organisations face the 'top-down' versus the 'bottom up' dilemmas of the intermediary (Koutsouris, 2012). Similarly, at the individual level, farm advisors must negotiate acceptable paths between organisational imperatives, professional allegiances and the need to gain and maintain the trust of their farming clients (Juntti and Potter, 2002; Cerf *et al.*, 2011). Moreover, Vanclay (1997b) argues that a *'failure to acknowledge that farming is a social and cultural activity is responsible for the limited*

success of extension, particularly in promoting sustainable agricultural practices' (p.9). In a similar vein, it is reported that farmers have not been provided with meaningful opportunities to share their experiences of engaging with the various 'sustainable agriculture' practices that are advocated as having a potential for resolving environmental sustainability issues in the sector (Vanclay, 1997b; Norman *et al.*, 2000).

There are some indications that this communication impasse may be easing with a growing emphasis on the use of participatory practices within many extension organisations (Hagmann *et al.*, 1998b; Murray, 2000; Coldevin, 2003; Macken-Walsh and Roche, 2012). This increased use of participatory practices would seem to have a potential for providing structures which will enable the inclusion of farmers' perceptions and preferences in the determination of pragmatic enhancements to extension practices related to mandatory agri-environmental policy. Moreover, the facilitation of participation can lead to more equal knowledge sharing opportunities between stakeholders (Coldevin, 2003). Whilst, it may also contribute to improved organisational learning opportunities within extension organisations (Pretty, 1995).

Conversely, there are reports of a tension with the use of participatory forms of extension for improving the implementation and application of agri-environmental policy (Bruges and Smith, 2008). This friction relates to observations which highlight that the original intentions of participatory approaches were for facilitating communities to work towards their version of change and that they were not designed to ease policy application or to serve as a methodology for academic research (Pain and Francis, 2003; Bruges and Smith, 2008).

In formulating this doctoral research, the PhD researcher extensively deliberated on this tension. She however concluded that participatory approaches regardless of their original intentions offer a significant potential for assisting extension organisations with learning how to enhance the services provided to farmers in relation to the requirements of

mandatory agri-environmental policies. Furthermore, as mandatory policies are legally binding, it is logical that extension organisations will seek to improve the supports provided to farmers in order to avoid them suffering from the economic and social repercussions, which can arise from the formal detection of non-compliances with the requirements of mandatory policy.

To test this idea, the PhD researcher pursued an empirical investigation into the interplay between farmer subjectivities, the European Union's policy of cross compliance and the extension practices of Teagasc, the Agriculture and Food Development Authority of the Republic of Ireland.¹ She was aided in her research with the support of two specialist advisors from Teagasc's Soils and Environment Programme, who were serendipitously interested in learning how Teagasc as an organisation could enhance the supports provided to farmers in relation to cross compliance.²

The following chapters 2 and 3 will provide detailed descriptions of the policy of cross compliance and its related extension practices. Firstly, to provide the reader with an awareness of the research context, there is a need to detail an account of the Irish agricultural sector. The following sub-sections will therefore introduce the sector. This account includes an elaboration of the sector's environmental performance and the extension supports that are available to farmers.

¹ Cross compliance is a mandatory type of agri-environmental policy enacted to improve the sustainability of EU agriculture. It involves the establishment of a formal link between regulatory compliance and financial remuneration under the Common Agriculture Policy's Basic Payment Scheme.

² Specialist advisors concentrate on the provision of extension services in a particular area or sector. Specialist advisors assist with the development and implementation of Teagasc policy and in-service advisor training programmes. In addition, they support advisory and education staff in the transfer of technical and research information to clients of Teagasc and the general public. Teagasc's specialist advisors do not have their own specific farm clients.

1.2 Research setting

1.2.1 Sector outline

The agricultural sector has a prominent position in the economy, psyche and landscape of the Republic of Ireland. Moreover, its role in promoting economic recovery following the boom and bust of the Celtic Tiger years has seen a renewal of interest in the sector (O'Donoghue and Hennessy, 2015).³ Acknowledgement of the sector's significance is visible in a recent agri-food strategy from the Department of Agriculture, Food and the Marine (DAFM) (2015b) which states:

'Agri-food is Ireland's oldest and largest indigenous industry, deeply embedded in the landscape, history and personality of the country. It encompasses everything from primary agriculture to food and beverage production, from fisheries and fish processing to forestry and forestry outputs. Its strategic importance to the Irish economy, its roots in local communities and its strengthening global reach (the industry provides quality, safe and nutritious food to consumers in at least 175 countries around the world) make it a sector unlike any other' (p.1).

The sector, according to the most recent Census of Irish Agriculture, has approximately 139,860 farms, with an average size of 32.7 hectares (CSO, 2012). The majority of available farmland is used for pasture, hay, silage, and rough grazing. Some smaller parcels are also allocated to tillage, forestry and other crop types. Dry-stock farms were the most common type of enterprise recorded in the census, with specialist dairy farms, the second largest. Other farm types recorded include mixed animal enterprises, tillage systems, mixed field crops, poultry, and pig systems (CSO, 2012). Almost all Irish farms are classifiable as family farms. This ratio is reported as one of the highest portions of family farms in Europe (Prager and Thomson, 2014). Farm ownership in the Republic of

³ "Celtic Tiger" is a term used to refer to the economy of the Republic of Ireland from the mid-1990s to the mid-2000s. This period involved a rapid real economic growth fuelled by foreign direct investment, combined with a subsequent property bubble which left the real economy uncompetitive.

Ireland is however predominately male, with only 12.4% of farms recorded to be in female ownership, even though it is known that women contribute a quarter of all farm labour (CSO, 2012). Indeed, Byrne *et al.* (2013) contend that many Irish farming women occupy subjugated roles in Irish agriculture, in that while they provide significant labour in the form of administration, welfare provision, farm diversification and other work, few women are offered farm ownership opportunities.

The average age of an Irish farm holder is 55 years and only 6% of farmers are reported to be under the age of 35 (CSO, 2012). Educational attainment is increasing in the sector, with the numbers of farmers holding formal agricultural qualifications rising from 24% in 2000 to 44% in 2011 (Heanue and O'Donoghue, 2014). Greater than half of all Irish farmers report to be full-time farmers. The larger the farm size, the more likely it is that a farmer will report that they are occupied in the profession of full-time farming. In particular, specialist dairy farmers are those most likely to report that farming is their full-time occupation (CSO, 2012).

The average family farm income (excluding off-farm income) in 2013 was estimated at €47,646 for a full-time farmer and €9,953 for a part-time farmer (Teagasc, 2014). Additionally, approximately 75% of farmers were recorded to have an off-farm income in the form of employment, pension or social assistance (Teagasc, 2014). EU subsidies are an important part of farm incomes although dependence on these subsidies can differ between enterprises. For example, the Basic Payment Scheme (BPS) is considered an integral component of the dry-stock farmer's income, whilst dairy farmers (who typically have higher incomes) are assumed to be less reliant on this direct payment (Hanrahan *et al.*, 2014). Using calculations from the 2013 National Farm Survey, Figure 1 details farm income and its components of direct payments (subsidy) and market income (sales) across a range of enterprises (Hanrahan *et al.*, 2014). This figure illustrates the diversity in income opportunities and constraints between the different enterprise types in the Republic of Ireland.

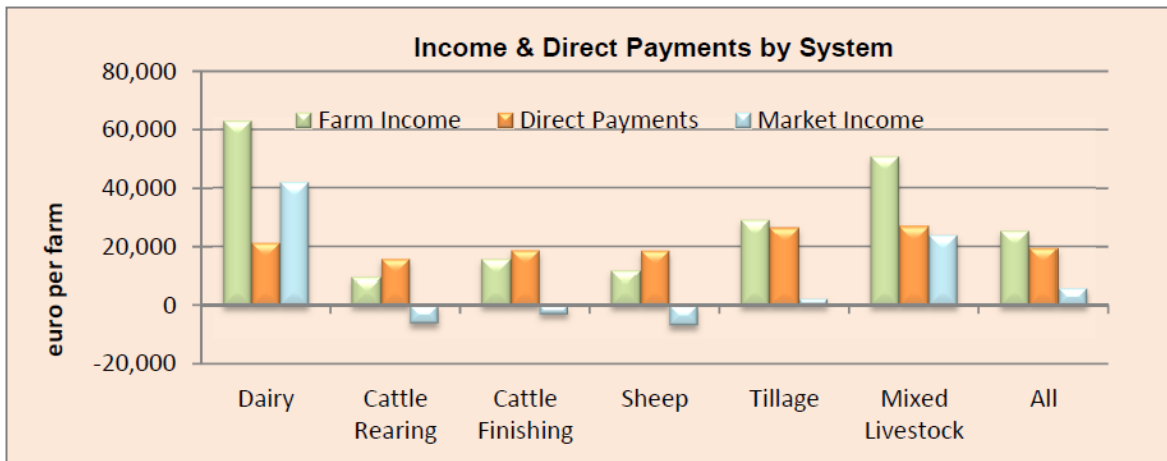


Figure 1: Farm income, direct payments and market income by farm enterprise in 2013

Equally, from a social perspective, it should be acknowledged that while farming as the DAFM (2015b) notes is 'deeply embedded in the landscape, history and personality of the country', as a profession, farming can be experienced as a stressful occupation (Ní Laoire, 2012; Leonard, 2015). The following account from Mr Joe Leonard (2015) offers some insight:

'To farm, to be a custodian of a small piece land for a few short years and to have a connection with 'mother nature' is a pleasure and a privilege that fewer and fewer people have. As a dairy farmer, I am fully aware of how lucky I am to have this opportunity. But as a farmer I am also fully aware of how hard a farming life can be at times. Having spent years growing and developing my business I am acutely aware of the stress that can be placed not only on myself but also on my family and work colleagues' (p.6).

Common stressors cited by Leonard (2015) include fatigue, lack of personal time, inclement weather and associated management problems, administrative obligations, and managing regulatory requirements. Moreover, Macken-Walsh *et al.* (2012) report that many farmers experience their profession as socially isolating, particularly those individuals who have limited opportunities to make human contact in a working day. Furthermore, farm fatalities are at their highest recorded levels, despite the introduction

and implementation of several farm safety initiatives (Casey *et al.*, 2014). Reflecting on these factors, it is apparent that while the agricultural sector is an important part of Irish culture, the particular economic and the social situation of the farmer and their family can greatly affect their experience as a farmer.

1.2.2 Environmental sustainability

Considerable claims about the Republic of Ireland as a 'green' sustainable food producer are presented [cf. Food Harvest 2020 (DAFM, 2010) and Food Wise 2025 (DAFM, 2015b)]. Indeed, Woodworth (2015) asserts the term 'sustainable' is so often used in connection with Irish agricultural strategies that; *'it sometimes seems drained of any real meaning'*. In an effort to avoid such an occurrence in this thesis, a thorough examination of the literature pertaining to the environmental sustainability of the Irish agricultural sector was conducted. This examination reveals that there is potential for both positive and negative environmental impacts to arise from the practice of farming. At the farm level, for example, there are reports that dry-stock enterprises due to their typically small scale and low intensity management practices are less likely to cause environmental damage (Bogue, 2013b). While, in contrast, intensively managed dairy farms are suggested as more likely on average to have the potential for causing pollution to the natural environment (Dillon *et al.*, 2010).

The following paragraph describes some of the negative impacts that have been linked with agricultural activity on the island of Ireland:

- Diffuse and source pollution to Irish rivers and water bodies (Daly and Deakin, 2015)
- An Taisce (2015) contends that Ireland's livestock-dominated agriculture sector, combined with its road-focused transport system is *'setting Ireland's course for climate mitigation failure on a grand scale'*.⁴ These concerns appear related to observations,

⁴ An Taisce is a national charity that works to preserve and protect Ireland's natural and built heritage.

that a third of all greenhouse gas emissions in the Republic of Ireland are generated in the agriculture sector (EPA, 2016)

- Agricultural intensification is considered to have caused significant declines in the biodiversity of native flora and fauna (O'Neill *et al.*, 2013; Power *et al.*, 2013). In particular, significant population declines are noted in previously common farmland birds (Copland, 2015)
- Inappropriate livestock management practices are suggested to have negative impacts on the breeding success of a rare native amphibian, the Natterjack toad in Co. Kerry (Sweeney *et al.*, 2013), and more generally on the species richness of macroinvertebrate in rivers (Conroy *et al.*, 2016)⁵

At the same time, it is recorded that certain farming practices can have positive impacts on species diversity and ecosystem services. This observation appears particularly relevant in studies which investigated semi-natural habitats like the Shannon Callows (Maher *et al.*, 2015), the Iveragh Uplands (O'Rourke *et al.*, 2012) and the Burren (Dunford, 2002). Significant positive externalities can also arise from agri-environmental schemes. The first major voluntary scheme of this type to emerge in the Republic of Ireland was the Rural Environmental Protection Scheme (REPS). This scheme was characterized by universal availability, a voluntary nature, comprehensiveness, payment limitation, individual tailoring and extension in the form of training (Emerson and Gillmor, 1999). Although, initial farmer engagement with REPS was low, uptake slowly improved, and by 1999, approximately 43,000 farmers were participating in the scheme (Emerson and Gillmor, 1999). Conversely, the effectiveness of REPS has been criticised by Crowley (2003) who suggests that the scheme did little more than categorize farmers into either 'market orientated food producers' or 'environmental conservation managers'. From an objective scientific perspective, it is difficult to contest this claim of Crowley's as little attention was given at a national level to measuring or assessing the effectiveness of the

⁵ Natterjack Toad is known scientifically as *Bufo calamita*

scheme in meeting its environmental objectives (Finn and Ó hUallacháin, 2012; Ó hUallacháin *et al.*, 2015). Nevertheless, Bogue (2013b) contends that an obvious benefit to arise from REPS, was the education of farmers about the potential for environmental impacts from their farm practices. He further contends that it is rather unlikely that many of the environmentally orientated actions undertaken by farmers during the period of REPS would have been realised were it not for the financial incentives provided by the scheme. Similarly, Van Rensburg *et al.* (2009) acknowledge that REPS does appear to have had an effect in changing farmers' practices in a more environmentally benign direction. In 2010, the REPS was replaced by the Agri-Environment Options Scheme. This scheme has again more recently been replaced by the Green, Low Carbon, Agri-Environment Scheme (GLAS) under the 2014 – 2020 National Rural Development Programme.

A further significant and arguably positive agri-environmental related policy to emerge in the Irish Agricultural Sector are the Bord Bia's Quality Assurance Schemes. These voluntary certification schemes are organised and managed by An Bord Bia (The Food Development Board). The two key schemes presently in operation are the *Sustainable Dairy Assurance Scheme* and the *Beef and Lamb Quality Assurance Scheme*. Farmer participation in the schemes requires that they volunteer their farm to undergo an audit against certain prescribed requirements that are determined by An Bord Bia. Many farmers have reported similarities between the processes and procedures audited in Bord Bia Quality Assurance Schemes and those that are checked in cross compliance (Sherlock, 2015). Finally, a sector led policy initiative with the potential for positive environmental impacts is the '*Smart Farming*' programme, coordinated by the Irish Farmers Association (IFA) and a range of government agencies including the Environmental Protection Agency

(EPA).⁶ The 'Smart Farming' programme is designed to support farmers to reduce their expenses, whilst also maximising their output through better resource management.

The growing recognition that many agricultural practices can have positive impacts on the natural environment has led to calls for improved collaboration between the different agri-environmental stakeholders. Mr Lorcan O'Toole (2014) of The Golden Eagle Trust, for example advised his organisation that *'the Irish wildlife movement may need to reassure rural communities that we have an inclusive outlook as regards farming and landscape management'* (p.24). Similarly, Daly and Ó Cinnéide (2014) from the EPA call for integrated relations that encompass *'linkages, co-operation and networks'* between stakeholders *'rather than 'silos''* (p.9). While Ó hUallacháin *et al.* (2015) advocate that the adoption of integrated sustainability approaches in the agricultural sector is necessary not only to maintain the longevity of food production systems but also to preserve an image of Ireland as a 'green' food-producer in the long term.

1.2.3 Agricultural extension

The first extension effort on the Island of Ireland is traceable to an outbreak of potato blight in the mid-1840s.⁷ The occurrence of this disease resulted in severe hardship for poorer sections of Irish society, particularly to those people who were dependent on the potato crop for their sustenance. The Royal Agricultural Improvement Society of Ireland, in an effort to alleviate the suffering being experienced, appointed a number of travelling instructors to train farmers in the potential for alternative cultivation practices (Jones and Garforth, 1997).

Many years later, in 1919, a Department of Agriculture and Technical Instruction was formally established on the Island. Around the same time, local authorities began to collect levies from agricultural land to finance county committees of agriculture. These

⁶ <http://smartfarming.ie/> Last accessed: 20th March, 2016 21:57pm

⁷ The scientific name for potato blight is *Phytophthora infestans*

committees were tasked with both providing technical agricultural instruction and stimulating industries in the rural countryside. While these extension and education efforts were a useful addition to the agricultural sector, as they matured, there were increasing concerns about the need for a state supported agency, to coordinate the consistency and quality of extension activity towards meeting policy objectives at the national level (Keenan, 1965; Prager and Thomson, 2014). This goal was eventually realised in 1980, with the development of semi-state organisation, An Chomhairle Oiliúna Taimhaíochta (ACOT) as the national advisory and training body for farmers. ACOT assumed the extension functions and personnel of both the Department of Agriculture and the county committees of agriculture (Callanan and Keogan, 2003). A fee was subsequently applied to the provision of standard ACOT advisory services in 1987. The introduction of this fee for extension services reflects wider international changes (Garforth *et al.*, 2003). However, it is surmised that charging farmers for advisory services, led to a concentration of extension efforts towards those farmers who could pay the fee, namely more commercially orientated farmers (Phelan, 1995; Prager and Thomson, 2014). Moreover, while, the shift towards a fee paying service may have improved opportunities for the supply of extension advice from private advisors, it is at the same time noted that as the ACOT service remaining publically subsidised, the national organisation remained at a competitive advantage to private extension services (Phelan, 1995). In 1988, the present organisation of Teagasc replaced ACOT as the Agriculture Food and Development Authority. This new organisation assumed overall responsibility for the provision of public research, training and advisory services to the agriculture sector of the Republic of Ireland. The establishment and trajectory of Teagasc in meeting these objective is well documented in Miley (2008). While, in the following sub-section 1.2.4 the role of Teagasc in the wider Irish Agricultural Knowledge and Innovation System of the Republic of Ireland and a summary of its history and present activities in this role is provided.

1.2.4 Teagasc and the Irish Agriculture Knowledge and Innovation System

An Agriculture Knowledge and Innovation System (AKIS) is a conceptual construct commonly used to describe the different individuals, actors, organisations and institutions who may either directly or indirectly provide information and knowledge to the agricultural sector (Röling and Engel, 1991; Röling, 1997). In the Republic of Ireland, Teagasc due to its present remit as the Agricultural and Food Development Authority forms a substantial component of the Irish AKIS. The primary function of the organisation as laid out by present Director, Professor Gerry Boyle (2012) is to support science-based innovation that is underpinned by profitability, sustainability and competitiveness. The organisation operates this function on an annual budget of €160 million. Three quarters of this funding is derived from the Irish exchequer and EU support, the remainder is generated as earned income (Prager and Thomson, 2014).

The organisation has 7 research centres, 51 advisory offices, 90 farmer-owned demonstration farms, 5 agricultural colleges, and 40,000 clients (Prager and Thomson, 2014). An overview of the structure of Teagasc from Boyle (2014) is provided in Figure 2.

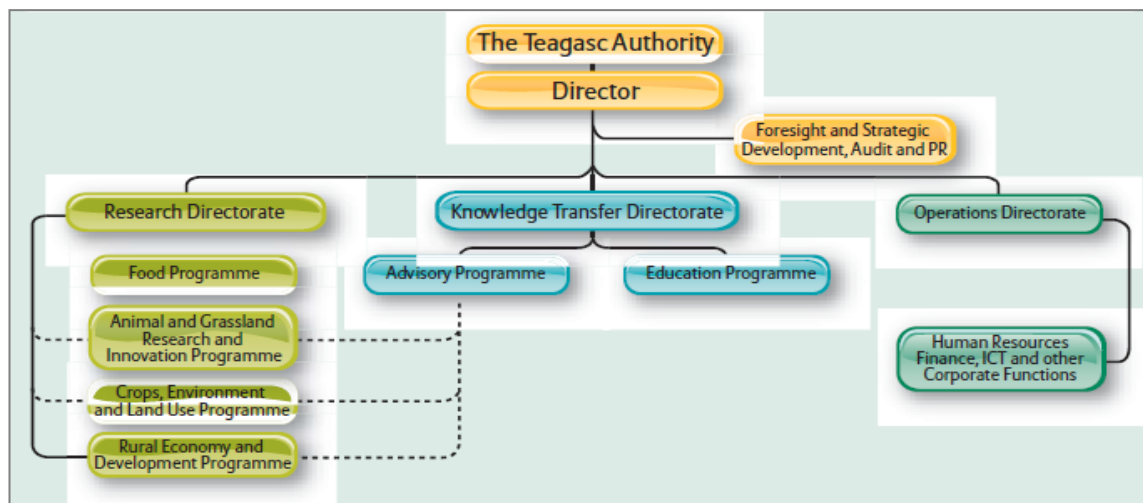


Figure 2: The structure of Teagasc

In addition to Teagasc, the Irish AKIS is composed of a range of stakeholders including the private agricultural colleges, private agricultural consultants, veterinarians, private research entities, universities, institutes of technology, government departments, public

agencies, farm-based organisations and NGOs (Prager and Thomson, 2014). A visualisation of an Irish AKIS envisaged by Prager and Thomson (2014) is provided in Figure 3.

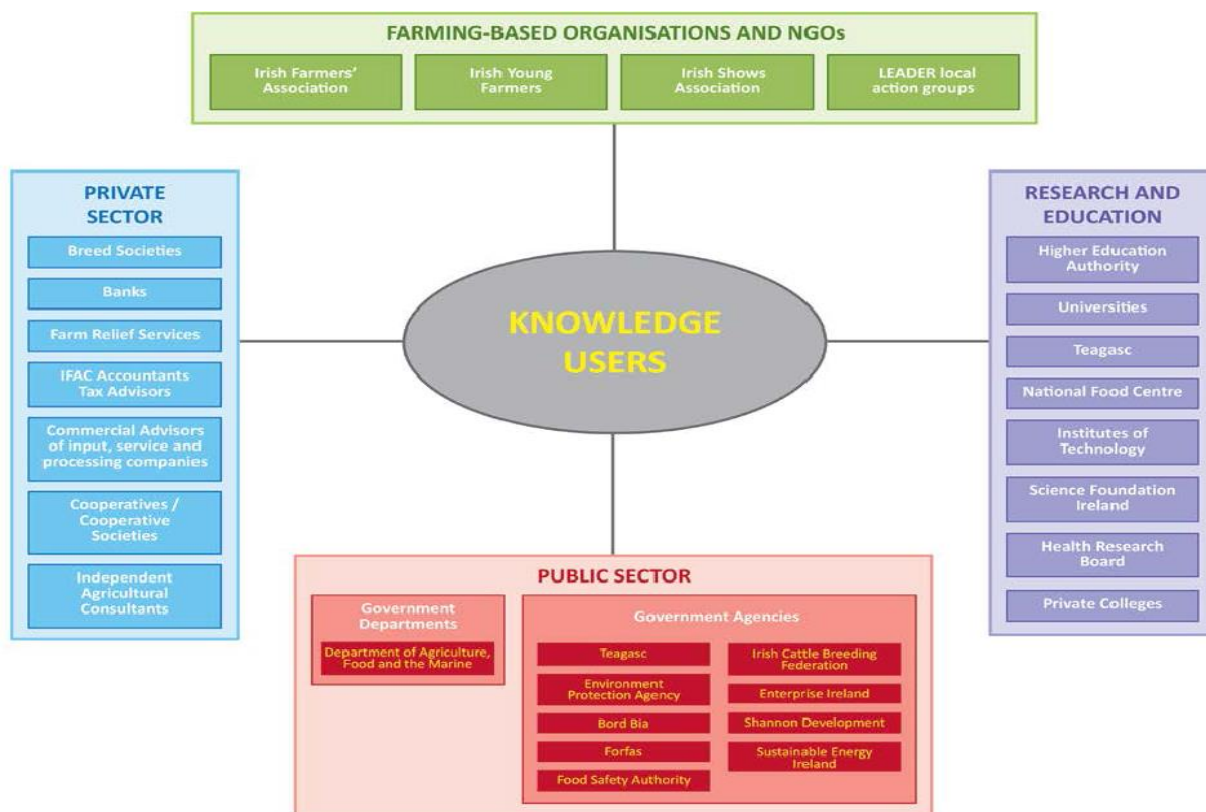


Figure 3: AKIS stakeholders in the Republic of Ireland

According, to Professor Gerry Boyle (2012), both strong and weak links are evident between Teagasc and other members of the Irish AKIS. He highlights that there are strong relationships between Teagasc farm advisors and farming stakeholders, and also between Teagasc research and other research organisations. However, he notes that there are weak relationships between external research stakeholders and Teagasc advisors. Boyle also reports that there would appear to be significant opportunities to improve linkages between Teagasc and other key AKIS stakeholders. Kelly *et al.* (2013) further contend that Teagasc could substantially improve farmer uptake of the findings of applied research with the assistance and support of industry stakeholders, private consultants and commercial advisors. In the next Sub-section 1.2.5, there is a description of the specific function of the Knowledge Transfer Directorate of Teagasc. This account is

followed later in Chapter 2, Sub-section 2.3.3, with an examination of Teagasc's provision of cross compliance extension.

1.2.5 Teagasc's Knowledge Transfer Directorate

Teagasc is the largest extension provider in the Republic of Ireland. The organisation has approximately 250 farm advisors and 51 specialists advisors operating nationwide (Prager and Thomson, 2014). In line, with contemporary extension trends, the organisation has according to Boyle (2012), evolved from having an exclusive emphasis on the imparting of knowledge, to a focus on implementation support. In particular, Boyle notes improvements to the formal networks between farmer stakeholders and the extension, research, and networks nodes of Teagasc, arising from the establishment of Stakeholder Commodity Consultation Groups within the organisation.

Other indicators that there has been a shift in the focus of knowledge transfer within Teagasc include: the progression of the Teagasc Agricultural Catchments Programme as '*a partnership between farmers and Teagasc*' (Shortle and Jordan, 2013, p.6), recent collaboration between farmers and advisors to develop a nutrient management planning tool (Murphy, 2015), and the preparation of a template for enabling participatory extension practices in the facilitation of farm partnerships (Macken-Walsh and Roche, 2012). Furthermore, farm discussion groups are increasing in use as an extension practice within Teagasc (Hennessy and Heanue, 2012; Bogue, 2013a).

There is also an emerging recognition from outside the organisation, that Teagasc has sought to move away from using traditional top-down paternalistic approaches to modes that value stakeholder participation and contribution (McDonagh *et al.*, 2013). It is however reported, that progressing this more inclusive trajectory has not been without challenges, with some claims that certain extension personnel have struggled with adjustments to advisory programmes and approaches (Bogue and Phelan, 2005; Mahon *et al.*, 2010; McDonagh *et al.*, 2013).

There however appears to a reasonable level of satisfaction amongst farmers regarding the extension performance of Teagasc (O'Dwyer and Reidy, 2007; Walsh, 2009). Equally, a close relationship between Teagasc farm advisors and their clients is reported (Macken-Walsh *et al.*, 2012). Conversely, O'Dwyer and Reidy (2007) report that satisfaction amongst larger dairy farmers, particularly those operating in Munster counties, is lower than average.

It is important to highlight, that Teagasc has experienced severe resource challenges particularly in relation to the hiring of extension staff due to a public-employment recruitment embargo (Boyle, 2012). Kelly *et al.* (2013) report that falling advisor numbers as a result of these staff shortages has forced a prioritisation of advisors' workload within the organisation. Furthermore, while Teagasc has sought to manage its advisory workload, the organisation has apparently reached a situation where *'any spare capacity has been exhausted'* (Teagasc (2015), p.30).

In summary, Teagasc is an important stakeholder in the Irish AKIS. The organisation is however currently in an extension transition, with a shift away from having an exclusive emphasis on the imparting of knowledge, to a greater focus on implementation support. In many ways, the realisation of this PhD thesis serves to illustrate that Teagasc is willing to learn how to enhance the extension service and practices that it currently provides. The following Sub-section 1.2.6 provides a short account of the extension practices commonly used within the organisation.

1.2.6 Extension practices

Teagasc utilise a range of extension practices when engaging with farmers and farming clients. These include tailored farm advice, discussion groups, media publications, open days, farm walks and training courses.

Tailored farm advice:

The provision of one-to-one tailored advice is an important source of information for farming clients. Ingram and Morris (2007) note that the heterogeneity of farm holdings will likely maintain the demand for specific farm consultations between farmers and advisors. Additionally, Morrison (2012) reports that in his experience as a farmer, one-to-one advice is beneficial as the extension focus is on the individual farm and he outlines that having one-to-one advice allows for a thorough tailored investigation of the farm business. In recent times, some farmers are reported to perceive that the rise of discussion groups has contributed to a decline in the number of one-to-one on farm visits conducted by advisors (Bogue, 2013a). However, at the same time, it is noted that hosting a farmer discussion group, will provide the farmer with an opportunity to have a one-to-one consultation with the facilitating advisor (Bogue, 2013a).

Discussion groups:

Discussion groups are a form of peer-to-peer learning which are increasingly used within Teagasc (Prager and Thomson, 2014). Bogue (2013a) reports that the use of discussion groups has altered the delivery of advice from the traditional advisor provision role to a shared approach between farmers and advisors. Discussion groups also serve as an example of the 'Community of Practice' concept determined by Wenger (1998), in that they involve a specific collection of people with similar concerns and passions, interacting on a regular basis for the purpose of knowledge

exchange. A particular benefit of discussion groups, according to Macken-Walsh *et al.* (2012), is that they act as a type of social support for the farmers participating in the group. Moreover, it is claimed that a farmer's participation in a discussion group can increase the likelihood that the farmer will improve their technology and adoption of advocated practices (Hennessy and Heanue, 2012). Finally discussion groups are noted to have a particular utility for emphasising extension messages related to health and safety (McNamara *et al.*, 2015).

Media publications:

Teagasc produces a number of farming publications including *T-Research* and *Today's Farm*. The former, *T-Research* is published quarterly and provides up to date information on recent Teagasc research endeavours, while *Today's Farm* is specially produced for farming clients. The magazine is circulated six times a year to approximately 40,000 farmers. The publication has been reported as a 'useful journal' for farmers (Crowley, 2003). Teagasc also publishes specific sectoral newsletters on a monthly basis. All of the above listed publications are free to download at www.teagasc.ie

Open days, farms walks and training courses:

Teagasc organises regular open days, farm walks and training courses for farmers. Morrison (2012) reports that while public events are a good way to publicise new advisory messages, they are often a victim of their own success. In that, according to Morrison, the large crowds in attendance at Teagasc public events can affect the time available for a question and answer session. Moreover, it is reported that while farmers often appear to respond positively to the messages given at one-off knowledge transfer events, there is usually a need for subsequent targeted follow up to increase the likelihood that the message will be applied (Ryan *et al.*, 2012).

In the following section, the research aim, research question, and research approach, used to pursue an empirical exploration of the extension practices related to the requirements of the mandatory policy of cross compliance are given.

1.3 Aim and research question

The aim of this research is to inform extension practices related to mandatory agri-environmental policy. The research makes use of a metaphor of a conversation to describe a way of approaching both academic research and extension practice. The intention of using this metaphor is to represent a way of purposefully engaging with involved and affected stakeholders, in order to learn where potential enhancements to extension practices related to mandatory agri-environmental policies, such as cross compliance, may be realised. This approach follows advice advocated by the environmental commentator Mr Stephen Talbott (2004). To quote his conception of a conversation allows for a better understanding of the approach envisaged:

"We cannot predict or control the exact course of a conversation, nor do we feel any such need — not, at least, if we are looking for a good conversation. Revelations and surprises lend our exchanges much of their savor. We don't want predictability; we want respect, meaning, and coherence. A satisfying conversation is neither rigidly programmed nor chaotic; somewhere between perfect order and total surprise we look for a creative tension, a progressive and mutual deepening of insight, a sense that we are getting somewhere worthwhile" (p.41)

Moreover, it is widely reported that mediating meaningful communication about issues of environmental sustainability requires dialogical infrastructure that is capable of encouraging a multiplicity of perspectives (Bradbury, 2005; Bodorkós and Pataki, 2009).

It is envisaged that taking an account of these factors in this research will result in a research conversation which actively engages and learns from the diverse experiential insights of the stakeholders involved. In many ways, the aim of this research was neatly

summed up by the counsel of one farm advisor, who advised the PhD researcher that: *"it is not enough to talk to farmers, you must learn from what they are saying!"*

Research question

To what extent might the concept of a learning process approach be used to inform enhanced interactions between farmers, extension organisations and mandatory agri-environmental policy?

Three sub-questions were employed:

- i. How can using the principles of Participatory Action Research (PAR) strive to provide stakeholders with meaningful opportunities to contribute to a conversation about cross compliance extension practice?
- ii. What are the implications of using narrative inquiry to reveal farmers' subjective experiences of cross compliance policy for extension practice?
- iii. What can multiple-loop learning add to understandings of the efficacy, efficiency and effectiveness of these PAR and narrative inquiry interventions?

1.4 Research approach taken to progress the PhD Learning System

To address the research question, the PhD researcher approached her preferred choice of project collaborators, the specialist advisors from Teagasc's Soils and Environment Programme, with the intention of brokering a mutually satisfying research project related to a perceived problematic situation in the extension of agri-environmental policy. Following some informal discussions between the parties, it was decided to focus on learning how to inform extension practices related to cross compliance. After the realisation of this decision, the PhD researcher commenced a review of the literature pertaining to agri-environmental policies, cross compliance and agri-environmental extension. Simultaneously, she conducted an appraisal of the theoretical approaches pertaining to participatory research and the more participatory types of extension practices. On completion, she synthesised the learning arriving to inform a methodological framework for pursuing a PhD Learning System, which sought to address the research question.

This PhD Learning System developed from three interlinking learning sub-systems. Each sub-system was purposefully pursued with an intention of building an improved appreciation of the links between extension practices and the mandatory policy of cross compliance. The first learning sub-system involved a collaboration between the specialist advisors and the PhD researcher using the principles of PAR. This process was evolving and included identifying, engaging and capturing stakeholder perceptions and preferences for cross compliance and its related extension practices with specific reference to a newly published *Cross Compliance Workbook*. Two learning outcomes arose from this project. Firstly, there was the development of useful insights about stakeholders' perceptions of the *Cross Compliance Workbook* and its associated extension. Secondly, a large number of participants used the research process to reveal experiences of stress, anxiety and fear when engaging with the policy of cross compliance.

It was not expected that so many of the farming participants would report that they were having emotive difficulties with the application and enforcement of cross compliance. Indeed, the findings troubled the PhD researcher and it caused her to reflect on how these social sustainability issues may be affecting farmer engagement with cross compliance. Moreover, an iterative review of the literature revealed that little previous research had sought to ascertain how farmers' subjectivities can intersect with the objectives and requirements of mandatory agri-environmental policy. She conjectured that this lack of knowledge may be impacting on the ability of extension organisations like Teagasc to provide contextually sensitive cross compliance extension practices. She therefore decided that the next stage of the PhD Learning Sub-system should involve working with farmers in order to learn about their experiences of cross compliance. To pursue this intention, she commenced a narrative inquiry research process with a sample of the farmers who had participated in the first research phase. The findings arising from this process deepened her understandings of how farmers can experience cross compliance and are considered to provide rich contextual insights into a broad range of social, economic, technical and cultural factors that can affect farmer engagement with the policy.

Following the completion of this second empirical element, the PhD researcher began to explicate what she had learned in the learning sub-systems to inform the PhD Learning System. In the course of this reflection, she became aware that while the learning sub-systems had provided rich understanding of stakeholders' perceptions and preferences for cross compliance and its related extension, it was not overly clear as to what enhancements for extension practices could be informed when taking account the limitations of extension organisation like Teagasc to respond to all of the participants preferences raised in the learning sub-systems. This observation was significant and merited further consideration. To achieve such contemplation, the final research step of the PhD Learning System involved the progression a multi-loop learning subsystem for the

purposes of understanding the efficacy, efficiency and effectiveness of the use of PAR and Narrative Inquiry for informing extension practices related to cross compliance.

An outline of the three learning sub-systems and how they combine to form and inform the overall PhD Learning System is provided in Figure 4.

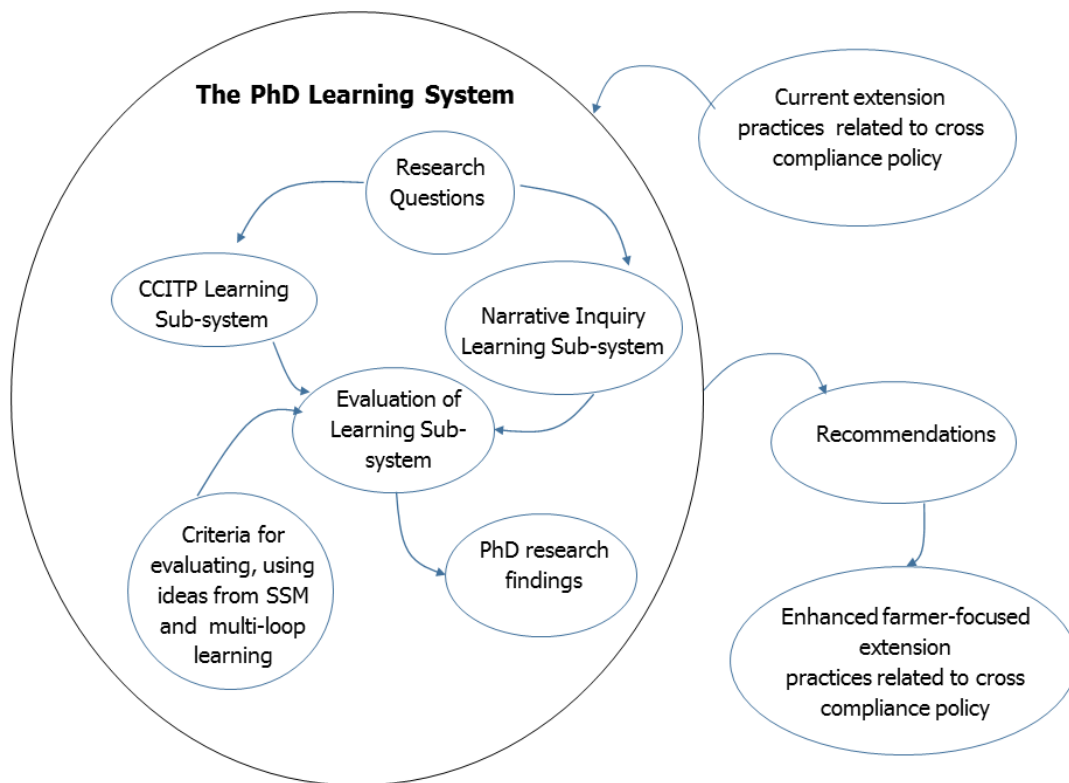


Figure 4: A conceptual model of the PhD Learning System

The findings arising from the progression of this PhD Learning System are detailed in chapters 5, 6 and 7.

1.5 Contribution to knowledge

This research contributes to the body of knowledge in the following ways:

- Firstly, the CCITP Learning Sub-system provides an empirical example of the use of a PAR approach to inform extension practices related to cross compliance policy. This participatory intervention revealed farmers’ perceptions of Teagasc’s cross compliance extension service with a specific reference to the new *Cross*

Compliance Workbook. In addition, the use of a participatory approach revealed that some farmers were experiencing a range of social difficulties with the application and enforcement of cross compliance. Subsequently, an informal commentary from the specialist advisors on the findings of the CCITP allowed for a consideration of what extension organisations can achieve towards improving farmers' experiences of interacting with cross compliance policy.

- Next, following a period of reflecting on the findings and a review of the relevant literature, the PhD researcher recognised that there was a lack of in-depth accounts about the ways in which farmers' can experiences cross compliance. The intimate accounts provided by the participating farmers in the Narrative Inquiry Learning Sub-system are claimed to help address this knowledge gap. The findings in particular provide a nuanced appraisal of the ways in which cross compliance intersects with farmers' subjectivities. The narratives are rich accounts of the ways in which social, economic, technical and environmental phenomena can affect farmer inter-relations with cross compliance policy. It is conjectured that the findings arising from the Narrative Inquiry Learning Sub-system have significant potential to provide rich insights for informing more contextually sensitive and culturally sustainable extension practices related to mandatory agri-environmental policy.
- Lastly, a multi-loop learning process evaluated the outcomes arising from the empirical research taken in the CCITP and subsequent Narrative Inquiry research processes. These evaluations reveal limitations with the extent to which participatory approaches can be used to inform extension practice related to mandatory agri-environmental policy. A particular challenge relates to the apparent limited ability of extension organisation to mediate farmers' preferences

for mandatory agri-environmental policies like cross compliance. Chapter 8 recommends that the development of a Cross Compliance Community of Practice may help to resolve these limitations. A main purpose of this community of practices would involve continuing a process of social learning about how participant preferences and experiences of mandatory agri-environmental policy can be better considered in the development, application and enforcement of mandatory policies.

- Finally, the use of systems thinking and practice in the Multi-loop learning Sub-system for informing the PhD Learning System provided a range of theoretical and methodological insights regarding how purposeful reflection on the researcher's practice can serve to enrich the learning arising from the research process.

1.6 Thesis outline

The process and findings of the PhD Learning System are elaborated in this thesis as follows:

- Chapter 2 will explore sustainable agriculture, the purpose and types of agri-environmental policy, farmer engagement with agri-environmental policy and the application and enforcement of cross compliance in the Republic of Ireland
- Chapter 3 will provide a framework for understanding extension practices. This includes considerations of the 'different ways of knowing', participatory extension practices and participatory research approaches
- Chapter 4 will present the study's methodological framework. This framework includes the research paradigm and a detailed overview of the learning process approach
- Chapter 5 will detail the findings and outcomes of the CCITP Learning Sub-system
- Chapter 6 will provide the findings of the Narrative Inquiry Learning Sub-system

- Chapter 7 will provide a synthesis of the learning arising from the evaluation of the previously discussed learning sub-systems.
- Chapter 8 will conclude the thesis with an exposition of learning arising from the PhD Learning System. This account is followed with some recommendations for future action and research for continuing a process of learning how to inform enhanced interactions between farmers, extension organisations and mandatory agri-environmental policy.

1.7 Chapter conclusion

This chapter outlined significant issues with the applied translation of mandatory agri-environmental policy. Moreover, it was determined that top-down approaches to extension have a limited ability to improve this situation. Considering these problematic circumstances, this doctoral research will explore the utility of bottom-up participatory approaches for facilitating improved knowledge sharing between the different stakeholders involved and affected by the mandatory agri-environmental policy of cross compliance. The intention of this action, is to inform extension practices, which will be more responsive to the needs of the farmers seeking to abide by the requirements of cross compliance. The following chapters 2, 3 and 4 will provide the theoretical and methodological underpinnings of the PhD Learning System involved in this empirical investigation.

Chapter 2

Farmer engagement with agri-environmental policy

2.1 Chapter introduction

Chapter 2 gives an account of the environmental sustainability issues affecting the agricultural sector, followed by a consideration of the concept of 'sustainable agriculture' for resolving these types of issues. Next, an examination of the different policies implemented in the European Union with the intention of embedding more sustainable ways of farming in the agricultural sector is undertaken. This examination is complemented with a discussion of the interrelations between farmers and agri-environmental policies. This section makes particular use of the Theory of Cultural Capital as a means of understanding, the different ways that farmers can take when making decisions related to agri-environmental policy. This chapter concludes with a description of the application and enforcement of cross compliance in the Republic of Ireland.

2.2 Sustainable agriculture

2.2.1 Why sustainable agriculture?

Agriculture plays a vital role in producing food and fibre for society (Power, 2010). The impact of agriculture on the natural environment is however neither benign nor static, with manifold challenges currently affecting the environmental sustainability of the sector (Meffe, 1998; Krebs *et al.*, 1999; Green *et al.*, 2005; Setten, 2005; EC, 2008; Power, 2010; Gomiero *et al.*, 2011; Lee, 2011; OECD, 2011; EC, 2012; Gilburn *et al.*, 2015). At a European level, concerns are rife about the impact of agricultural activities on water resources (Collins *et al.*, 2009b), the contribution of agricultural emissions to climate change (Pelling *et al.*, 2008; Rojas *et al.*, 2013; Tzilivakis *et al.*, 2014), and the increasing loss of farmland biodiversity from intensive production practices (Benton *et al.*, 2003). At the other end of the scale, there are growing concerns with land abandonment particularly in those areas where high nature value farming systems are traditionally practised (MacDonald *et al.*, 2000; EIP-AGRI-Focus-Group, 2015).

The concept of 'sustainable agriculture' is commonly advocated as a farm management approach to help resolve these challenges (Pretty, 1999; Carolan, 2006; Gomiero *et al.*, 2011). Realising the concept in practice, however is complicated, as there is little agreement amongst stakeholders as to what exactly is 'sustainable agriculture' (Bawden, 1991; Pretty, 1995; Norman *et al.*, 2000; Rodriguez *et al.*, 2009; Fleming and Vanclay, 2011; Curry and Kirwan, 2014). This complexity is somewhat predictable, as the sustainable agriculture concept, is expected to embrace multiple perspectives, over time, in relation to changing conditions and insights (Bawden, 1991; Rodriguez *et al.*, 2009; Fleming and Vanclay, 2011; Curry and Kirwan, 2014).

While, as stated above, there is little agreement as to what 'sustainable agriculture' encompasses, certain scholars have attempted definitions. An environmental classification provided by Bioversity-International (2010) views 'sustainable agriculture' as *'the ability of farmland to produce food and other agricultural products to satisfy human needs indefinitely as well as having sustainable impacts on the broader environment'* (p.10). A more economically orientated description that is provided by Tilman *et al.* (2002) determines sustainable agriculture as: *'practices that meet current and future societal needs for food and fibre, for ecosystem services, and for healthy lives, and that do so by maximising the net benefits to society when all costs and benefits of the practices are considered'* (p.671). In addition, the 'sustainable agriculture' concept is influenced by the multifunctional paradigm of agriculture. Renting *et al.* (2009), describe the role of multifunctional agriculture as the provision of renewable natural resources management in tandem with contributions to the socio-economic viability of rural areas. While, Marsden and Sonnino (2008) relate that multifunctional agriculture seeks not only to contribute to the construction of a new agricultural sector, but also that it strives to meet the needs of society, ensure the effective use of rural resources, and improve agricultural incomes.

The many perceptions of sustainable agriculture reflect complexity surrounding definitions of the progenitor concept of 'sustainable development' (Giddings *et al.*, 2002). A popular

definition of 'sustainable development' is that cited in the report *Our Common Future* (Brundtland *et al.*, 1987) which outlines the concept as: '*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*'. The interactions imbued in this definition suggest that for sustainable development to be realised, due account must be given to the complex and sometimes conflicting social, economic, and environmental goals of society. Elkington (2004) refers to these goals as the 'triple bottom line' of sustainability. Gomiero *et al.* (2011) report that for sustainable agriculture systems to be realised will require integrated learnings of the environmental, the social, the economic and the technical issues associated with farming practice. While, Vanclay (2004) advises that policy actors must learn to recognise that farmers do not generally separate environmental issues from other management issues, as in the farmer's mind, there is '*only one farm*' (p.214). In a related sense, Norman *et al.* (2000) cautions against researchers developing their own conceptions of 'sustainable agriculture', particularly conceptions which do not adequately take account of, what the concept means to those who engage in the practice of farming. Farmer conceptualisations of the 'sustainable agriculture' concept are considered in greater detail in the next subsection.

2.2.2 Conceptualisations of 'sustainable agriculture'

Farming practice will impact on the natural environment. This impact is however dependent on the scale and intensity of the practice involved (Dworak, 2007). Individual farming practice in particular will affect the type of impact that arises. This is a key reason why the farmer's role in managing agricultural impacts is now formally recognised in agri-environmental policies (Mills *et al.*, 2013). It should however be noted that while farmers are increasingly portrayed as stewards of the environment, there are numerous studies which suggest that many farmers are continuing to prioritise the role of commodity producer over the role of environmental manager (Burgess *et al.*, 2000; Setten, 2005; Wynne-Jones, 2013; Kvakkestad *et al.*, 2015). Equally tensions are prevalent between

different stakeholder conceptualisations of environmentally sustainable agricultural practice (Vanclay, 2004). Burgess *et al.* (2000), for example, report that while some conservationists consider that farmers as agricultural technicians are ignorant of the workings of nature, many farmers would consider themselves as 'natural conservationists'. Morris (2006) also notes a tendency for policy to position farmers as not holding the necessary knowledge to manage their land in an environmentally positive way. This perception is also reflected in many studies which suggest that often farmers' understanding of environmental matters are often limited (Van Rensburg *et al.*, 2009; Wales-Rural-Observatory, 2011). Conversely, Kelemen *et al.* (2013) observe that farmers, particularly organic farmers are knowledgeable in many areas of environmental management.

In this thesis to avoid generalisations, it is considered more useful to recognise a heterogeneity of farmer engagement with environmental management (Morris and Potter, 1995; Davies and Hodge, 2007; Buckley, 2012). In addition, a cultural shift is noted, in terms of the subjective norms and beliefs of farmers towards more positive environmental management attitudes, particularly amongst younger farmers (Mills *et al.*, 2013). At the same time, Mills *et al.* (2013) report that a portion of farmers remain unengaged with environmental practices and are continuing to focus on how to maximise their production and/or remain resistant to what they perceive as outside interference on their ability to make farm management decisions. Indeed, some farmers reportedly feel a strong sense of alienation from 'society' and its intensifying environmental stewardship demands (Morris, 2006). Moreover, Vandenabeele and Wildemeersch (2010) report that some farmers can even struggle to participate in the debates about the environmental impacts of farming practice as so often these debates (implicitly) call into the question the significance and value of their particular identities as farmers.

Equally, Brodt *et al.* (2006) contend that farmers, as members of wider society form their environmental goals and values within the context of the community whence they reside.

Similarly, drawing on social practice theory, Hards (2011) offers an understanding of environmental values and practice as a co-constructive production. She emphasises in particular, the situated nature of values and practices as being enabled and constrained by the various landscapes in which individuals are embedded. It is also observable at a societal level, that there are gaps between the possession of environmental knowledge and environmental awareness and the display of pro-environmental behaviour (Kollmuss and Agyeman, 2002).

In the Irish context, Howley *et al.* (2014) using a lens of environmental economics, compared the views and perspectives of farmers and the general public towards agriculturally related environmental issues. They observed similar levels of concerns between these two groups regarding the environment as a whole. However, they noted differences between the groups in relation to the perceived importance of maintaining flora and fauna in the countryside, with farmers considered to be less concerned by this issue. Howley *et al.* (2014) determine that this difference may relate to farmers' continued tendency to hold productivist attitudes. On the other hand, it may relate to reports which suggest that Irish farmers were historically not provided with adequate support to develop their environmental awareness (Carlin *et al.*, 2010; DAHG, 2011).

This situation appears to have been partially rectified in recent years, with attendance at environmental training a prerequisite of a farmer's participation in the REPS agri-environmental scheme (Gabbett and Finn, 2005; Kristensen and Primdahl, 2006). The training programmes associated with REPS are reported to have improved participating farmers' awareness of the environmental issues connected to the practice of agriculture (Gorman *et al.*, 2001; Bogue, 2013b). Indeed, Van Rensburg *et al.* (2009) alleges that while environmental awareness among Irish farmers remains low, agri-environmental scheme participants tend to display a greater understanding of agriculturally related environmental issues than nonparticipants. Another perspective perhaps is that farmers with higher levels of environmental appreciation were more likely to join schemes in the

first instance. For instance, Gabbett and Finn (2005) observed that farmers managing agri-environmental demonstration farms tended to display a high level of interest in farmland wildlife, had a concern for its protection and often expressed a strong desire to receive further information on farmland habitats and wildlife groups. The authors however rationalised that this heightened environmental appreciation may have formed part of the farmer's initial decision to become an agri-environmental scheme demonstration farmer.

In the next section, a detailed consideration of the different types of agri-environmental policy in operation in the European Union is given.

2.3 Agri-environmental policy in the European Union

2.3.1 The Common Agricultural Policy

Contemporary agricultural production operates in a particularly complex regulatory landscape (Barnes *et al.*, 2013). Public authorities commonly seek to influence the decision making process of farmers in terms of how they manage their land and other resources (Povellato and Scorzelli, 2006b). EU rural land use, in particular, is considered to be dominated by the various policies that are implemented under the Common Agricultural Policy (Hart *et al.*, 2012; Hodge *et al.*, 2015).

The Common Agricultural Policy (CAP) was introduced in 1963, by the European Economic Community (EEC), in response to the severe food shortages that were experienced during and after World War Two. In its earliest formation, the CAP was a food and agricultural development programme, designed and enacted to prevent a recurrence of food shortages. The policy was successful in meeting these food security objectives, however as the CAP matured, a societal dissatisfaction with the policy's dominant emphasis on production emerged (Emerson and Gillmor, 1999; Hodge *et al.*, 2015).

Concerns were in particular raised about the environmental sustainability of the more intensive types of agriculture that were evolving under the CAP. These more intensive modes of production were suggested to be contributing to:

- The abandonment of marginal agricultural land (MacDonald *et al.*, 2000; EIP-AGRI-Focus-Group, 2015)
- Biodiversity loss (Pain and Pienkowski, 1997; Donald *et al.*, 2002; Henle *et al.*, 2008)
- Water quality and quantity issues (Moss, 2004)

The EEC response, while initially slow to develop, did eventually see the enactment of procedures to devise policy to address the suggested negative environmental impacts of more intensive agricultural practices (Emerson and Gillmor, 1999; Gay *et al.*, 2005; Jordan, 2012). The Cork Declaration in 1996, for example, formally assigned farmers with a stewardship role over agro-ecosystems (Gorman *et al.*, 2001). Other initiatives including the Mc Sharry Reforms brought about a process which Crowley (2003) refers to as the environmentalisation of EU farm policy. In the present context, agri-environmental schemes and cross compliance are reported as the main components of the CAP most explicitly targeted at improving the environmental impacts of agricultural practice (Bartolini *et al.*, 2012).

2.3.2 EU agri-environmental policy

In this sub-section, a detailed description of the governance process used to implement EU agri-environmental policy is outlined. This description makes use of a policy continuum that ranges from voluntary practice to mandatory prescriptions. A visualisation of this continuum is provided in Figure 5 below.

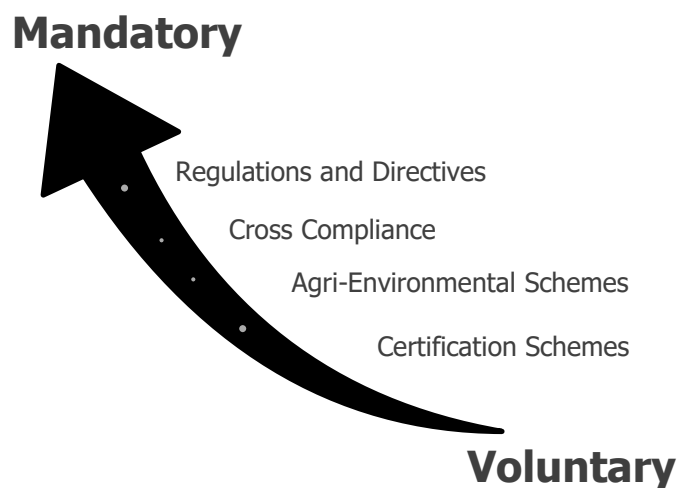


Figure 5: EU agri-environmental policy continuum

i. Regulations and directives

The majority of standards pertaining to EU agriculture are set out in binding legislation, which has legal force in the 27 Member States. Regulations are immediately applicable in state law, whereas directives are usually assigned a time period, within which each Member State must make provision for national compliance (Hart *et al.*, 2012).

ii. Cross compliance

The policy of cross compliance formally emerged in the EU with the enactment of EC Regulation 1782/2003. Its application obliged all farmers in receipt of compensation under the Single Farm Payment and later under the Basic Payment Scheme (BPS) to abide by certain statutory management requirements and

conditions of good environmental and agricultural condition (Kristensen and Primdahl, 2004). It is considered that under EC Regulation 1698/2005, cross compliance serves as a baseline against which agri-environmental scheme prescriptions and payments are identified and justified (Bartolini *et al.*, 2012). A more detailed description of the concept of cross compliance is provided in Sub-section 2.3.4.

iii. Agri-environmental schemes

The agri-environmental scheme policy mechanism was introduced under the MacSharry Reforms in 1992. Agri-environmental schemes were envisaged as a way to provide financial incentives for farmers to adopt more environmentally favourable farm management practices. This incentive may be linked to a growing recognition that many environmentally favourable practices were no longer profitable and would need government subsidisation for their continuance (Hodge *et al.*, 2015). Agri-environmental schemes are also expressed as a means to provide income support to those farmers working scenic but disadvantaged land (Banks and Marsden, 2000; Wynne-Jones, 2013). The environmental effectiveness of agri-environmental schemes is however widely debated. Some scholars suggest that there is little scientific evidence to indicate any positive effects on the biodiversity of participating farms (Kleijn *et al.*, 2001; Swagemakers *et al.*, 2009). More recent evidence however appears to indicate that there are correlations between agri-environmental schemes and increasing biodiversity on participating farms (Marja *et al.*, 2014; Batáry *et al.*, 2015; Hodge *et al.*, 2015). Moreover as Burton and Paragahawewa (2011) report, it is likely that without these schemes, the agri-environment of the EU would be in a worse state than it currently is.

iv. Voluntary certification schemes

The standards associated with voluntary certification schemes are set by a competent body who certifies conformity with a product standard or market requirements. The certification process will often involve regular farm audits by a competent body (Farmer *et al.*, 2007). EU voluntary certification schemes are currently limited to organic production and labels validating the authenticity of regional products (Farmer *et al.*, 2007). At the farm level in the Republic of Ireland, Bord Bia (The Food Development Board) administer two voluntary certification schemes; the Sustainable Dairy Assurance Scheme and the Beef and Lamb Quality Assurance Scheme.

To summarize, the EU policy continuum described above, illustrates that there are a range of ways to approach the application of agri-environmental policy. Voluntary approaches such as agri-environmental schemes and voluntary certification schemes for example perform as 'nudges' to change farmers behaviour whereas as the more mandatory forms of policy such as cross compliance are considered 'budges' (Barnes *et al.*, 2013). Hart *et al.* (2012) relate that while cross compliance is often conceptualised as belonging to the sphere of voluntary incentive measures, farmer dependence on BPS for farm viability effectively obliges them to abide by the requirements of this policy. Moreover, Bartolini *et al.* (2012) relate that farmer participation in voluntary agri-environmental schemes can enable at least partial compliance with cross compliance requirements, particularly as certain synergies are evident in the monitoring of these policy approaches. Similarities are also noted between cross compliance requirements and the standards associated with voluntary agricultural certification schemes (Farmer *et al.*, 2007).

Conversely and notwithstanding, the range of agri-environmental initiatives that have been implemented under the CAP, environmental issues pertaining to unsustainable intensive agricultural practices and concurrent land abandonment remain (Crowley, 2003;

Boccaccio *et al.*, 2009; Stoate *et al.*, 2009; Hodge *et al.*, 2015). Furthermore, from an economic sustainability perspective, it is suggested that meeting the higher environmental standards of EU production may be affecting the competitiveness of EU agricultural products on the world market (Menghi *et al.*, 2008).

2.3.3 Cross compliance

The policy of cross compliance obligates all farmers in receipt of compensation under the BPS to abide by statutory management requirements (SMR) covering the following production areas: the environment, public, animal and plant health, identification and registration of animals, notification of diseases, and animal welfare. Thirteen SMRs are set out under Council Regulation (EU) No. 1307/2013 to cover the 2014-2020 period of the CAP:

- SMR 1 Protection of water against pollution caused by nitrates
- SMR 2 Conservation of wild birds
- SMR 3 Conservation of natural habitats and of wild flora and fauna
- SMR 4 Food and feed hygiene
- SMR 5 Restrictions on the use of certain hormonal and other substances in farm animals
- SMR 6 Pig identification and registration
- SMR 7 Cattle identification and registration
- SMR 8 Sheep and goat identification and registration
- SMR 9 Prevention and control of transmissible spongiform encephalopathies
- SMR 10 Plant protection products
- SMR 11 Welfare of calves
- SMR 12 Welfare of pigs
- SMR 13 Animal welfare

Farmers must also maintain their land in Good Agricultural and Environmental Condition (GAEC). This requirement is not explicitly specified in legislation, however Member States are required to take account of their specific regional characteristics including soil and climatic condition, existing farming systems, land use, crop rotation, farming practices, and farm structures (Council Regulation (EC) No. 73/2009). Three additional requirements were also added under Council Regulation (EU) No. 1307/2013. These measures popularly referred to as 'greening measures' encompass the introduction of ecological focus areas, the maintenance of permanent pasture and requirements pertaining to crop diversification.

Cross compliance is administrated by an inspection process. Farmers may be liable for financial penalties if a non-compliance issue or issues are determined by an enforcement authority during an inspection. Two specific types of inspections are progressed; eligibility checks (related to the area claimed for payment) and cross compliance checks (to determine recipient compliance with SMRs and GAEC). Additionally, the payment agencies of the Member States are regularly scrutinised by EU authorities to ensure that they are properly administering the CAP budget (EC, 2007).

Member States are required under Regulation (EC) No. 782/2003 to provide a system for advising farmers on land management matters. This system, known as the Farm Advisory System (FAS) is expected to support farmers' awareness of the logic and requirements of cross compliance policy (EC, 2010). It is also tasked with helping farmers to improve their awareness of the material flows and on-farm processes that are related to the environment, food safety and animal health and welfare (EC, 2010). Farmer participation in a FAS is voluntary, with individual farmers also responsible for acting on any advice that they receive from FAS advisors (EC, 2010). The FAS is entirely separate from the cross compliance regulatory process. FAS advisors are not permitted to disclose data collected from a farm holding in the course of their advisory activities. The only exception

to this rule is the discovery of an irregularity covered by an obligation laid down in either EU or national law to specifically inform a public authority (EC, 2010)

Each Member State will have a FAS government coordination unit, an implementation unit (either government or outsourced) and accredited or designated operating bodies, who may function either on a profit or non-profit basis. Equally, no set template for FAS advice is provided but one-to-one advice with checklists is suggested as an efficient advisory method, particularly in diagnostic phases of advice (Povellato and Scorzelli, 2006b). It should be noted that FAS extension services can take the form of 'information', 'training' and 'advice'. Information and training is suggested as the exchange between farmers and advisors about the requirements of cross compliance. Advice as provided for under the cross compliance FAS is outlined by Berglund and Dworak (2009) as *'the provision of technical skilled opinion on a specific subject to assist the farmer in his decision making'* (p.5). FAS funding is provided under the Rural Development Pillar of the CAP, however the actual costs to farmers vary across the Union, depending on the approach taken by the Member State (EC, 2010). An overview of the different FAS approaches, undertaken by Berglund and Dworak (2009), indicate that there is considerable heterogeneity in FAS application across the EU. Member States have a degree of discretion in the provision of FAS however the service must at least cover the requirements of cross compliance (EC, 2010).

2.4 Farmer interaction with agri-environmental policy

2.4.1 General considerations

Policy awareness is arguably a prerequisite for farmer engagement with a policy (Winter and May, 2001; Jaraitė and Kažukauskas, 2012). Moreover, it is reported that a lack of awareness or indeed a poor awareness of the requirements of a policy can affect farmers' attitudes towards that policy. For example, a recent DEFRA study concluded that negative attitudes towards cross compliance were often the result of farmer uncertainty of a

requirement or not being convinced of the benefits of a particular requirement (DEFRA, 2009). Following issues of awareness, farmer engagement with a policy may be affected by motivation, willingness, and/or the farmers' capacity to comply with the prescribed requirements of the policy (Winter and May, 2001; Mills *et al.*, 2013). Inclination to comply is suggested as more likely when a farmer perceives that the policy is fair, relevant and necessary (Davies and Hodge, 2006). Furthermore, the presence of other policy interactions, for instance, having farmland designated under Natura 2000, can influence a farmer's motivation to undertake agri-environmental measures (Murphy *et al.*, 2014). Another pertinent consideration is that farm decisions will usually be taken with an account of longer time-scales than those typically specified in policy (Oreszczyn and Lane, 2006).

Following awareness and inclination to comply, a range of elements and dynamics can still influence farmer engagement with a particular policy. These factors are outlined by Mills *et al.* (2013) to include the economic, personal, social and situational characteristics of the farmer and their household, the physical and operational factors of the farm, the nature of the policy, and the individual values, beliefs and attitudes of the farmer. Moreover, farm management practices are reported to be significantly embedded in the history of the farm, with many practices based largely on habit and tradition (Vanclay, 2004; Macken-Walsh *et al.*, 2012). Similarly, it is suggested that if advocated production activities or technologies conflict with the practical locally specific form of knowledge of the farmer, that they will most likely be resisted by that farmer (Macken-Walsh *et al.*, 2012). It is also noted that farmer engagement and application of agri-environmental policy can be problematic when the policy requires that farmers adapt procedures contradictory to the established norms of 'good' farming practice (Davies and Hodge, 2007; Burton and Paragahawewa, 2011; OECD, 2012). Whilst, it is also recorded that agri-environmental policy prescriptions can fail to take account of the disturbance of imposing routine calendar-based activities on farmers who are more accustomed to taking

intervention decisions using observation and anticipation (Röling and Pretty, 1997; Buckley, 2012).

Taking these social and cultural factors into account, this thesis has examined the Theory of Cultural Capital as a potential way of reflecting upon farmer engagement with agri-environmental policy. This theory was developed by Bourdieu (1986) and later applied to agriculture by scholars including Burton and Paragahawewa (2011) and Macken-Walsh *et al.* (2012). The theory relates three particular forms of capital with relevance for farmer decision-making. These capitals are: economic capital, social capital and cultural capital. The first listed, 'economic capital' is the ability of material and financial wealth to influence the management directions taken by a farmer. The second, 'social capital' is related to the value that a farmer will place on his/her social relationships and the potential for their farm decisions to affect these relations, while the third, 'cultural capital' is described as that which a farmer perceives as esteemed or prestigious.

A range of authors have utilised Bourdieu's (1998) theory to understand farmer engagement with agri-environmental policy. In particular, Burton and Paragahawewa (2011) use it to investigate why agri-environmental schemes are not engendering long-term changes in farmers' attitudes towards the environment. It had been predicted by authors such as Lowe *et al.* (1999) that farmer participation in agri-environmental schemes would change farmer behaviour towards being more positively orientated to the natural environment. However, many scholars contend that this behavioural change was never fully realised (Wilson and Hart, 2001; Burton *et al.*, 2008; Lobley *et al.*, 2010). This non-action is commonly attributed to a cultural resistance to the prescribed practices of agri-environmental schemes. In particular, it is suggested that the detailed prescriptions of agri-environmental schemes can undermine farmers' usual decision-making strategies (Burton and Paragahawewa, 2011). While, it is also reported that prescribing management practices and designating specific areas for agri-environmental work prevents farmers from developing opportunities to demonstrate their skilled role

performance and the associated development of embodied cultural capital (Wilson and Hart, 2001; Burton *et al.*, 2008; Burton and Paragahawewa, 2011). Furthermore, Juntti and Potter (2002) suggest that the standardised delivery of agri-environmental policies has failed to bring about the shift in thinking that is argued necessary for farmers to learn about and implement environmental management in a 'thoroughgoing' sense. Finally, agri-environmental schemes are criticised for failing to take account of the potential cultural costs of agri-environmental engagement. Banks and Marsden (2000) for example note that participating farmers in the Tir Cymen agri-environmental scheme in Wales were *'encouraged to pursue one style of farming and their lands will contain access rights of way and evidence of countryside gentrifications'* (pp.478-9). Such symbols, according to the authors were culturally unacceptable for many farmers who did not want to stand out from their peers.

This type of observation relates to Burton (2012) and his belief that farmers spend considerable time 'reading' the landscape for signs of skilled practice amongst their colleagues. Indeed, Setten (2004) emphasises that farmers tend to view the landscape as 'a bounded area of practice', with visible land management considered a reflection of the particular farmer working that land. For this reason, Setten (2005) argues that farmers' perception of the landscape should be understood *'as lived and practised within situations that are personal and yet social, private and yet public, of the present and yet of the past and future'* (p.74).

Furthermore, the cultural capital of a farmer can affect their ability to access social capital (Sutherland and Burton, 2011). Social capital remains an important resource for small-scale farmers, who often rely on it, to gain access to labour in instances of need, such as a family emergency. Conversely, Sutherland and Burton (2011) relate that the farmers who benefit most from social capital are often those most reliant upon it. Moreover, Pretty (2003) contends that social capital plays an important role in the collective management of resources, and he suggests that in the past and increasingly in the present, that

communities are learning that they must collaborate if they are to have more effective management of their natural resources.

Social capital concerns may also affect farmer engagement with agri-environmental policy. It is noted that farmer decision-making is a result of social processes (Pannell *et al.*, 2006). While Macken-Walsh *et al.* (2012) outline that decisions-making on family farms will normally occur in a cross generational context with the perspectives and attitudes of a range of family members having an influence on final decision making. Furthermore farmers may be influenced by their various connections and networks. These particular interactions are noted as a 'web of influence' on the farmer's practice (Oreszczyn and Lane, 2006; Oreszczyn *et al.*, 2010). These connections may be diffuse (for example through the internet) or close knit (Curry *et al.*, 2012). The role of 'communities of practice' (Wenger, 1998) for influencing farmer practice is particularly noteworthy. For example, farm discussion groups are a type of community of practice. According to Hards (2012), 'communities of practice' can serve as sites for the development, negotiation and dissemination of values, including concepts of the good life, identities and understandings of appropriate practice. She further suggests that participation in such communities can involve a gradually intensifying commitment by its members to shared values. Conversely, there are a range of perspectives regarding how peer review processes can impact on a farmer's decision-making. For example, Vanclay (1997a) argues that farmers 'rate' other farmers as the most important sources of information about farming matters while Oreszczyn *et al.* (2010) in contrast found that farmers do not always learn directly from their colleagues, and will often make their farm decisions based on communications with a diverse groups of people and organisations, not all of whom will be related to agriculture.

Moreover, Burton and Paragahawewa (2011) argue that understanding the nature and exchange of cultural capital between farmers is crucial for creating more culturally sustainable agri-environmental policies. They contend that farmers' peer review processes

are often critical of pro-active agri-environmental practices with certain types of agri-environmental activity (for example conservation set-aside) considered to be contradictory to the norms of 'good' farming practice. They relate that if such activity is observed in a conventional farm system, the reputation or status of the farmer undertaking the practice can lessen in the eyes of their peers who attach little symbolic capital to the practice. Farmers are also considered to prefer tidy agricultural landscapes, with the 'wild' nature of conservation plots determined to be something they find difficult to accept (Burton, 2012). Farmers are also more than willing to criticise other farmers' mistakes, although Burton (2004) notes this is often in a friendly or joking manner. At the same time, he states the importance that an individual farmer will place on being recognised as a 'good' farmer by farming peers' should never be underestimated, as farm decisions are often made to seek their peers' approval.

It is however reported that the heterogeneity of farmer logic can extend to the definitions of the 'good' farmer (McGuire *et al.*, 2013). Recent research from Saunders (2015) for example concludes that while some Swedish farmers remain 'mired' in a narrow productivist mind-set, there is a need for wariness when conceiving conceptions of a 'good' farmer strictly in its productivist terms, as according to Saunders, the '*rules of the agricultural game*' have changed (p.1). These changes have led, according to Saunders, to an increased number of farmers seeking opportunities within the multifunctional agricultural field. Equally, Bruce (2013) reports a growing emphasis amongst farmers on considerations of the consumer in their conceptualisations of the 'good' animal.

Conversely, Glover (2015) suggests that the social and cultural heritage of farming families are being challenged by powerful players in the field. She reports that many farmers are experiencing the changes to traditional farming practices as beleaguering, with some can even feeling that their way of life is being eroded. She further reports that the shift is causing high levels of stress amongst certain farmers. Glover (2015) highlights that many farmers are torn between financial rationality, which risks upsetting their social

and cultural capital, and/or remaining traditional, and getting left behind. She suggests that to avoid this conflict, policy developers must make more concerted efforts to blend traditional values with modern business practice. Similarly, Riley (2016) reports that the concept of the 'good' farmer may need to be reshaped in order to take account of the geographically-contingent nature of the term and its hitherto focus on farming individuals. He also suggests that there is a need for improved understandings of the multiple forms of capital, which can constitute the 'good' farmer identity. In addition, Riley (2016) highlights that there is a potential for policy actors to be included in conversations about the 'good' farmer. He further suggests that policy actors can build their own 'good' farmer capital. Such a process, he suggests is possible, were policy actors to increase their engagement with farmers, improve their awareness of the specific geographic contexts of farming and through their demonstration of a more contextualised knowledge of the sector.

The policy of cross compliance is part of the range of changes taking place within the agricultural sector. Other modifications include the rise of alternative systems such as organic farming, and the decoupling of agricultural support. It is suggested that these changes are altering the 'rules of the game' (Sutherland, 2013; Riley, 2016). In particular, Riley (2016) notes that while the agricultural sector is often construed as static, this is not the case, as farming cultures are constantly evolving. In particular, he suggests that recent agri-environmental policy changes may be cumulatively (re) aligning symbols of 'good' farming with more pro-environmental types of farming practice. He further reports that while outside interferences such as agri-environmental policy were previously not wholly welcomed in the sector, he believes that there is a growing acceptance at least amongst some farmers, of the need to cooperate with, and to a large extent to be directed by external organisations.

In the next Sub-section 2.4.2, there is an examination of the ways in which farmers relate to the mandatory agri-environmental policy of cross compliance.

2.4.2 Farmer interaction with cross compliance policy

The policy of cross compliance is perceived as having significant potential to bring about positive changes to the inter-relations between farming practice and the natural environment (Webster and Williams, 2002; Henriksson, 2007; Jaraitė and Kažukauskas, 2012). In particular, the creation of a financial link between cross compliance and the BPS, is considered as an obvious enticement for improving the environmental performance of farms. A number of caveats to this perception are however relevant. Firstly, it is reported that some farmers may compromise losing their BPS if they that believe the costs of complying with the policy are too high (Bennett *et al.*, 2006; DEFRA, 2009). These costs, according to Ridier *et al.* (2008) include:

- i. **Information costs:** time and expense associated with the gathering of the necessary information on the measures and the modes of enforcement of cross compliance
- ii. **Administrative costs:** time and expense required to meet the administrative requirements of cross compliance i.e. form filling and day to day record keeping
- iii. **Organisational costs:** time and expense involved in meeting the requirements of the policy. This can include changes to farm practices as well as the need for technical support, and the organisation of administrative tasks

Conversely, the Swedish Board of Agriculture (2011) report that the costs of cross compliance are low, although they do acknowledge that there can be variation between farms. In addition, DEFRA (2009) note that the fixed cost component of cross compliance can have a disproportionate impact on smaller farms. They however consider that some farmers can incur unnecessary costs by over-reacting to the requirements of cross compliance. At the same time, it is likely that farmers on low incomes will struggle to meet

the costs of compliance. This observation relates to Vanclay's (2004) and his observation that *'it is hard to be green when you are in the red'* (p.214).

Moreover, while from a classical economic approach, it would seem obvious that decisions relating to compliance will be made on judgements based on cost-(foregone) benefit decisions, Herzfeld and Jongeneel (2012) argue that such understandings are limited, as the empirical evidence indicates that people behave more honestly than classical, deterrence models predict. Similarly, Davies and Hodge (2006) report that just because a farmer does not support the principles of cross compliance does not necessarily equate to their noncompliance, as other factors including 'obedience' and 'conscience' to follow the law may well compel their compliance. While, Sutherland (2010) notes that an increasing number of farmers perceive that abiding by agri-environmental regulations is necessary to ensure the viability of the farm. Other relevant perceptions include enforcement risk (Neal and Walters, 2007) and the farmer's relationship with the regulatory authority (Hall and Pretty, 2008; Fisher, 2013). It is also noted that a farmer's ability to comply with policy can regardless of their intention, be compromised by unpredictable forces such as weather events (Blackmore, 2014). Conversely, Fraser (2013) highlights that within the agricultural sector, as in wider society, deviant behaviour occurs and some individuals may intentionally try to cheat the system.

Returning to the environmental aspects of cross compliance, there are reports to suggest that this policy has a capacity to enhance farmland conservation, reduce environmental damage, and improve the maintenance of natural and historical features on farmland (Varela-Ortega and Calatrava, 2004). This contention is supported by the observations of Jaraitė and Kažukauskas (2012) who note a reduction in farmer expenditure on farm fertilisers and pesticides since the introduction of the policy. The Swedish Board of Agriculture (2011) also consider that the GAEC measures of cross compliance have provided environmental benefits that are rather unlikely to have occurred without the application of the policy. In addition, cross compliance is considered to strengthen the

national application and enforcement of environmental standards, as Member States risk attracting significant penalties if they fail to appropriately apply the policy (Bennett *et al.*, 2006; Meyer *et al.*, 2014). Conversely, Juntti (2012) reports a considerable variance between the regulatory approaches of Member States.

The link between environmental practice and farm payment is also reported to have conceded society to be more acceptable of the payment of income supports to farmers (OECD, 2010). Recent research indicates a relatively high acceptance of the payment of EU aid to farmers from European Union citizens (EC, 2016). Although, Salazar-Ordóñez and Sayadi (2011) suggest that societal perceptions regarding the claimed positive environmental outputs from agriculture under the CAP are often influenced by the characteristics of the region where people live and the environmental problems associated with this region. Significantly, conservation actors such as the NGO Birdlife International also note the potential of the concept of cross compliance as a tool for improving environmental standards on European farmland (Boccaccio *et al.*, 2009). However, the organisation considers that in its current form that the policy of cross compliance has inadequate objectives, targets and mechanisms for monitoring and evaluation and is not delivering for biodiversity and the natural environment. Moreover, they argue, that the policy does little to engender farmers to improve their environmental performance (Boccaccio *et al.*, 2009). Juntti (2006) similarly argues that the political formulation and subsequent application of cross compliance has meant that it has little ability to enact any change to conventional farming practices. She reports *'the likelihood of significant environmental improvements is low as the divergent definitions of the policy problem which cross compliance is seen to address, harbour aspects that can be seen in conflict with rigorous implementation of its environmental aim'* (p.11). This argument may relate to previous observations which report that the CAP is negotiated in a policy arena heavily influenced by agricultural interests (Hodge *et al.*, 2015). However, conflicts between agricultural and environmental interests should according to the logic of Röling and Pretty

(1997) not be considered unusual, as policy in practice will always likely be the net result of different interest groups pulling in complementary and opposing directions. A further weakness of cross compliance is that the policy only applies to farmers in receipt of a BPS and is not applicable in the vegetable, pig and poultry industries, even though according to Bennett *et al.* (2006), these sectors are associated with severe negative environmental impacts.

Equally, the monitoring and sanction systems that are used to enforce policies such as cross compliance are noted to be 'politically sensitive issues' (Bartolini *et al.*, 2012). In particular, cross compliance is a sensitive issue because of its significant potential to limit farm income (Aviron *et al.*, 2008). However, at the same time, it is the avoidance of this eventuality which most economists will argue incentivises farmers to comply with its requirements (Ridier *et al.*, 2008). Conversely, Barnes *et al.* (2013) suggest that the debate pertaining to farmers responses to mandatory regulation would seem to indicate that many farmers have an aversion to responsibility, a lack of knowledge about the purposes of the requirements and ultimately high levels of resistance to the impositions of regulations. Furthermore, when first introduced, cross compliance was severely resisted by many farmers, who were apparently uncertain as to how the policy would impact their business (Davies and Hodge, 2006; Jones, 2006). An unintended consequence of cross compliance is perhaps the anxiety felt by many farmers with regard to the risk of penalisation (DEFRA, 2009). Although, it is noted that there are conceptualisations from certain interest groups who believe that it is appropriate to increase the risk of 'punishment' for those farmers who do not adequately implement environment standards (Osterburg *et al.*, 2005).

From the above discussion, it is evident that there is a diversity of conceptions relating to cross compliance. In the following Sub-section 2.5, an overview of the application and enforcement of cross compliance in the Republic of Ireland is provided to generate a context for the empirical exploration that follows.

2.5 Cross compliance in the Republic of Ireland

2.5.1 Application and enforcement

The Department of Agriculture, Food and Marine (DAFM) undertakes the primary application and enforcement of cross compliance in the Republic of Ireland. In addition, a number of government agencies have an ability to cross report compliance issues if they believe that they have detected an activity, which contravenes the requirements. Since inception, the DAFM have consistently detected non-compliance issues on Irish farms (Murphy, 2013). The most recent figures published by Agriland (2015) outline that the DAFM undertook 1,368 cross compliance inspections in 2014. From this total, some 528 BPS recipients were determined to be in breach of their requirements and received a monetary penalty or sanction, a further 490 inspections revealed a 'minor breach' but no monetary sanction was applied, while 350 inspections did not result in the detection of a cross compliance breach. Figure 6 displays a county breakdown of these inspections (Agriland, 2015).

2014 Full Cross Compliance Inspections

| County | Number Completed | Number of Clear Cases (No Breach) | Number with Minor Breach* | Number with Penalty/Sanction |
|-----------|------------------|-----------------------------------|---------------------------|------------------------------|
| Carlow | 30 | 6 | 9 | 15 |
| Cavan | 34 | 3 | 11 | 20 |
| Clare | 48 | 11 | 18 | 19 |
| Cork | 150 | 25 | 58 | 67 |
| Donegal | 44 | 27 | 11 | 6 |
| Dublin | 10 | 2 | 3 | 5 |
| Galway | 118 | 41 | 33 | 44 |
| Kerry | 68 | 23 | 23 | 22 |
| Kildare | 34 | 14 | 11 | 9 |
| Kilkenny | 47 | 10 | 14 | 23 |
| Laois | 51 | 9 | 29 | 13 |
| Leitrim | 24 | 10 | 6 | 8 |
| Limerick | 87 | 26 | 43 | 18 |
| Longford | 26 | 4 | 12 | 10 |
| Louth | 27 | 9 | 11 | 7 |
| Mayo | 72 | 32 | 18 | 22 |
| Meath | 48 | 10 | 24 | 14 |
| Monaghan | 44 | 7 | 15 | 22 |
| Offaly | 40 | 10 | 12 | 18 |
| Roscommon | 39 | 9 | 12 | 18 |
| Sligo | 34 | 18 | 7 | 9 |
| Tipperary | 127 | 14 | 53 | 60 |
| Waterford | 41 | 3 | 16 | 22 |
| Westmeath | 34 | 6 | 11 | 17 |
| Wexford | 65 | 14 | 19 | 32 |
| Wicklow | 26 | 7 | 11 | 8 |
| Total | 1,368 | 350 | 490 | 528 |

* 'Minor Breach' refers to cases with minor non-compliances resulting in no monetary sanction

Figure 6: County by county breakdown of inspections

Accessing more detailed descriptions of cross compliance inspections than those listed above is difficult, as there are complications with accessing specific information on the types of breaches detected. This is unsurprising as logically farm inspection data is sensitive and carefully managed by the DAFM. The DAFM did however release some information regarding the types of breaches detected in 2009.⁸ A summary of this data is outlined in Table 1.

⁸ <http://www.agriculture.gov.ie/farmerschemespayments/crosscompliance/> Last accessed 31st of January, 2016 14:40pm

Table 1: Principal non-compliance breaches that were detected by the DAFM in 2009

| Cattle | Nitrates | Sheep | Pesticides | GAEC | Food Hygiene |
|--|---|---|--|--|---|
| <p>42% of all non-compliances recorded in 2009 related to Bovine Identification and Registration. 45% of non-compliances related to CMMS irregularities, i.e., failure to notify movements, births and deaths to the database. 24% related to passport discrepancies, i.e., no passports, missing passports and surplus passports. 17% related to bovine herd register discrepancies, i.e., no entries, missing entries and incorrect entries while 14% related to tagging irregularities.</p> | <p>17% of all non-compliances found in 2009 related to Nitrates. 38% of all Nitrates breaches related to the inadequate collection of livestock manure, other organic fertilisers, soiled water or silage effluent while 21% related to the inadequate management of the storage facilities for livestock manure, other organic fertilisers, soiled water or silage effluent. 14% of breaches were where there was a failure to minimise the generation of soiled water and 12% of breaches were for structural defects to storage facilities leading to direct or indirect runoff to groundwater or surface water. 7% of the breaches recorded were for the stockpiling of manure on lands during the prohibited period. A further 8% were for a range of smaller questions.</p> | <p>18% of all non-compliances found in 2009 related to Ovine Identification and Registration with 60% of these breaches pertaining to Census problems. 28% related to the failures to adequately maintain a flock register and 12% related to tagging irregularities.</p> | <p>9% of all breaches uncovered in 2009 related to Pesticides. 60% of these breaches related to unregistered products while 14% of breaches were for the failure to maintain a register. 5% of breaches were for the failure to display a warning sign on a chemical store while 3% of breaches were for inadequate storage facilities. The remaining 18% of breaches were spread over 14 further questions.</p> | <p>8% of all breaches uncovered in 2009 related to Good Agricultural and Environmental Conditions. 35% of these breaches were for the failure to prevent the encroachment of Invasive Species with 32% relating to the failure to control Noxious Weeds. 16% of breaches were for rutting or poaching of permanent pasture by machinery or animals. 5% of breaches concerned the failure to maintain a stockproof boundary while 4% of breaches were due to severe poaching of land that was leading to soil erosion. The remaining 8% of breaches were spread out over 5 further questions.</p> | <p>3% of all breaches recorded in 2009 were for problems in relation to Food Hygiene. 28% of breaches related to the inability to store, transport or use feed in a manner so as to avoid serious contamination while 15% of breaches related to the use of unauthorised/illegal substances. 12% of breaches were for the inadequate separation of dairy sources from contamination while 10% were related to the dairy/milking parlour not being kept clean or in good repair. 9% of breaches were for the inadequate control of vermin on the farm with 7% of breaches recorded for the incorrect use of feed additives or veterinary medicinal products. 7% of breaches were for the failure to observe withdrawal periods for certain products while 6% were for the failure to clean surfaces that were intended to come in contact with milk. The remaining 6% was spread over 3 further questions.</p> |

Finally, the DAFM have processes in place, which allows farmers to challenge the decisions of farm inspectors regarding the detection of non-compliance issues. The most recent clarification of these processes is provided in the updated *Farmer's Charter of Rights* which will operate in the period between 2015-2020 (DAFM, 2015a). This charter was agreed between the DAFM and the main farm organisations and is reported to clarify the DAFM's commitments to their farmer customers (DAFM, 2015a).

2.5.2 Irish farmers' perceptions of cross compliance

Little research has been progressed to understand Irish farmers perceptions of cross compliance. An exception is a study from McCormack (2012) which used National Farm Survey data from dry-stock, dairy and tillage sectors to assess farmers perceptions of the link between cross compliance and the BPS. This study determined that the majority of the farmers surveyed were accepting of the link between cross compliance requirements and the BPS. Additionally, farmers were reported to be more likely to agree with the link if they had previous experience of being involved in agri-environmental schemes, had higher education levels or were farming marginal land types. McCormack (2012) further related that farmers were more likely to disagree with the relationship if farming intensively, farming larger farms or when farming 'better' quality land.

2.5.3 The Farm Advisory System of the Republic of Ireland

The Irish Farm Advisory System (FAS) is coordinated by the DAFM and a database of designated FAS advisors is provided on the organisation's website.⁹ Designated advisors include both private advisors and Teagasc advisors. Prager and Thomson (2014) note an unease amongst certain private advisors regarding how the FAS is operated in the Republic of Ireland, with a number of private advisors known to be critical of the provision of state aid to Teagasc for providing cross compliance support and advice. This dissatisfaction may relate to Berglund and Dworak's (2009) observation that private

⁹ <http://www.agriculture.gov.ie/farmerschemespayments/farmadvisorysystem/> Last accessed 10th February, 2016 11:23am

advisors do not receive adequate funding (or indeed any) to administer FAS advice to their farming clients.

Conversely, a recent submission to the public consultation on the Rural Development Programme for Ireland (RDP) 2014-2020 from Teagasc (2013) concludes that there is need for additional supports to expand the current FAS. In particular, the Teagasc submission reports that there is a need for a *'faster transfer of knowledge from research and expanded FAS requirements to practical farming'* (p.5). The submission also highlights the important role of farm advisors in improving compliance on farms and the organisation is in particular critical of the continued focus on audit and penalty with according to submission the *'potential role of education and information support'* being *'left completely out of the equation'* (p.58).

At present, Teagasc has the most prominent public application of the FAS in the Republic of Ireland, although some private bodies do occasionally provide public seminars and meetings on cross compliance matters (Prager and Thomson, 2014). Teagasc has disseminated cross compliance advice since 2007 (Teagasc, 2013). It also provides cross compliance information and training supports to both clients and non-clients (Hyde, 2013). Additionally, Teagasc facilitates farm advisors attendance at DAFM FAS training, whilst it also organises its own in-service training as required on pertinent policy changes (Hyde, 2013).

In terms of the supports offered to farmers, Teagasc provides cross compliance training and information using short courses, public meetings and discussion group meetings. Hyde (2013) outlines that the objectives of these supports are to:

- i. Help farmers understand the requirements and where to locate relevant information
- ii. Improve compliance and therefore reduce level of penalties
- iii. Improve industry performance in relation to the environment, animal welfare, traceability and food safety

iv. Contribute to Ireland's 'green' image

In recent times, Teagasc has expanded its cross compliance service to include a specific workbook and module. These actions were taken because the specialist advisors in charge of Teagasc's cross compliance extension service were concerned that some farmers were experiencing difficulties with fully understanding and implementing the requirements of cross compliance. These specialist advisors were also conscious that an awareness of regulations is a general prerequisite of compliance (Winter and May, 2001; Jaraitė and Kažukauskas, 2012). In an effort to improve this situation, they instigated a process to investigate the possibility of clarifying the requirements using less technical language. In particular, it was believed that a simplified document using checklists would be accessible to a greater number of farmers (McKenna, 2012; McKenna *et al.*, 2012). The initial preparatory work for the workbook was undertaken by a research student from the Teagasc sponsored MAgSc in Agricultural Innovation Support.¹⁰ McKenna (2012) outlines that his research had an action orientated objective and sought to develop an extension support for farmers which would help to educate them about their obligations under the regulations. It was believed that this support would help farmer's improve their compliance. A secondary action intention was that the workbook might aid farm advisors with their awareness of cross compliance requirements.

The principal content used for designing the draft workbook were publically available DAFM inspection forms (McKenna, 2012).¹¹ The particular checklist aspect of the workbook followed templates from farm health and safety risk assessments and the Bord Bia quality assurance schemes (McKenna, 2012). The use of checklists is popularly

¹⁰ The Masters (MAgSc) in Agricultural Innovation Support is a joint programme co-ordinated by University College Dublin and Teagasc. The programme consists of taught modules and an action research project and thesis. Local Teagasc staff are typically involved in the action research as members of an advisory group. This group guides the design of the research project and comments on initial findings. The intention of the action research element is for the generation of information of immediate relevance to the work of the local advisory and education services.

¹¹<http://www.agriculture.gov.ie/media/migration/farmingschemesandpayments/goodfarmingpracticesregulations/crosscompliance/inspectionforms/SMR1NitratesIRFPart12015061015.pdf> Last Accessed: 20th of December, 2015 14:33pm

considered to be a farmer-friendly option (Povellato and Scorzelli, 2006a; Sherlock, 2015).

Figure 7 illustrates the checklist format used in the *Cross Compliance Workbook*.

| Cross Compliance Workbook | | | |
|---|---|-------|---|
| Nitrates | | SMR 4 | |
| Self assessment | | | |
| Are gutters working and rainwater from all roofs stored separately or diverted away from dirty areas and tanks storing organic manures? | ✓ | ✗ | ? |
| Are all slurry and silage effluent tanks up to standard and not leaking? | ✓ | ✗ | ? |

Figure 7: Example of the checklists used in the *Cross Compliance Workbook*

A process of engagement was also progressed with farmers and farm advisors to ascertain their perspectives on the development of a workbook concept (McKenna, 2012). At the end of his study, McKenna (2012) submitted a draft workbook to the specialist advisors. Overall, the specialist advisors were satisfied with the layout and coverage of the draft however there were some concerns that some of the content was overly technical. To rectify this issue, the specialist advisors rechecked the draft to ensure an ease of language. They also added some pictures and diagrams. A final task was liaising with the DAFM to ensure that the information contained in the workbook was accurate.¹² Once the DAFM were satisfied with the content, the *Cross Compliance Workbook* was published on March the 15th, 2013.¹³ Subsequently, it was distributed at cross compliance training events, open days and at certain special events such as the National Ploughing Championships. Figure 8 provides an image of the front cover.

¹² Personal comment provided by a specialist advisor in April, 2013

¹³ http://www.teagasc.ie/publications/view_publication.aspx?PublicationID=1896 Last accessed: 25th March, 2016 21:27pm

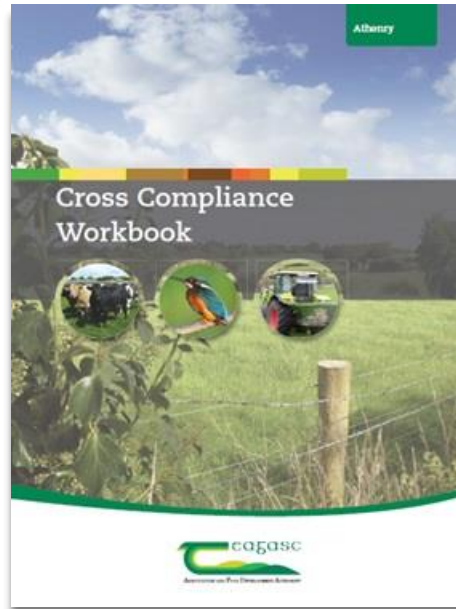


Figure 8: Front cover of the Cross Compliance Workbook

The primary distribution of the workbook was at training events associated with a purposefully designed cross compliance module. The format of this module was presented to Teagasc farm advisors at an 'in-service training' session with an intention that this training may empower advisors to 'roll out' the module across all of the Teagasc's advisory regions. This intention appears to have been successful and specific cross compliance training courses (module based and non-module based) are now regularly organised as stand-alone courses and as part of discussion group events in all of Teagasc's advisory regions. In addition, in November 2013, a special 'Cross Compliance Fortnight' was held to coincide with a traditionally quieter periods on most farms. The objective of the 'Cross Compliance Fortnight' was to highlight the availability of the workbook and training courses to all farmers at the national level. According to Hyde (2013), there has been a strong demand from farmers to attend these training course and to receive copies of the workbook. An indication of the popularity of the workbook, was the need in 2014, to apply a cost of €5 to its purchase. This fee was deemed necessary as demand for copies of the publication was greater than the initial budgetary allowance provided. This fee however only applies to workbooks distributed at open days and national events like the Ploughing Championships. It is not applicable to Teagasc clients

or to those members of the public who voluntarily attend cross compliance training courses. The *Cross Compliance Workbook* is a significant focus of the Cross Compliance Information and Training Project (CCITP) which is reported in Chapter 5.

2.6 Chapter conclusion

This chapter provided an account of the many environmental sustainability issues affecting the agriculture sector. It also contemplated the utility of the complex concept of 'sustainable agriculture' for resolving these issues. However, despite the many claims relating to 'sustainable agriculture', a considered reflection on the concept reveals diverse and possibly conflicting conceptualisations of 'sustainable agriculture'. This diversity is likely affecting the practical realisation of 'sustainable agriculture' and it is difficult to understand what exactly a practical realisation of this concept might entail. Next, this chapter discussed the range of agri-environmental policies that have been developed and applied in the EU to embed 'sustainable agriculture' in the agricultural sector. A review of the literature revealed a pronounced heterogeneity of ways in which farmers can engage with these agri-environmental policies. Moreover, it was determined that blunt generalisations about farmer engagement with agri-environmental policy are inadequate for representing the diversity of perspectives and engagement types pertaining to agri-environmental policy in the agricultural sector. In particular, this chapter gave consideration to the Theory of Cultural Capital as way of a reflecting upon farmer engagement with agri-environmental policy.

This chapter concluded with an overview of the application and enforcement of cross compliance in the Republic of Ireland. This analysis reveals that while there is a reasonable level of acceptance amongst Irish farmers about the principle of cross compliance, this acceptance does not necessarily translate to compliance with the requirements. For instance, an examination of the cross compliance inspections progressed in 2014, reveals that greater than a third of all farms inspected were noncompliant with the requirements of cross compliance. This chapter concluded with an account of the extension supports of the FAS and Teagasc cross compliance extension service. Specific attention was given to Teagasc's *Cross Compliance Workbook* which will be a key focus of the CCITP Learning Sub-system.

Chapter 3

Understanding extension practices

3.1 Chapter introduction

Chapter 3 explores agricultural extension with a specific reference to practices related to mandatory agri-environmental policy. This exploration includes a consideration of agri-environmental extension, the different 'ways of knowing' of agriculture, and the potential of participatory extension practices for taking account of the different 'ways of knowing' in the determination of enhancements to extension practices. Next, there is a consideration of participatory research for informing purposeful learning about the potential for more participatory types of extension practices. This section includes an elaboration on the concept of learning and the use of participatory forms of evaluations for organisational learning. The chapter concludes with a critique of the use of participatory approaches in extension and research.

3.2 Agri-environmental extension

3.2.1 The need for agri-environmental extension

There are limited specific definitions of agri-environmental extension in the literature. An exception is Nyberg, cited in Henriksson (2007), who defines the process of agri-environmental extension as: *'the organised exchange of information and purposive transfer of skills to farmers with the aim to reduce undesirable negative environmental impacts'* (p.3). Other functions deduced for agri-environmental extension include explicating the 'why' rationale of policy requirements (Lobley *et al.*, 2010), and ensuring that farmers are provided with opportunities to access the latest information on sustainable technologies and practices (Tilman *et al.*, 2002; Pretty, 2008). Moreover, Röling and Pretty (1997) prescribed that agri-environmental extension should make visible *'the interdependence between stakeholders and the extent to which the resource unit on*

which they depend has been destroyed by their uncoordinated action and the collective impact of their individual activities'.¹⁴

Significant barriers are however reported in the communication of the aims and objectives of agri-environmental policies (RELU, 2012; Wynne-Jones, 2013). A number of reasons for this impasse are likely. Firstly, there appears to be an inadequate information provision of the requirements of agri-environmental policy to farmers. This is an issue of considerable magnitude. As Winter and May (2001) contend: *'it is axiomatic that if regulates are not aware of the regulation, they - will not comply with that regulation. The regulation may be too new or not sufficiently publicized to gain attention of regulated entities. Even if the existence of a regulation is known, the requirements of the regulation may not be understood'* (p.679-680). A second communication issue reported by Dworak (2007) is that even if a farmer is aware of an agri-environmental obligation, they may still consider that the requirements of the policy are *'confusing and difficult to meet'* (p.2). Indeed, there is significant evidence to suggest that some farmers are finding the transition to 'sustainable agriculture' as a hazardous and stressful process (Hall and Pretty, 2008; Glover, 2015).

Agricultural extension organisations have an important role to play in ensuring that farmers are provided with adequate supports and resources to engage with advocated agri-environmental practices and policies (Berglund and Dworak, 2009; Lobley *et al.*, 2010; Cerf *et al.*, 2011; RELU, 2012; Ó hUallacháin *et al.*, 2015). This service, according to Povellato and Scorzelli (2006b), is generally performed by state-funded extension organisations. An observation which may relate to Klerkx and Jansen's (2010) assertion that agri-environmental extension services are suboptimal in privatised systems. Moreover, Juntti and Potter (2002) report that contemporary shifts towards the privatisation of agricultural extension services has led to a fragmentation and duplication

¹⁴ <http://www.fao.org/docrep/w5830e/w5830e0m.htm> Last accessed: 22nd March, 2016 18:55pm

of environmental advice at a time when it is most needed by farmers. This argument relates to their observations that the increasing complexity of policy requirements has led to increased farmer demand for agri-environmental extension services (Juntti and Potter, 2002). Such demand is not however unexpected as many policy measures were purposefully designed with an intention to stimulate farmer demand for extension (Klerkx and Jansen, 2010). Indeed, RELU (2012) reports that without appropriate extension support, many farmers would have insufficient knowledge to effectively apply the guidelines of agri-environmental policy. Conversely, RELU acknowledges that it is also unlikely that a scheme's objectives will be realised if targeted farmers determine that the objectives of a policy are not practically applicable in a field situation. To avoid such a scenario, Pannell *et al.* (2006) advocate that policy actors should extensively investigate whether a particular message or innovation is adoptable before proceeding to the provision of agri-environmental extension, as promoting inferior practices, will only lead to frustration. Furthermore, while agri-environmental policy can create a demand for agri-environmental extension, this demand will often decline once the policy measure is withdrawn (Klerkx and Jansen, 2010). Equally, Lobley *et al.* (2010) caution that while positive attitudes are often evident from farmers at agri-environmental scheme training, longitudinal evaluations are necessary to establish whether the training resulted in any enduring impacts.

The influence of the advisor in the provision of agri-environmental extension is significant and has been examined by a range of authors. For example, Juntti and Potter (2002) contend that the advisor's role is critical for *'shifting mind sets away from a productivist approach and enrolling land managers into a new paradigm of sustainable farming'* (p.218). This role is however not straight forward particularly as extension organisations face the 'top-down' versus 'bottom up' dilemmas of the intermediary (Koutsouris, 2012). Furthermore at an individual level, farm advisors are required to negotiate acceptable paths between organisational imperatives, professional allegiances and the need to gain

and maintain the trust of their clients (Juntti and Potter, 2002; Cerf *et al.*, 2011). It is also suggested that farm advisors' expertise in relation to the provision of support related to agri-environmental matters is differentiated, with recommendations known to vary within and between different sets of advisors (Vrain and Lovett, 2016). Furthermore, adapting to the new multifunctional paradigm of agriculture can be demanding for advisors as not only are they required to assimilate considerable amounts of new knowledge, but they are also expected to adjust their advice and method of delivery (McDonagh *et al.*, 2013). Indeed, according to Klerkx and Jansen (2010), many farm advisors experience difficulties when seeking to perform the facilitative role suggested as necessary for supporting farmers' to engage with sustainable agricultural practices. They allege that some advisors lack the right attitude and competencies to provide this advice and that some may even be incapable of facilitating learning about more sustainable agricultural practices. Indeed, they report that even when an advisor possesses the right competencies, they may be too concerned about losing credibility with their clients, to suggest or provide advice that it is not explicitly requested by the client. Furthermore, they report that many advisors will avoid providing information and advice about more sustainable types of agriculture practices if they consider that it will not necessarily be appreciated by their farming clients, particularly their more productivist-focused clients. Moreover, it is highlighted that advisors often lack the ability to exercise autonomous judgement when providing policy advice to farmers (Juntti and Potter, 2002). Conversely, the introduction of targeted measures in agri-environmental schemes is reported to be placing additional demands on advisors to make recommendations about which agri-environmental measures a farmer should target (Vrain and Lovett, 2016).

In the next Sub-section 3.2.2, an examination of the extension practices related to mandatory types of agri-environmental policy is given.

3.2.2 Extension practices related to mandatory agri-environmental policy

There is an increasing onus on extension organisations to promote the concept of sustainable agriculture to farming clients. This process is however not politically benign (Röling and Wagemakers, 2000). The process is also further complicated when organisations are required to advocate requirements associated with mandatory agri-environmental policy. In this thesis, the extension of cross compliance policy is suggested to be what Röling (1990b) might describe as a 'made fit' approach to extension, in that '*it is in the clients' interest to follow extension advice*' (p.51).

Arguably, the top-down logic associated with mandatory agri-environmental policy is a return to authoritarian paradigms of the past and their tendency, as highlighted by Paulo Freire (1985), to underestimate '*peasant creativity and regenerative capacity, disregarding their knowledge at whatever level, trying to "fill" them with what technicians believe is right*' (p.31). It also appears contrary to the growing desire to provide more meaningful ways of communicating sustainable agriculture information (Cerf *et al.*, 2000; Röling and Wagemakers, 2000; Piercy *et al.*, 2011). Moreover, it is well noted that top-down approaches to agri-environmental extension are not having the desired effect of translating sustainable agricultural practices into reality (Ison, 1990; Pretty, 1995; Vanclay, 1997a; Van den Ban, 1999; Röling and Wagemakers, 2000; Vanclay, 2004; Allahyari, 2009; Koutsouris, 2012; EIP-AGRI-Focus-Group, 2015). While, Pannell *et al.* (2006) suggest that the non-adoption or low adoption of sustainable agriculture practices may be explicable in terms of their failure to provide a comparative advantage particularly in economic terms, whilst it may also, they suggest, relate to the limited ability of farmers to determine the suitability of technology through trial use.

Related to these observations is the growing acknowledgement that problem-focussed processes such as the implementation of sustainable agriculture need to be sufficiently pluralistic to respect the different world views of those involved (Bawden, 1991; Raymond

et al., 2010). Advocated sustainable technologies and practices should therefore be considered systemically to take account of the range of factors that may affect their implementation. According to Wauters and Mathijs (2013) and Vanclay (2004), farmers will consider advocated measures and technologies in terms of all their economic, environmental, technical qualities and not just on their conservation merit. For this reason, Vanclay (2004) disapproves of an increasing tendency to differentiate extension efforts between environmental issues and production issues. He argues that such a dichotomy is meaningless to farmers who must take account of these issues collectively.

Specifically, in relation to cross compliance, there are reports that increasing farmer engagement with cross compliance extension services such as the FAS may improve farmer awareness of legislation and potentially increase farmer compliance with the policy (EC, 2010; Swedish-Board-of-Agriculture, 2011). However, it is also noted that at present the overall effectiveness of the FAS is limited as few farmers utilise its service (EC, 2010). Moreover, there are claims that the FAS provides inadequate advice to farmers about their obligations to conserve biodiversity (Boccaccio *et al.*, 2009).

It is however acknowledged that there is significant scope to improve the effectiveness of cross compliance extension services, particularly in relation to the clarification of the rationale of the various SMR and GAEC standards (DEFRA, 2009). Other recommendations for the service include that the FAS better differentiates between tailored farmer advice and the provision of generic information (Bennett *et al.*, 2006), ensuring that FAS advisors are suitably qualified and trained (EC, 2010), and increasing synergies and knowledge exchanges between the different actors in the FAS (Bennett *et al.*, 2006; EC, 2010). There are also suggestions that it may be more rational from an economic perspective to strengthen training and advisory support as a policy approach to achieve the objectives of cross compliance (Meyer *et al.*, 2014).

In conclusion, it is evident that there is considerable complexity in the relationship between environmental policy and extension practice. In this research to understand this complexity, there is a specific focus on exploring how more participatory forms of extension practice may enable improvements to the current extension efforts pertaining to mandatory types of agri-environmental policy. This required first understanding the different ways of knowing and extending relevant agricultural knowledge. This subject is considered in the next three sub-sections.

3.3 Understanding the practice of agricultural extension

3.3.1 Knowing agriculture

The creation and circulation of agriculture knowledge is pursued by divergent stakeholders with diverse epistemologies (Morris *et al.*, 1995; Cleveland and Soleri, 2007; Prager and McKee, 2015). Blackmore (2007) relates that knowledge '*as in 'a body of knowledge' can be synonymous with information or understanding. It can also refer to a state of knowing but there are different ways of knowing with different degrees of rationality ranging from scientific and philosophical to more intuitive and innate*' (p.513). Three particular ways of 'knowing' agriculture are considered in this thesis: experiential and local; scientific; and hybrid.

- i. Experiential and local ways of knowing:** These are generally of a particularistic nature and orientated to a specific place and context (Tovey, 2008). Local knowledge is suggested to be in a constant state of production and reproduction (Kloppenburg, 1991). It is considered that appreciating local and tacit (Polanyi, 1967) ways of knowing are essential attributes of a knowledge system seeking to realise sustainable agriculture objectives (Curry and Kirwan, 2014).
- ii. Scientific ways of knowing:** This is a way to describe more explicit forms of knowledge. Scientific knowledge is created by the formal application of scientific

methods to a field of interest. The intention is to produce knowledge with a generalizable application (Raymond *et al.*, 2010).

iii. Hybrid ways of knowing: New understandings, which combine local and scientific ways of knowing. Hybrid knowledge can occur when local and scientific ways of knowing are integrated using multi, inter, or trans-disciplinary research approaches (Raymond *et al.*, 2010). Farmers are reported to draw on a range of scientific understandings when making local management decisions (Morris, 2006). Practitioners may also generate 'new' types of knowledge from their practice and experimentation with technologies (Proctor *et al.*, 2011; Oreszczyn and Lane, 2012).

Policy actors are reported to have traditionally favoured scientific and expert ways of knowing the interrelations between agriculture and the rural environment (Kloppenburg, 1991; Cleveland and Soleri, 2007; Tovey, 2008). At the same time, rural dwellers are also known to sometimes display a disdain towards 'experts' and their 'placeless' knowledge (Wynne, 1989; Wynne, 1992; Moran and Rau, 2014). However, according to Visser *et al.* (2007), the presumed opposing suppositions between local and scientific ways of knowing are more often a result of a mutual ignorance of each other's perceptions, than any significant disagreements in principle.

A concept that can be used to understand the different ways of knowing agriculture is the Agricultural Knowledge and Innovation System (AKIS). This conceptual construct is used to describe known and potential knowledge flows in the agricultural sector. The AKIS concept is considered to be influenced by the soft systems approach, with no fixed boundaries or actors formalised *a priori* (Röling, 2007). The AKIS is also described as multi-faceted, with sub-systems existing within the main system (Vuylsteke and Van Gijsegem, 2012). Varied perceptions of the AKIS are available. Certain advocates argue the AKIS can be used to support decision making, problem solving and innovation (Röling, 1990a; Boyle, 2012; SCAR, 2012), while others suggest the model relies too heavily on

explicit forms of knowledge and that it needs to be reconceptualised in a format better capable of embracing the social, cultural and environmental aspects of agriculture (Curry and Kirwan 2014).

This logic reflects a growing appreciation of the different ways of knowing. It is also reported that an improved knowledge mediation culture is arising from more frequent interrelations between farmers and policy actors, the increasing use of hybrid ways of knowing and the growing affordances between the different ways of knowing and improved understandings of the inter-relations between agriculture and the rural environment (Morris, 2006; Riley, 2016). An illustration of a knowledge culture adaption from Morris (2006), is the introduction of derogations to agri-environmental schemes¹⁵. She suggests that the willingness of policy actors to implement these derogations at the governance level demonstrates that accommodations between local ways of knowing and policy knowledge cultures are possible.

Further examples of knowledge accommodations are the Learning and Innovation Networks for Sustainable Agriculture (LINSAs). This concept was developed as a means to support farmers transitioning from 'productivist regimes' to regimes built around the principles of sustainable production (Brunori *et al.*, 2013). LINSAs are also argued to have created spaces for interaction between actors, which is believed to help facilitate stakeholder exposure to new information and frames of logic (Brunori *et al.*, 2013). LINSAs networks were partly used as a scoping mechanism for the recently formulated European Innovation Partnerships (EIP-AGRI). Teagasc (2013) notes that in the future EIPs may be key to bringing research closer to practice via knowledge exchange and networking. Similarly Kelly *et al.* (2013) highlight the potential of EIPs to serve as a *'lean and highly effective consortium that steers the development path for as many farmers as possible'* (p.18).

¹⁵ Derogations are an exemption from or relaxation of a particular rule or law

Conversely, Vanclay (2004) advises against romanticising or overstating the local knowledge of farmers. He reports that it would be unwise to perceive that local knowledge by itself will solve all of the problems associated with the agricultural sector. Moreover, there is a need to consider that the perceptions of individual stakeholders' are a particular construction of reality built on their interpretation of their own experiences (Webber and Ison 1995). Equally, the post-structuralist paradigm cautions against accepting 'authentic' stakeholder understandings, as it is argued that within communities, there will always be multiple and conflicting knowledge accounts, which need to be adjudicated (Cameron and Gibson, 2005). Similar, Riley and Harvey (2007) advise that when seeking to include farmers' narratives in policy discourses that their narratives should not be presented '*as being in 'some way 'truer' than understandings from science*' (p.32). Rather, he suggests that farmers' narratives should be viewed as providing alternative, humanised, and populated narratives of the countryside and its management.

3.3.2 Agricultural extension in transition

The traditional goals of agricultural extension are reported to have been solely focussed on transferring the technical innovations and knowledge created by scientific research to farmers (Busch and Lacy, 1983; Morris *et al.*, 1995; Cash, 2001). This type of extension focus is commonly referred to as the transfer of technology model. It was most usually progressed using Rogers's (1962) Theory of the Diffusion of Innovations.

The application of the transfer of technology approach assumed that knowledge created through scientific research could be successfully transferred to intended recipients through the extension process (Russell and Ison, 2000). Success in the use of this model was primarily measured in terms of the adoption rates of technologies by farmers and through attributable production increases (Axinn, 1988). The model dominated advisory support for many years, however there has been a decline in its exclusive use within extension organisations, with a growing advocacy of more participatory modes of

extension which recognise the role of farmers as collaborators in the design and application of research (Ison, 1990; Morris *et al.*, 1995; Webber and Ison, 1995; Röling and Wagemakers, 1998b; Cerf *et al.*, 2000; Ison and Russell, 2000; Leeuwis and Ban, 2004; Ison and Russell, 2007; Klerkx and Leeuwis, 2009).

This shift relates to an improved appreciation that top-down models of extension, in which researchers work independently of farmers and advisors, had a tendency to develop research findings with only limited understandings of farmers and the opportunities and constraints they face (Chambers and Ghildyal, 1985; Chambers and Jiggins, 1987; Biggs, 1989; Chambers *et al.*, 1989; Hagmann *et al.*, 1998b). Furthermore, there is a growing willingness to accept, by at least some researchers that the non-adoption of an advocated technology or practice may indicate the unsuitability of the technology for a particular farm or farmer (Chambers and Ghildyal, 1985; Chambers and Jiggins, 1987; Biggs, 1989; Chambers, 1997; Hagmann *et al.*, 1998a; Brodt *et al.*, 2006; Darnhofer *et al.*, 2012). Hagmann *et al.* (1998b) relate that improved understandings of the relationships between farmers and technology has enabled both governmental and non-governmental organisations to transition towards the use of participatory approaches which actively seek to work with communities in the process of identifying and realising agrarian development goals.

In agricultural extension, this shift also reflects a growing appreciation that agricultural science is more complex than simply knowing 'things' objectively through a research process (Röling and Wagemakers, 2000). It must also, as scholars report, take account of the heterogeneity of farmers and their different types of knowledge and competencies (Vanclay, 1997a; Mathieu, 2004). Furthermore, there is growing acknowledgment of farmers as adaptive and naturally reflective practitioners who are capable of making their own decisions regarding the suitability of proffered scientific technologies or practices (Vanclay, 2004; Oreszczyn and Lane, 2006; Curry *et al.*, 2012; Lane and Oreszczyn,

2013). On farm developments, in this sense are more now progressively recognised as a farmer's response to opportunities and threats (Röling and Wagemakers, 1998a; Garforth *et al.*, 2003; Teece, 2007; Darnhofer *et al.*, 2008; Stock and Forney, 2014).

This changing conceptualisation of extension practice has created more complex extension organisations, which in addition to facilitating change, must now take account of intentionality, culture, power, technology development, institutions, politics and epistemology (Busch and Lacy, 1983; Röling and Wagemakers, 2000; Garforth *et al.*, 2003; Ward *et al.*, 2009; Hunt *et al.*, 2011). Moreover, the situation is further changed in that many organisations have moved from direct public provision of extension, to a relationship that charges farmers for advisory services (Garforth *et al.*, 2003). This financial correlation is reported to have increased farmers' expectations for the extension services they pay towards (Haug, 1999; Klerkx and Proctor, 2013).

Conversely, while limitations with traditional extension approaches are recorded, it should be noted that farmers are reported on balance, to prefer to have an advisory service available, particularly for the appropriation of one-to-one advice (Vanclay, 1997a). Moreover, a traditional close relationship between farmers and their advisors is acknowledged by a range of scholars (Hall and Pretty, 2008; Macken-Walsh *et al.*, 2012). Hall and Pretty (2008) contend that advisor - farmer relationships are often characterised by a mutual trust and respect which has developed from close personal contact over a lengthy period of time. It is also noted that advisory engagement is more likely to be effective when encounters between farmers and advisors are underpinned by trust, credibility, empathy and consultation (Carolan, 2006; Sligo and Massey, 2007; Ingram, 2008; Sutherland *et al.*, 2013). Furthermore, it should be recognised that many of the critiques of traditional extension practice are often made from either an academic or farming perspective. The advisors' voice in the literature is limited. An exception is Peters (2006), who critiques the failure of the wider literature to take account of the wide range of activities undertaken by extension personnel. He reports; '*extension matters and is*

significant not only or mainly because it has information and expertise, but rather because of how and for what purposes it brings people, information, and expertise together' (p.32). He reports that in his experience as an advisor that the operationalization of extension is and has always been '*much more than providing information'* (p.32).

In the next Sub-section 3.3.3, a consideration of participatory types of extension practices and their potential for enabling more satisfying extension efforts between stakeholders and their different ways of knowing agriculture is provided.

3.3.3 Participatory extension practices

Participatory extension practices seek to facilitate the bringing together of scientific and local knowledge in ways which may enable new hybrid ways of knowing. Murray (2000) reports that there is a diversity of ways to undertake more participatory types of extension. A common conceptualisation of a participatory practice is that of an extension approach which is flexible, bottom-up and decentralised. Participatory extension practices are also normally facilitatory in nature and focused on empowering the participants involved (Chambers, 1994; Chambers, 1997; Murray, 2000). Participatory extension practices will also purposefully seek to involve farmers as equal partners in the generation and testing of new ideas, technologies and practices (Hagmann *et al.*, 1998b; McDonagh *et al.*, 2013).

Participatory extension practices have particular significance for the advocacy of more sustainable forms of agriculture. Klerkx and Jansen (2010), for instance, report that the realisation of sustainable agriculture require advisors, farmers and other stakeholders engaging in processes of joint experiential learning, in which all participants are provided equal opportunities to contribute knowledge. A particular mode of participatory extension practice is the use of group approaches. This mode is considered to allow farmers to take ownership of the learning process and to interrogate new ideas using a shared way of knowing (Macken-Walsh and Roche, 2012). Furthermore, participatory extension

approaches are claimed as providing interactive and socio-culturally sensitive ways to work with farmers on issues of importance (Macken-Walsh and Roche, 2012). Similarly, Ingram (2008) suggests that enhanced knowledge exchange between relevant stakeholders may help improve farmer engagement with agri-environmental policies. Lankester (2013) outlines that organised collective learning between extension stakeholders can facilitate critical reflection on sustainable agricultural practices, while it can also promote the questioning of self, others and cultural norms, potentially leading to an enhanced sense of environmental responsibility among farmers. This reflects the notion of transformation learning as described by Synnott (2013), which considers that learning is a process whereby people gradually change their views on the world and themselves in response to external triggers.

Participatory extension approaches also require that extension organisations reflect on their own progress in serving their clients. This operationalization in practice can however be challenging for extension organisations, particularly if the reflection process reveals a need for substantial changes to the culture, roles, responsibilities and attitudes of the organisation (Hagmann *et al.*, 1998a). It may also not be feasible for extension organisations to quickly transform the ways in which they function. For example, McDonagh *et al.* (2013) highlight that extension organisations will be required to take account of the broader policy environment, issues in knowledge generation interactions, as well as addressing challenges in attributing impact from their actions. Moreover, as Kelly *et al.* (2013) report the development role attributed to extension is a long term interaction which is often not overtly transparent in terms of its outcomes.

The sustainable operationalization of participatory extension approaches must also be considered. According to Hagmann *et al.* (1998a) it is rarely sufficient to simply create structures for participatory extension as there will also be a need to consider the support, commitment, and resources needed to operationalize such extension approaches in the longer term. Importantly, there is also need to take account of the many tasks that

advisors and other extension personnel presently perform as part of their extension remit and duty of care to their clients. Such tasks include for example supporting farmer clients with grant applications (Feder *et al.*, 2001). In this sense, the advocacy of participatory extension practices needs to be pragmatic and mindful of the opportunities and constraints facing extension organisations and their advisors.

3.4 Participatory research interventions to inform extension practices

3.4.1 Introducing the concept of participatory research

The importance of incorporating farmers' ways of knowing into research about farmers is well established (Röling and Pretty, 1997; Ison and Russell, 2000; McClintock *et al.*, 2003; Pelling *et al.*, 2008; Brown *et al.*, 2015). It is also argued by Prager and McKee (2015) that knowledge co-production between different actors in the agricultural sector has the potential to generate '*more socially robust knowledge*' and potentially enable better decisions. Furthermore, it is considered that knowledge is more likely to be valid when grounded in experience (Reason, 2001; Brydon-Miller *et al.*, 2003). The co-production of knowledge can however create tensions particularly when differences in perspectives are revealed (Prager and McKee, 2015). For example, Bruce (2013) reveals mismatches between policy/scientific constructions and farmer constructions of the technological approaches that have been developed to mitigate methane emissions in livestock production. The revealing of diversity is however part of the learning process and Rayner (2012) cautions against suppressing diverging perspective or the revealing of '*uncomfortable knowledge*', especially when dealing with '*wicked*' or messy problems, as it is often uncomfortable knowledge which will prove decisive for understanding how to address identified '*issues*'.

The particular role of the researcher in participatory extension approaches is described by Hagmann *et al.* (1998b) to include supporting farmers and advisors in joint experimentation and learning processes, and where appropriate the contribution of

knowledge related to technical options that may offer solutions to the problems identified by farmers. This approach can be contrasted with previous top-down approaches, in which researchers more often shared 'scientific' knowledge with farmers without paying due account to the farmer's local knowledge of the problematic situation (Vanclay, 1997b; Mathieu, 2004; Vanclay, 2004). In particular, Mathieu (2004) advocates that the farmers' forms of knowledge is often more pertinent than scientific knowledge to solve the issue under observation.

3.4.2 The theory of participatory research

The practice of participatory research is reasonably widespread (Fals-Borda, 1987; Greenwood and Levin, 1998; Brydon-Miller *et al.*, 2003). The approach is increasingly used to devise improvements within agricultural systems (Carberry *et al.*, 2002; Coldevin, 2003; Dart, 2005) whilst, it is also claimed as a means for scientists to collaborate effectively with those at the '*sharp end of environmental issues*' (Curry and Kirwan, 2014; Reed *et al.*, 2014; Whitman *et al.*, 2015). Participatory research approaches are suggested to improve the effectiveness of establishing common research goals and expectations, and can also build trusting and respectful relations between stakeholders, a process which in turn may lead to the co-creation of new knowledge (Reed *et al.*, 2014). Their use is also reported to improve the likelihood that research activities and outcomes will be better aligned with participants' expectations (Carberry *et al.*, 2002). Participatory research is suggested to have an ability to improve the contextual awareness of researchers, which enhances the likelihood that knowledge created through the research process will be relevant for the 'real world' conditions (Murray and Butler, 1994).

Many approaches to participatory research are available including Participatory Appraisal, Rapid Rural Appraisal, Participatory Learning and Action, Co-operative Inquiry and Participatory Action Research (Cornwall and Jewkes, 1995; Pain and Francis, 2003; Heron and Reason, 2006; Walter, 2006; Kindon *et al.*, 2007). There are however mixed

perceptions about the usefulness of participatory research approaches (Neef and Neubert, 2011). A summary of the commonly claimed attributes of participatory research approaches (Cornwall and Jewkes, 1995; Berg, 2004; Kemmis and McTaggart, 2005) are provided in Table 2:

Table 2: Claimed attributes of participatory research

-
- Shared ownership of research projects
 - An orientation towards community action
 - The democratization of knowledge production and use
 - Local knowledge as the basis of research and planning
 - Community-based analysis of social problems
 - An appreciation and belief that humans can reflect, learn and change
-

However, while some scholars suggest participatory research approaches to be a panacea for all the problems of conventional research, others judge these approaches to be biased, impressionistic and unreliable (Cornwall and Jewkes, 1995; Bruges and Smith, 2009). Furthermore, 'participation' is a rich concept and can mean different things to different people in different settings (Hayward *et al.*, 2004).

Differences between participatory research approaches are usually characterised by the degree of participant engagement within and beyond the research encounter (Cornwall and Jewkes, 1995; Pain and Francis, 2003). Participant typologies can provide understanding regarding the level and types of engagement in a research intervention (Keen *et al.*, 2005). A commonly cited typology is Arnstein's (1969) 'Ladder of Citizen Participation' which portrays a continuum of engagement in civic governance. The typology is however criticised for its conceptualisation of participation as power. This type of conceptualisation is suggested to constrain discourses around environmental issues which are usually more often characterised by complexity, uncertainty and multiple stakeholding (Collins and Ison, 2009). A more recent typology by Neef and Neubert

(2011) seeks to blend different types and intensities of participation within agricultural research in an effort to move beyond simple 'farmer-first' ideologies and the naive advocacy of participation for the sake of participation.

It may be argued that these more complex conceptualisations of participation reflect growing appreciation of the rationality of nonparticipation (Pain and Francis, 2003; Hayward *et al.*, 2004; Collins and Ison, 2009). As Hayward *et al.* (2004) highlight, nonparticipation can serve as an act of empowerment. Mohan (1999) in particular, advises that researchers should be aware that often those perceived as powerless by academic researchers are not powerless. At the same time, Prager and McKee (2015) caution against ascribing, a lack of interest or issues of attitude, as reasons for non-participation, as they report that there will be instances where potential participants lack the necessary resources to engage in the research process.

Two particular utility constructs of participatory research have evolved. The first relates to emancipatory aspirations of empowering participants, the second to understandings of participatory research approaches as having an ability to improve the efficiency of the research process (Pretty, 1995). Participatory research with an emancipatory emphasis seeks to investigate reality with an intention to change it (Freire, 1972; Freire, 1985; Fals-Borda, 2006) and the research process is considered as a means to awaken participants to the value of their own knowledge (Freire, 1972; Reason, 2001; Reason and Bradbury, 2001). The second utility value of participatory approaches relates to the growing emphasis of participation in academic and policy discourses (Collins and Ison, 2009; Whitman *et al.*, 2015). Participatory research in particular is increasingly being practised in relation to policy goals situated in complex, uncertain and contested environments, where conventional research methods have been ineffective (Bruges and Smith, 2008).

The universal use of participatory research approaches is however problematized by some scholars. Pain and Francis (2003) relate that participatory approaches did not originate as

a methodology for research, rather their intention was to initiate processes for communities to work towards change. It is also reported that the emancipatory ethos of participatory research requires that the research process is guided by the aspirations of the participants and not by the predetermined goals of researchers or policy actors who are seeking to find better ways of implementing government policies (Bruges and Smith, 2008). Moreover, it is suggested that there is potential for friction with using participatory research approaches to enhance the effectiveness of extension in advocating policy objectives (Röling, 1990b; Murray, 2000). However, Röling (1990b), contends that if an empowering element is present for the participants in such research agendas, the potential for conflict may be somewhat mediated. Conversely, Bruges and Smith (2008) report that there is an *'inherent creative tension'* in using participatory research to advance public policy goals such as 'sustainable agriculture'. The authors outline that *'participatory approaches were not developed to promote sustainable agriculture or indeed any other policy objective; they were developed to empower communities to effect positive change'* (p.21). Whitman *et al.* (2015) also argue that the rhetoric and practice of participation is often shallow and limited to the simple inclusion of relevant publics or stakeholders, or building trust in science or policy making. They further suggest that any 'participatory' approach in pre-determined scientific research is usually limited in its ability to succeed.

3.4.3 Participation and the potential for learning in extension organisations

In line with the shift towards more participatory approaches to extension, Röling and de Jong (1998) relate an increasing focus within extension organisations with the concept of learning. Previously, traditional agricultural extension organisations were criticised for failing to adequately reflect on their extension activities and what they could have learned from a reflection of their activities (Murray, 2000; Carberry *et al.*, 2002; Torock, 2009). Conversely, it is also reported that participatory extension processes can often claim success but rarely systematically describe or make transparent the successes they claim

(Hagmann *et al.*, 1999). Evaluating participatory extension interventions is therefore important to determine the potential efficacy, efficiency and effectiveness of extension actions and activities. Presently, the capacity for evaluating participatory processes appears limited with according to Murray (2000), only a few tools available for this purpose. Notable exceptions include participatory performance reporting techniques (Dart, 1999; Dart and Davies, 2003) and story-telling evaluations (Vanclay, 2013). A further approach is purposeful reflection on the types of learning arising during and from the extension process (Lankester, 2013; Triste *et al.*, 2014). Social learning, for example, is frequently reported as a desirable outcome of participatory interventions (Salner, 1999; Ison, 2005; Muro and Jeffrey, 2008).

The concept of social learning is advocated to have particular capabilities towards improving the management of human and environmental inter-relations (Ison *et al.*, 2004; Ison, 2005; Keen *et al.*, 2005; Blackmore *et al.*, 2007). It is also frequently cited as a construct for understanding interactions between current practices of agriculture and the efforts to pursue more environmentally sustainable forms (Cerf *et al.*, 2000; Ison and Russell, 2000; Krasny and Lee, 2002; Triste *et al.*, 2014). However, there is considerable debate about the meaning and theoretical basis of social learning (Reed *et al.*, 2010). Using a broad definition, Blackmore (2007), describes social learning, as a range of ideas about 'what' and 'how' social interactions can contribute to individual learning and/or collective learning. Reed *et al.* (2010) suggest that social learning is '*a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks*'. At the more specific environmental level, Keen et al. (2005) describes social learning as '*the collective action and reflection that occurs among different individuals and groups, as they work to improve the management of human and environmental interrelations*' (p.4). While, Collins *et al.* (2009a) report that social learning is a process of concerted action amongst stakeholders to learn how situations of concern are socially

constructed, with an intention to enable practice and understanding change, that may transform the situation of concern.

There are however reports of many unsubstantiated claims of the occurrence of social learning, with frequent confusion between the concept itself and its potential outcomes. (Muro and Jeffrey, 2008; Reed *et al.*, 2010). Reed *et al.* (2010) advise researchers that prior to making social learning claims, that they should evaluate their research intervention for:

- i. a demonstration that a change in understanding has occurred between the individuals involved
- ii. a demonstration that the change goes beyond the individual and has become situated in the wider social units or communities of practice
- iii. a demonstration that the process has as occurred as a result of the social interactions between actors within a particular social network (Reed *et al.*, 2010)

Multi-loop learning is used in this research to evaluate the learning arising from research processes. The emergence of this multi-loop learning concept is traceable to the works of Chris Argyris and Donald Schön (c.f. (Argyris and Schön, 1974; Argyris and Schön, 1978; Argyris and Schön, 1996). A particular contention of this academic partnership was a belief in the ability of human reasoning as a basis for diagnosis and action in problematic situations (Smith, 2001, 2013). In particular, Argyris and Schon (1978) contend that for meaningful changes to be realised to a system requires questioning the goals, values, plans and rules of that system (double-loop learning) and not just whether current activities are realising the objectives of the system (single-loop learning). They suggest that double-loop learning can lead to the modification of an organisation's underlying norms, policies and objectives (Argyris and Schön, 1978). An additional process that can be operationalized in multiple-loop learning is triple-loop learning (Flood and Romm, 1996; Flood, 1998). Triple-loop learning, according to Reynolds (2014) is concerned with

understanding the power relations that might determine what is considered as 'the right thing'. Triple-loop learning may however be difficult for the researcher to undertake, particularly in instances where the problematic situation has a personal quality or is related to the organisation where the researcher works (Coghlan and Brannick, 2014; Traeger, 2016).

Moreover, Salner (1999) reports that certain attributes need to be in place in an organisation before learning can occur. She suggests that learning organisations requires team players who value participation and collaboration in decision-making more than '*rugged individualism*', secondly there is a need for role flexibility and continuous generative learning' in the day-to-day activities of the organisation seeking to learn. Finally, she argues an organisation must be willing to acknowledge and be capable of understanding the complexity of variables and contextual perspective relevant to organisational issues. Such issues were raised previously by Argyris (1991) who noted that for learning to shift from 'single-loop' learning to 'double-loop' learning requires that the learner understands that they should not feel embarrassed or threatened by the learning processes as the surfacing of these types of reactions can lead to defensive reasoning rather than productive reasoning. However, he acknowledges that often decisions to change in an organisation must come from the top, as '*otherwise defensive senior managers are likely to disown any transformation in reasoning patterns coming from below. If middle managers begin to change the way they reason and act, such changes are likely to appear strange – if not actually dangerous – to those at the top*' (p.11). Further complexity is also added by Shaw (1997) who reports that often '*within organisations there are shadow systems*' composed of a complex web of interactions in which social, covert political and psycho-dynamic systems coexist in tension with the legitimate (p.249). The prudent researcher should therefore seek to find out about the potential for such a situation in the context they are involved in order to potentially pre-empt and if possible mediate against the potential for learning blockages.

3.4.4 Critiquing the use of participatory approaches

Significant positive attributes are linked to participatory approaches such as participatory research and participatory extension. However, as Rahnema (1990) has highlighted, it serves no one to make a fetish out of participation. Moreover, surfacing the limitations associated with participatory approaches is necessary to avoid practitioners feeling 'let down' when the many claims of participation are not realised in practice (Reed, 2008). Critiques of participatory approaches may indeed help with developing more realistic and effective methodologies in the long term (Bruges and Smith, 2008). Therefore, in the following section, to avoid overstating the merits of participatory approaches, some of the limitations noted by scholars in relation to practice of participatory approaches are highlighted and discussed.

Firstly, a central precept of participatory research is the sharing of 'power' between researchers and research participants (Baum *et al.*, 2006). It is however noted that many conventional researchers are wary of including stakeholders in the research processes due to concerns that the research and associated outcomes will become politicised (Hage *et al.*, 2010). It is also reported that the broader political framework may impact or hinder the potential for change from research interventions (Pain and Francis, 2003). This is more likely to occur if the legitimacy and quality of decision-making processes are affected by conditions of uncertainty and/or overshadowed by political 'power-play' (Hage *et al.*, 2010). In addition, implementing change in the context of large public institutions can be difficult, as institutional constraints will likely apply (Cameron and Gibson, 2005; Pelling *et al.*, 2008; Coghlan and Brannick, 2014). Powerful stakeholder groups may also seek to co-opt the research process (Soma and Vatn, 2014); while undertaking action orientated research within your own organisation may not be appreciated by colleagues, particularly if sensitive issues are revealed and brought to the attention of a wider audience (Coghlan and Brannick, 2014; Traeger, 2016).

Reflecting on power relations prior to the research commencement may help pre-empt potential conflicts (Zuber-Skerritt and Perry, 2002; Ballard and Belsky, 2010; Smith *et al.*, 2010). In particular, it is noted that undertaking the novel approach of Participatory Action Research in societies with a centralised hegemonic structure is challenging (Kamali, 2007). Furthermore participatory governance mechanisms may not be legally recognised in some countries (Catalán, 2015). From a pragmatic perspective, therefore, it is advisable that bottom-up, participatory approaches are complemented with strong top-down commitment from governing agencies and bodies (Haug, 1999; Klerkx and Leeuwis, 2009). It is also important to recognise that some organisational leaders are more willing to take risks in allowing participatory processes to develop than others (Greenwood *et al.*, 1993).

Equally important to these considerations of power is the need to factor and account for organisational costs (i.e. staff time and funding) of participatory plans and programmes (Klerkx and Leeuwis, 2009). Although, some scholars would argue that little extra cost is associated with participatory extension approaches (Hagmann *et al.*, 1998), this determination neglects the costs involved in implementing any desired changes sought by participants. Such costs according to Fleischer *et al.* (2002) can vary from base costs, start-up costs, recurrent costs as well as costs to the farmer. Moreover, Mancini and Jiggins (2008) note in their evaluation of the efficacy of Farmer Field Schools in India, that considerable resources were spent conducting the evaluation in the first instance. Additionally, the cost of participant preferences may be queried when integrating farmers' preferences into technical investigations or these preferences may be marginalised at later stages to suit researchers' and policy-makers preferences (Vanclay, 1997a; Klerkx and Leeuwis, 2009).

Participatory research will also not always meet its objectives or the research inquiry may suffer a gap between rhetoric and practice (Koutsouris, 2008). Moreover, participatory researchers, particularly 'outsiders' to the research context are advised to be aware of the

'outsider' tendency to dictate the terms of a participatory intervention (Mohan, 1999). This type of participatory dilution according to Silver and Campbell (2005) can lead to 'disenfranchisement' and strained relations developing between participants and government/researchers. It may also, they suggest lead to situations where participants *'increasingly refuse opportunities to participate, provide falsified information, and/or defy enforcement or new policy'* (p.728). It is further recommended by Mohan (1999) that academic researchers learn that their practice and traditions as academics are not beyond reproof. Furthermore, he advises that where criticisms of academic/scientific research are surfaced in participatory research approaches, that the researcher is aware that participant critiques might cause struggles not only in the academies but also in the organisations where the research is situated. In a similar vein, participatory interventions are reported to have significant potential to surface ethical dilemmas (Kamali, 2007).

A provoking critique from Rahnema (1990) suggests that human nature ensures the problematic character of participatory approaches. In particular, he questions whether *'participation, or any superficial, outwardly organized form of relationship or cooperation, can change in any serious way, a society of persons who, for their own, sometimes understandable, reasons, remain violent, fearful, greedy and indifferent to each other?'* (p.222). This observation may relate to the defensive routines highlighted by Argyris and Schön (1989), in which they note that it is not uncommon for organisations to employ strategies which will purposefully seek to prevent their organisation experiencing any embarrassment or threat. Indeed, organisations may even try to prevent investigations taking place which could cause or lead to these reactions. However, Argyris and Schön (1989) relate that *'defensive routines, at any level, are antilearning'* (p.621). Furthermore, it is noted that while planned interventions may open up a research space for the negotiation and initiative for some groups, this space may simultaneously block the interests, ambitions and political agency of others (Long, 2004)

Finally, participatory research approaches have a reputation for being 'messy' in nature and time-consuming in duration (Chatterton, 2010; Torre *et al.*, 2012). This is an issue in the 'product-driven' academy where the strong emphasis to 'publish or perish' remains (Mohan, 1999; Carberry, 2001; Bodorkós and Pataki, 2009).

3.5 Chapter conclusion

This chapter began with an overview of the concept of agri-environmental extension. This is a type of extension concerned with improving the environmental performance of farmers and their farms. Specific attention was given to a discussion of extension practices related to mandatory agri-environmental policy. This consideration revealed that despite wider transitions away from top-down extension approaches, many extension practices related to mandatory agri-environmental policy remain fixed to top-down approaches. Furthermore, limitations with the specific use of agri-environmental extension were revealed due to a reality in which farmers have to consider the environmental aspects of a policy or practice in tandem with the range of social, economic and technical issues affecting their farm management. Taking these considerations into account, it seems logical to advocate the potential of participatory extension approaches as a way to ensure that farmer concerns are included in the development of policies and practices which seek to realise 'sustainable agriculture'. Following a review of the practicalities of participatory extension approaches, there was an examination of the related concept of participatory research as way of informing more farmer-focussed approaches for enhancing extension practices. This chapter concluded with an overview of the limitations evident with the use of participatory approaches in research and extension. It is considered that acknowledging these limitations is necessary for the development of pragmatic infrastructure for informing enhanced extension practices related to mandatory agri-environmental policy.

Chapter 4

Methodological framework

4.1 Chapter introduction

This chapter details the methodological framework that was used to progress this research. It begins with the declaration of a research paradigm before moving to discuss the PhD researcher's understanding and application of a learning process approach. This account includes an overview of the multiple steps taken to pursue the Cross Compliance Information and Training Project (CCITP). It also includes the logic and application of the narrative inquiry process. Finally, it provides an overview of the reasoning and processes behind the multi-loop learning approach which was subsequently taken to assess the contributions of the aforementioned research processes to the overall PhD Learning System.

4.2 Theoretical underpinnings of a learning process approach

4.2.1 Paradigm in use

A research paradigm is the basic belief system employed by an investigator when conducting their study (Guba and Lincoln, 1994). A significant portion of agricultural research in keeping with a tradition of the natural sciences follows the positivist paradigm of research. This research paradigm pursues an ontological assumption, which considers that it is possible to objectively measure and access reality. A prominent emphasis on the positivist form of logic is evident within the organisation of Teagasc. The mission statement of this organisation, for example, is to support the development of science-based innovations in a manner which underpins profitability, sustainability and competitiveness (Boyle, 2012).

However, while the positivist tradition appears suited to the investigation of non-capricious phenomena, the approach has less application in investigations into the social world where 'things' are generally more volatile (Checkland and Holwell, 1998). In particular, Pretty (1995) notes that: *'the dominant paradigm of positivism has served us well over three to four centuries, but it is not well suited to contexts where uncertainties*

are high, and problems are open to interpretation' (p.1247). He further reports that if we are serious about supporting more sustainable types of agriculture, we must seek to develop new ways of learning about the world. He elaborates that the focus of this learning will need to be *'less on what we learn and more on how we learn and with whom'* (p.1258). Pretty (1995) however, qualifies that this new approach to learning should not imply a polarisation between an old and a new professionalism, rather he reports that true sensibility will lie in the ways in which these professions are synthesized. Similarly, Curry and Kirwan (2014) advocate that the realisation of more sustainable types of agriculture requires research processes that are capable of handling 'constructivist' forms of knowledge and the associated 'complex' sets of objectives, values and styles of implementation which are imbued in these forms of knowledge.

In social research, there is an increasing use of qualitative methodologies to study rural cultures, farming lives and agricultural practices (Pretty, 1994; Dooley, 2007; Riley, 2010). Qualitative methodologies are most often conducted using an ontological stance of constructivism (Guba and Lincoln, 1994; Lincoln *et al.*, 2011). However, in his thesis, while the research process was predominately qualitative in focus, the PhD researcher did not exclusively follow a constructivist paradigm. This decision related to the PhD researcher's concern with constructivist descriptions of the relationship between constructed realities and the original 'givenness' of the cosmos. Her concerns reflect her belief that there is a real world, independent of human conceptions of that world. Furthermore, this belief caused her to determine that constructivist descriptions of the relationship between constructed realities and the cosmos were not wholly appropriate for exploring the interrelations of the social and physical practices of farming and the effect of these practices on the natural world. Similar concerns with the constructivist paradigm were previously expressed by Heron and Reason (1997) and Röling and Wagemakers (1998b)

This research concerned as it is with 'systems thinking' and 'thinking about systems', recognises like Reynolds and Holwell (2010) that systems are conceptual constructs and therefore belonging to the constructivist tradition. The PhD researcher accepts this and acknowledges that learning systems are conceptual constructs, which are not evidently observable in the 'real' world. She however builds this contention within the Participatory Inquiry Paradigm. This paradigm according to Heron and Reason (1997) seeks to place 'us' back in relation with the cosmos. It follows a logic of Abrams (1996) and Sanford (2011) that to determine the world conceptually and without due account of the lived experiences and active participation of the humans within that world, impoverishes our understandings. Similar to constructivist contentions, the participatory inquiry paradigm accepts that it is impossible to provide final or absolute accounts of 'what there is'. However, it differs from the constructivist paradigm in that it extols that it is possible to increase our understanding of 'what there is' by experiencing and getting to know the world (Heron and Reason, 1997).

Taking these considerations into account, the PhD researcher chose to use a Participatory Inquiry Paradigm for investigating and getting to know the different ways of knowing cross compliance and its related extension efforts. The intention of this action was to understand the problematic situation pertaining to extension of cross compliance through engagement, practice and reflection on practice. To nurture this understanding, the learning process approach of Korten (1980), combined with action research and narrative inquiry guided the research interactions. An account of this framework is presented in Sub-section 4.2.2.

4.2.2 Learning to learn about cross compliance and its related extension practices

According to Korten (1980), the effective use of a learning process approach requires an understanding that 'ordinary' people are stakeholders with *'a great deal to contribute to*

program design . More so, it recommends that researchers work *'hand-in-hand with operating personnel'* (p.499). Indeed, Korten (1980) reports that development work: *'calls not for more sophisticated skills in the preparation of detailed project plans, but rather for skills in building capacities for action through action'* (p.502). Equally, the use of a learning process approach requires commitment from those working 'with' or 'within' a situation to recognise and view their actions in that situation as part of the learning experience. This involves underpinning research and development with an understanding that errors are a *'vital source of data for making adjustments to achieve a better fit with beneficiary needs'* (p.498).

To pursue a learning process approach, the PhD researcher made use of the methodologies of action research and narrative inquiry for working with and learning from the participants' lived experiences of cross compliance and its related extension practices. This first of these, action research explicitly strives to investigate 'actual' practices and not 'abstract' practices (Kemmis and McTaggart, 2005). In particular, it seeks to use the practitioner's perspective in the development of questions, puzzles, and problems for research (Argyris and Schön, 1989). Moreover, Reason and Bradbury (2008) describe the practice of action research as a *'participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities'* (p.1). The second research approach, narrative inquiry is not specifically an action research approach, however it was viewed as a complementary approach in this study due to its advocated merit in surfacing farmer's narratives and developing more nuanced appreciations of change from the ground (Riley and Harvey, 2007).

A particular tenet of action research is that 'good' theory can and should arise from practice (Reason and Heron, 1986; Reason and Bradbury, 2001; Brydon-Miller *et al.*,

2003; Kemmis and McTaggart, 2005; Dick and Greenwood, 2015). This aspiration is however censured by Hammersley (2004) who argues that by their nature, action and theory have different immediate goals demanding divergent courses of action. The PhD researcher was conscious to avoid such a divergence in this research and she consciously made use of systems' thinking as a means for theoretically grounding her praxis and research actions. In particular, she applied ideas from the Soft Systems Methodology (SSM) of Checkland (1981) to investigate the perceived problematic situation pertaining to cross compliance and its related extension practices. SSM is an explicitly action-orientated research approach which seeks to organise thinking about problematic situations, in a way that will allow action to be taken to bring about improvements to the situation (Checkland and Poulter, 2010). The SSM approach also assumes the world is complex, problematic, mysterious, and characterized by clashes of worldviews and the different directions and intentions of people acting purposefully within that world (Checkland, 2000; Checkland and Poulter, 2006; Checkland and Poulter, 2010).

Taking a SSM approach usually involves the use of a learning cycle which seeks through social learning processes, to work its way to taking actions to improve a perceived problematic situation (Checkland and Poulter, 2010). Each learning cycle requires the progression of certain processes. The first of which is normally that the researcher will seek to 'find out' about the problematic situation and any interventions which have been previously proffered to improve it. Next, the researcher may select and reflect upon certain purposeful activities related to the intervention in order stimulate discussions about the problematic situation and also possibly to prompt directions for 'actions to improve' it. Checkland and Poulter (2010) however, stress that these discussions are not aimed at building consensus rather they strive to find an accommodation among a group of people with a common concern. An accommodation, in the SSM sense, is a version of a situation which different people, with different worldviews can potentially live with. Moreover, Checkland and Poulter (2010) report that research process which seeks to

understand the complexity of real life will need to be flexible and adaptable. In this sense, they acknowledge that it is rather unlikely that empirical applications of SSM will ever follow the 'flat-footed way' described in the literature. They further highlight that any actions taken to improve a problematic situation will likely change the situation, whilst they also report that in social situations, due to the changing flux of everyday life, there will always be new events and new ideas, and for this reason no human situation can ever be rendered static.

The SSM approach provided a useful learning framework for this study. A particular difficulty in its deployment however was the limited guidance available to a researcher or practitioner when seeking to purposefully engage with ethical issues and tensions arising from a learning intervention. To reflect on these types of matters in this research, the PhD researcher relied more on Critical Systems Heuristics (Ulrich, 1996; Ulrich, 2005; Ulrich and Reynolds, 2010). The Critical Systems Heuristics (CSH) concept provides a philosophical foundation and a practical framework for the researcher to use when unfolding and questioning the 'facts', values and boundary judgements circumscribing an 'improvement' to a particular system of interest (Ulrich, 1983; Ulrich, 1996; Ulrich, 2005; Ulrich and Reynolds, 2010). It also provides direction about the tensions that can arise between 'situation' and 'system', 'is' and 'ought' judgements, concerns of 'those involved' and 'those affected but not involved', stakeholders' 'stakes' and 'stakeholding issues' and other such conceptual issues in their research (Ulrich and Reynolds, 2010). The CSH framework also specifically recommends that the researcher ask specific questions of a situation, in order to make explicit the everyday judgements used for understanding the situation and for designing solutions to improve the situation (Ulrich and Reynolds (2010), p.244). Unfolding boundary judgements in this way can also provide opportunities for the researcher to reveal the selectivity of the different reference systems at work (Ulrich and Reynolds, 2010). The authors however stress that boundary judgements are not an invention of CSH rather they argue that boundary judgements are a feature of everyday

purposeful action which if meaningfully reflected upon can allow the researcher to become more aware of their own choice making and the potential implications of these choices.

In addition to the use of SSM and CSH for guiding the praxis of the PhD researcher, a final research step involved using a multi-loop learning process to evaluate the learning arising from the CCITP and Narrative Inquiry research processes. Following the systems tradition, both aforementioned research interventions were constructed as learning systems to aid the evaluation process. This action involved drawing upon Collins *et al.* (2009a) and Vickers (1983) conceptions of a 'learning system' as an epistemic device for providing a way of knowing or doing. Subsequently, the multi-loop learning evaluations were also viewed as a learning system for the purposes of reporting on the PhD inquiry. Combined, these three learning subsystems formed an over-arching PhD learning system. A visual illustration of this system is again provided in Figure 9.

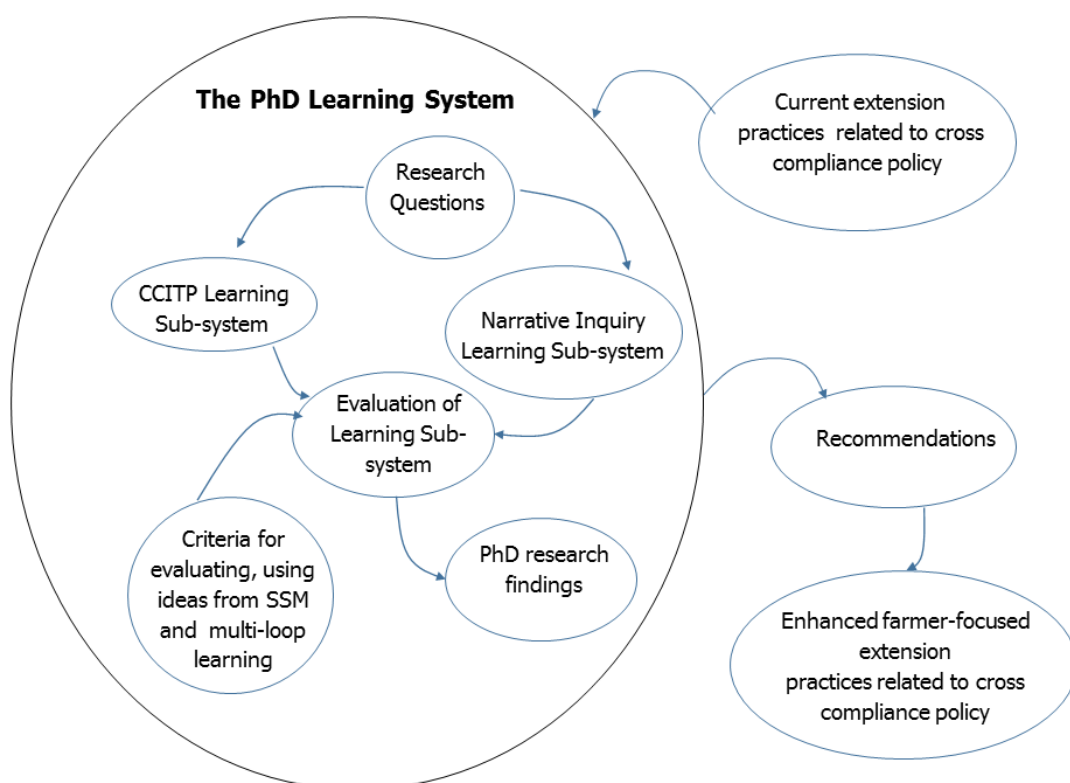


Figure 9: A conceptual model of the PhD Learning System

The specific intricacies of the different methodologies used in these learning sub-systems are reported in sub-sections 4.2.4, 4.2.5 and 4.2.6. First, there is a need to consider the importance of researcher reflexivity when pursuing and reporting on the activities and outcomes of learning systems.

4.2.3 Researcher reflexivity

Researcher reflexivity is an important element of the theoretical underpinnings of this thesis. Its practice is suggested as a means for the researcher to act more awarely and choicefully while acting within the world (Reason, 2001). In other words, it is believed that taking the time to reflect on their practice, will allow the researcher to have better understandings of their motivations for undertaking actions and also for understanding the subsequent outcomes arising from these actions. Genuine researcher reflexivity may also lead to methodological refinements and serendipitous learnings (Carberry, 2001; Bradbury, 2005; Piercy *et al.*, 2011). Furthermore, Smith *et al.* (2010) advocate that reflection can serve to illuminate any *'unintentionally patronising attitudes that can lie beneath the charitable intentions of academics'* (p.411). While, it may also enable the researcher to progress their epistemological development (Salner, 1999).

Researcher reflexivity can also help to improve the quality of the research's recoverability. Checkland and Holwell (1998) advise that a valid action research processes should always be recoverable. This recoverability is however dependent on the research process being effectively conveyed, with sufficient information provided to any interested person who may wish to reinterpret the researcher's actions (Kemmis and McTaggart, 2005). Recording and making explicit the empirical processes therefore is crucial as it is acknowledged that rarely will action research follow the normative pathways implied in the literature (Cornwall and Jewkes, 1995; Brydon-Miller *et al.*, 2003). Moreover, action researchers are advised to accept that it will never be possible to validate the knowledge arising from their learning interventions in terms of the natural sciences' view of

philosophy (Baskerville and Wood-Harper, 1996; Checkland and Holwell, 1998; Ison, 2008). Rather the action researcher will according to McTaggart (1998) validate the knowledge created in the research process against the original research objectives and what was achieved in terms of meeting these objectives. Argyris and Schön (1989) report that the action researcher's task is never straightforward as they will continuously face a dilemma of rigor and relevance. They relate *'if social scientists tilt towards the rigor of normal science that currently dominates departments of social science in American universities, they risk becoming irrelevant to practitioners' demands for useable knowledge. If they tilt towards the relevance of action research, they risk falling short of prevailing disciplinary standards of rigor'* (p.612).

Equally, while the pragmatic aspects of research reflexivity are noted, processing reflexivity in practice can be difficult for the researchers involved. Indeed, Leitch and Day (2000) argue that producing personal reflections upon ones' personal actions is often uncomfortable. Practitioners may also experience discomfort when being reflexive in research interventions 'with' their students or clients (Watkins, 1990; Hagmann *et al.*, 1998a; Mordock and Krasny, 2001). Similarly, Greenwood *et al.* (1993) advise that sentiment can affect the success of an intervention, particularly if practitioners believe that pursuing an action inquiry may undermine their authority. Moreover, the researcher should be cognisant that action research processes will not always be appreciated by the intended recipients, particularly if the recipients experience the research process as manipulative and presumptuous (Cooke and Kothari, 2001; Wadsworth, 2005). It is also worth highlighting that while participatory research approaches are commonly advocated as an alluring way to investigate sensitive topics, their application in real life situations can result in the researcher experiencing complex emotions and distressing scenarios. Indeed, it is reported that the pursuit of action research process can result in situations where researchers feel guilty and inadequate for failing to make a difference (Bruges and Smith, 2009; Klocker, 2015).

In the next sub-sections, an elaboration of the methodologies employed to promote and enable the inquiries of the CCITP, Narrative Inquiry and Multi-loop learning sub-systems is provided.

4.2.4 Participatory Action Research

A Participatory Action Research (PAR) approach was taken in the first inquiry processes of the CCITP Learning Sub-system. This approach is affiliated with the wider action research genre and purposefully sets out to enable a group of people, concerned about or affected by an issue, to come together to take a lead role in producing knowledge about the issue, with an explicit intention of using this knowledge arising to devise a more desirable situation (Walter, 2006; Smith *et al.*, 2010; Pain *et al.*, 2012).

There are no specific blueprints for undertaking PAR (Pain et al. 2012). However, the approach is usually presented as Kemmis and McTaggart (2005) illustrate in Figure 10, as involving self-reflective cycles of 'planning', 'acting and observing' and 'reflecting' (p.564).

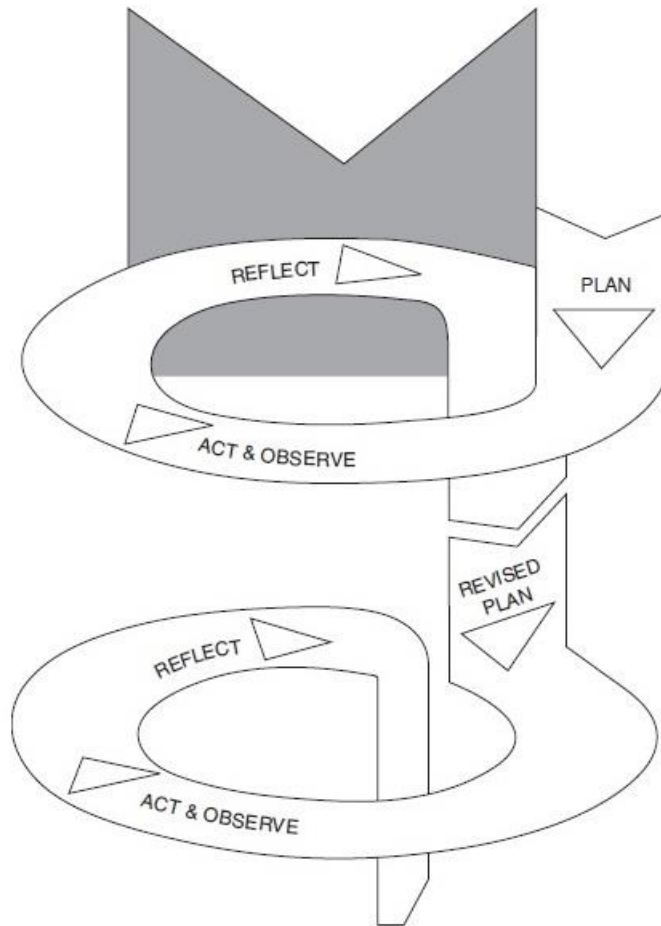


Figure 10: The reflexive cycles of Participatory Action Research

In addition, when an academic researcher commits to conducting an inquiry using the principles of PAR, it is expected that they will respect and uphold certain ethical considerations. These considerations include following the Freirean stance, which affirms the participants' own knowledge as valuable. In this sense, participants are recognised according to Cornwall and Jewkes (1995), as agents *'capable of analysing their own situations and designing their own solutions'* (p.1670). Secondly, taking a PAR approach relies on a proposition that causal inferences about the behaviour of human beings are more likely to be valid and enactable when those affected are involved in building or testing these inferences about their situation (Argyris and Schön, 1989). Furthermore, Fals-Borda (2006) emphasises that the effective use of PAR requires reflexivity. He states *'the Greeks have given us a good rule for this: direct praxis should be complemented by ethical phronesis. That is, simple activism is not enough: it needs to be guided by good*

judgement in seeking progress for all (p.358). Moreover, the dissemination of any knowledge generated through a PAR process is expected to be returned to those that created the knowledge. According to Fals-Borda (1987), returning knowledge to participants is obligatory, as they are in essence the true owners of this knowledge. He also highlights that the effective dissemination of this knowledge requires communication strategies which avoid the *'airs of arrogance and the technical jargon that springs from the usual academic and political practices'* (p.345). Similarly, McTaggart (1998) reports that the *'sharing of data and dialogue about its meaning and usefulness is a key commitment in participatory action research because of the joint commitment to collective reflection in the objectification of experience and the disciplining of subjectivity in the formulation of prudent action'* (p.225). The dissemination of 'new' knowledge to non-academic stakeholders may be progressed through a range of communicative channels including publications, websites, social media, events, and networking (EIP-AGRI-Focus-Group, 2015). Finally, it is reported that researchers should never assume that the PAR methodology is in conflict with 'science' (Torre *et al.*, 2012; Whitman *et al.*, 2015). According to Whitman *et al.* (2015) the PAR approach does not seek to discredit the expertise of scientists, rather it recognises that knowledge may be 'certified' in multiple ways. In a similar vein, Smith *et al.* (2010) advise that academic researchers should view their involvement in PAR interventions as stakeholders with knowledge to share. Equally, PAR interventions are described as having a potential to serve as joint intellectual efforts between academic and non-academic researchers (Carberry *et al.*, 2002).

Conversely, Pain *et al.* (2012) contend that if a research project is entirely organised by a policy-making body or university researchers, it is unlikely to be PAR. On the other hand Hill *et al.* (2015), report that while challenging, operationalizing partnerships between universities and communities is possible and can result in positive transformations, provided certain caveats are fulfilled. Firstly, they report that there must be nurturing and sustaining trust between community partners and university partners. Secondly, adequate

resources must be provided to facilitate meaningful engagement. Thirdly, there is a need for unambiguous terms of references. Fourthly, they report that if an organisation wishes to be included in community partnerships, they must value or at least tolerate their faculty or community member's involvement in the research process. While, finally Hill *et al.* (2015) concede that successful university/community partnerships often require a good deal of serendipity.

4.2.5 Narrative Inquiry

The second research process of the Narrative Inquiry Learning Sub-system used the medium of narrative to explore farmers' lived experiences of cross compliance. Narrative is a distinct form of discourse that encompasses retrospective meaning-making as the narrator shapes and orders their account of past experiences (Chase, 2007). A narrative will often also include the narrator's point of view and rationale for telling a story (Chase, 2007). Narrative inquiry is considered to provide researchers with an opportunity to understand the meaning of everyday activities from the perspective of the person undertaking these activities. The approach is argued as especially suitable for studies of pro-environmental practice (Hards, 2012). Furthermore, in the agricultural context, farmer's narratives, scripts and stories are suggested as having significant potential to inform learning tools for agricultural extension (Vanclay and Enticott, 2011; Macken-Walsh and Roche, 2012; Vanclay, 2013). In particular, Vanclay and Enticott (2011) advise that extension organisations should prior to promoting practice change, purposefully set out to understand the specific scripts and narratives of the social context in which they will be operating. Improved understandings of farmers' scripts and narratives, they argue can enhance the overall effectiveness of an extension programme. Moreover, methodological approaches which allow interviewees to set out concepts in their own words and terminologies are claimed as having a potential for bringing a crucial social element to understandings of change (Riley and Harvey, 2007).

4.2.6 The Multi-loop Learning Process

In keeping with the traditions of a learning process approach, the PhD researcher extensively reflected on the process and outcomes of the CCITP and Narrative Inquiry learning sub-systems and in particular the efficacy, efficiency and effectiveness of these learning sub-systems for informing the PhD Learning System. She also considered her own practice whilst pursuing these learning sub-systems. She pursued this reflection whilst taking account of Figure 11 from Ison (2010). This figure is a useful heuristic which illustrates the dynamics involved in the process of a practitioner seeking to understand their own practice (Ison, 2010/p.48). This process involves the practitioner (P) seeking to understand a situation that they were/are involved in (S) using a method or methodology (M) and a particular framework of ideas and theory (F).

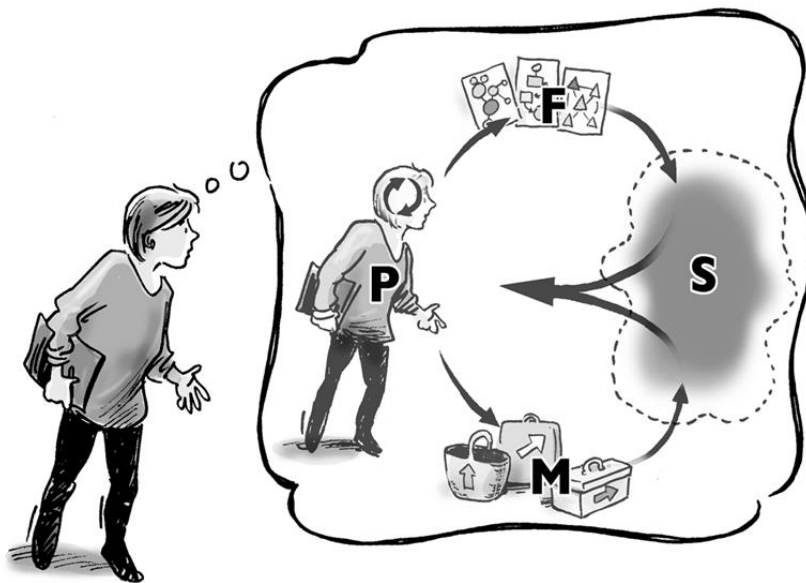


Figure 11: Understanding the practice of understanding practice

In the PhD Learning System, the process involved the PhD researcher (P) using a multi-loop learning framework (M) which followed the systems thinking of SSM and CSH (F) for evaluating the insights and learning arising from the CCITP and Narrative Inquiry learning sub-systems to inform the PhD Learning System (S). Moreover, the multi-loop learning

process was progressed taking account of Argyris and Schon (1978) logic that if a research intervention is to realise meaningful changes, it must move beyond a basic querying of whether the research activities realised their objectives, to deeper questions about the goals, values, plans and rules of the research and its purpose(s).

This deeper questioning was achieved in the Multi-loop Learning Sub-system by judging the CCITP and Narrative Inquiry learning sub-systems in terms of an adapted SSM criteria (Checkland and Poulter, 2010). These criteria were:

- i. Criteria for efficacy to indicate whether the intervention worked
- ii. Criteria for efficiency to judge whether the intervention was achieved with a minimum use of resources
- iii. Criteria for effectiveness that sought to tell whether the intervention achieved some higher level or longer term aim i.e. to inform extension practices

This particular combination was chosen because it seemed to offer an opportunity for understanding the learning sub-systems from a number of perspectives. This research trait, in which the researcher moves between different levels of abstraction, is according to Ison (2010) an important aspect of systems practice, which if done well can assist with understanding "*what it is that we do when we do what we do*" (p.50).

The remainder of this chapter will outline the different methods and processes employed to pursue the methodologies discussed in this section.

4.3 Methods used in the CCITP Learning Sub-system

4.3.1 An overview of the research process

The CCITP Learning Sub-system was a complex research process. The following Table 3 provides a synopsis and timeline of the principal activities progressed.

Table 3: CCITP Learning Sub-system activities and timeline

| Activity | Start date | Finish date |
|---|---------------|----------------|
| PhD researcher begins her investigation in REDP Teagasc | April 2013 | On going |
| Project purpose and goals agreed | April 2013 | April 2013 |
| Ethical approval granted | May 2013 | On going |
| 'Finding out' phase | April 2013 | May 2013 |
| Stakeholder analysis | April 2013 | May 2013 |
| Formal farmer and advisor engagement | June 2013 | November 2013 |
| Formal non-farmer stakeholder engagement | August 2013 | November 2013 |
| Data analysis | November 2013 | April 2014 |
| Project dissemination | November 2013 | November 2014 |
| Reflecting on potential for actions | December 2014 | March 2015 |
| BNIM interviews with the specialist advisors | August 2015 | September 2015 |

A first task was to 'find out' about cross compliance and its related extension practices. This process required investigating who the involved and affected stakeholders might be. The methods used to pursue this analysis are provided in Sub-section 4.3.2, followed in Sub-section 4.3.3 with an overview of the processes taken to pursue engagement with

the stakeholders identified and prioritised. Lastly, there is an account of the thematic data analysis approach, which was taken to make sense of the CCITP research findings

4.3.2 Methods used in the stakeholder analysis

The process of stakeholder analysis conducted to identify potential participants for the CCITP involved a combination of methods from project management and systems thinking. The methods utilised included SSM methods, power/interest classification models, the boundary categories and questions of CSH, and diagramming techniques. Each method is described below:

- **SSM methods**

Two SSM methods were used to 'find out' who the involved and affected stakeholders in the problematic situation of cross compliance extension 'might be'. These were root definitions and CATWOE exercises (Checkland and Poulter, 2010).

- i. Root definitions

Root definitions are used to construct a model of a purposeful 'activity system'. This process requires the creation of a statement to describe the 'root' of an activity system i.e. a system to paint a fence. Constructing a model of an 'activity system' can serve as a guide for the researcher to better understand the different processes and worldviews involved in a particular activity and its situation. They can also help with identifying which stakeholders might be responsible for undertaking a particular purposeful activity.

- ii. CATWOE

A CATWOE is a more detailed elaboration of a root definition. Conducting a CATWOE requires identifying the **C**lients of the identified activity system, the **A**ctors of the system, the **T**ransformation required, the **W**orldview involved, the

Owner of the system and the Environmental constraints involved. An illustration of the CATWOE method from Checkland and Poulter (2010) is provided in Figure 12.

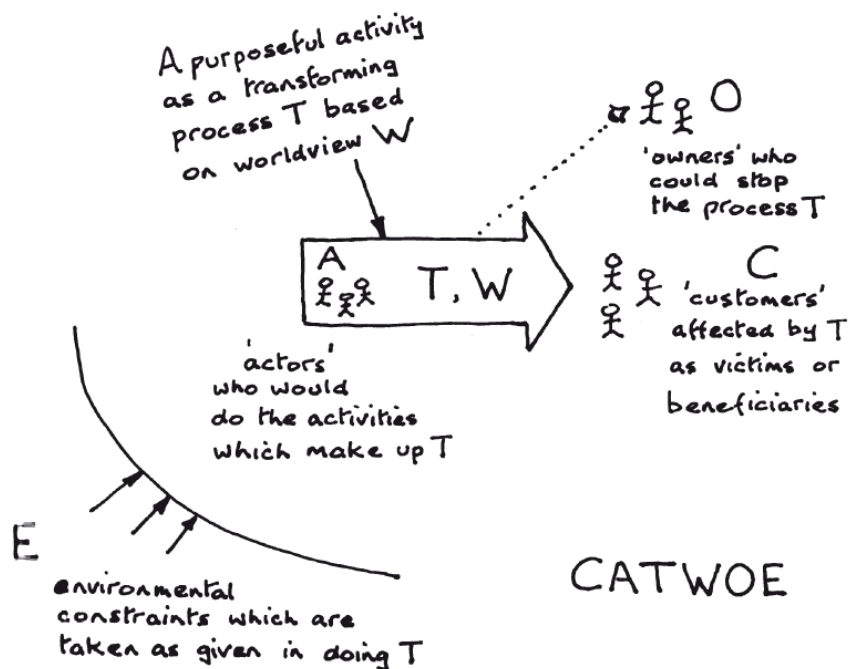


Figure 12: CATWOE

- **Power/interest classification model**

Following the initial use of SSM methods for identifying potential participants, a power/interest classification model from the PMI (2008) was used to gauge which of the stakeholders identified through the SSM methods would most likely be interested in participating in the CCITP. The use of Power/interest classification models is a regular feature of corporate project management. Their application requires making a power/interest 'judgement' on identified stakeholders based on 'an expert' judgement of the stakeholders likely 'interest' and 'power' over a project. Judgements are primarily subjective and usually dependent on the person or processes involved. Once a judgement is applied to stakeholders, they are then assigned to a predetermined engagement model

such as the model illustrated in Figure 13. This model usually involves the four prescriptive engagement strategies of 'keep satisfied', 'manage closely', 'monitor' and 'keep informed'.

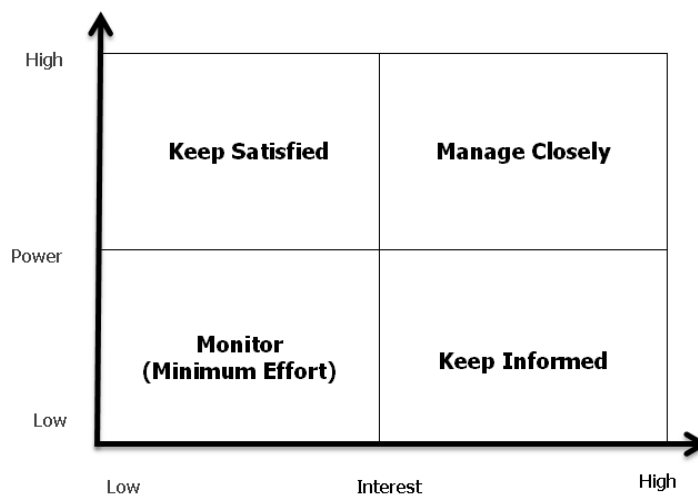


Figure 13: Power/interest classification model

- **The boundary categories and questions of CSH**

In this research, whilst in the process of analyzing the potential CCITP stakeholders using the aforementioned power/interest classification model, the PhD researcher determined that the findings arising from this application of this model were unsatisfactory when viewed in terms of the participatory ethos of the CCITP. She therefore made the decision to reconvene the stakeholder prioritisation using the boundary categories and questions of CSH (Ulrich and Reynolds, 2010). The application of this framework involved asking specific boundary questions about the situation of cross compliance extension practices. Figure 14 from Ulrich and Reynolds (2010) provides the types of questions posed in the CSH framework.

| Sources of influence | Boundary judgements informing a system of interest (S) | | | |
|------------------------------|--|--|---|---------------------|
| | <i>Social roles (Stakeholders)</i> | <i>Specific concerns (Stakes)</i> | <i>Key problems (Stakeholding issues)</i> | |
| Sources of motivation | 1. <i>Beneficiary</i> Who ought to be/is the intended beneficiary of the system (S)? | 2. <i>Purpose</i> What ought to be/is the purpose of S? | 3. <i>Measure of improvement</i> What ought to be/is S's measure of success | The involved |
| Sources of control | 4. <i>Decision maker</i> Who ought to be/is in control of the conditions of success of S? | 5. <i>Resources</i> What conditions of success ought to be/are under the control of S? | 6. <i>Decision environment</i> What conditions of success ought to be/are outside the control of the decision maker? | |
| Sources of knowledge | 7. <i>Expert</i> Who ought to be/is providing relevant knowledge and skills for S? | 8. <i>Expertise</i> What ought to be/are relevant new knowledge and skills for S? | 9. <i>Guarantor</i> What ought to be/are regarded as assurances of successful implementation? | |
| Sources of legitimacy | 10. <i>Witness</i> Who ought to be/is representing the interests of those negatively affected by but not involved with S? | 11. <i>Emancipation</i> What ought to be/are the opportunities for the interests of those negatively affected to have expression and freedom from the worldview of S? | 12. <i>Worldview</i> What space ought to be/is available for reconciling differing worldviews regarding S among those involved and affected? | The affected |

Figure 14: Boundary categories and questions of CSH

- **Diagramming techniques**

The final method used to pursue the stakeholder analysis was diagramming. This approach is a common feature in systems thinking and practice. Diagrams serve to visually represent versions of a 'reality' and have a potential to act an aid to contemplation, communication and action (Lane, 2013). Diagrams may also promote more systemic appreciations of the knowledge flows between users, creators and intermediaries in a particular knowledge system (Oreszczyn and Lane, 2012).

Diagramming methods were used in two related ways in the CCITP stakeholder analysis. Firstly, they were used to visualise the identified stakeholders and secondly this visualisation was in turn used as heuristic for exploring which of the identified stakeholders could be prioritised for engagement.

4.3.3 CCITP Stakeholder engagement

Four data collection approaches were used in the stakeholder engagement stage:

i. Participant observation

This approach is described by Bryman (2008) as a process in which the researcher immerses themselves within a group for a period of time in order to observe behaviour and listen to conversations. In the CCITP, participant observation was undertaken at all of the cross compliance extension events attended by the PhD researcher. Observations were recorded as field notes and included specific notations regarding attendance and the types of interactions occurring between the stakeholders. Due to Teagasc's confidentiality requirements for their farming clients, no personal information or farmer stories were recorded in the field notes.

ii. *Simple Comments Sheet* for farmers

The *Simple Comments Sheet* was a double-sided A4 page. The text entailed a short description of the project, a space for farmer comment, a contact details section and a note introducing the PhD researcher. An open-ended question asking farmers for their 'thoughts' was also included. This open-ended type of question format was chosen so that the participating farmers could contribute to the CCITP at the level in which they deemed appropriate (See Appendix D).

iii. Detailed Comments Sheet for farmers

The *Detailed Comments Sheet* was a more complex document than the *Simple Comments Sheet*. It was composed of eight A4 pages. The content included a short description of the CCITP, a contact details section, a note introducing the PhD researcher and two set of questions. The first set of questions, asked the participants for details about themselves and their enterprise. The second set of questions were concerned with the farmer's perception of the *Cross Compliance Workbook*, their approach to cross compliance extension and their perceptions of the policy (see Appendix E).

iv. Structured correspondence with non-farmer prioritised stakeholders

A structured approach was used to engage with the prioritised non-farmer stakeholders. This technique involved sending a personalised communication by either email or post to the identified non-farmer stakeholder. This communication introduced the CCITP and the PhD researcher, before requesting that the stakeholder might answer certain questions pertaining to the CCITP and the provision of cross compliance information to farmers (see Appendix F).

4.3.4 CCITP Data analysis

The CCITP findings were analysed using a thematic analysis approach. This approach was also subsequently used to analyse the findings arising from the Narrative Inquiry learning sub-systems. Thematic analysis involves applying an analytical framework, encompassing codes, subthemes and themes, to the data set (Bryman, 2008; Lichtman, 2012). The first task involved is coding. This process, according to Saldaña (2012), is not a precise science but rather an interpretive act. A code may be a word or short phrase, which as Saldaña (2012) reports will '*symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data*' (p.3). Researchers may

identify codes *a priori* or they may allow codes to emerge organically from the data using iterative cycles of reading and reflection (Lichtman, 2012).

Following coding, the next analysis stage is to organise the codes into categories. This process requires arranging (and potentially rearranging codes) codes into a systematic order. Once an order is finalised, the determined categories can be distilled into themes. Saldaña (2012) describes a theme as a particular outcome of the process of coding, categorization and analytical reflection. Equally, Morse (2008) describes a theme as a meaningful essence that can be detected throughout the research data.

Once a researcher is satisfied that they have identified appropriate themes for representing the data, they can progress to selecting supporting data for evidencing their identified themes. Supporting evidence will usually take the form of quotations from the raw data. An additional process, is that the researcher may choose to place their narrative evidence in a thematic matrix as an aid to analytical clarity (Bryman, 2008). Table 4 provides an example of a thematic matrix.

Table 4: Thematic matrix

| | Theme 1 | Theme 2 | Theme 3 | Theme 4 |
|----------|---------|---------|---------|---------|
| Farmer 1 | | | | |
| Farmer 2 | | | | |
| Farmer 3 | | | | |
| Farmer 4 | | | | |
| Farmer 5 | | | | |

It is advised that before moving to explain research data in relation to the emerging themes that the researcher actively considers whether they can confidently undertake an analysis of the data using the themes developed (Ritchie *et al.*, 2013). If the researcher is confident that this is achievable, they can move to develop explanations of the

phenomena under observation as outlined above (Lichtman, 2012; Ritchie *et al.*, 2013). However, if the researcher is not confident that they have reached this stage, they should reconsider the initial themes chosen to represent the data.

In the next Section 4.4, there is a description of the interview methodology progressed with the specialist advisors in the CCITP and the six farmers who participated in the Narrative Inquiry Learning Sub-system.

4.4 Narrative Inquiry

4.4.1 Biographic-Narrative Interpretive Method interviews

Interviews are a common method in qualitative research. In particular, unstructured interviews are considered to have an ability to reveal rich material pertaining to the interviewee's conceptions of 'what is relevant and important' for the research question (Bryman, 2008). It should never be assumed that interviews provide an unproblematic window into social reality. Rather interviews according to Wengraf (2001) provide 'data' from a particular research conversation which occurred at a particular time and place. Narratives should also never be viewed as pure recollection as an individual memories will be rewritten over time (Riley and Harvey, 2007; Thomson, 2011).

In this research, the principal interview technique used was the Biographic-Narrative Interpretive Method (BNIM) (Wengraf, 2001). This specialised technique assumes that narrative expression is representative of both the conscious concerns and unconscious cultural, societal, and individual pre-suppositions and processes of the participant (Lewis-Beck *et al.*, 2003). Moreover, the BNIM interview technique purposefully places the researcher within the role of active listener with 'control' of the interview scene ceded to the interviewee (Fenge *et al.*, 2010).

The BNIM interview technique was used twice in this research. Firstly, to learn about the Teagasc Specialist Advisors subjective experiences of participating in the CCITP Learning Sub-system, and secondly as a research approach for learning about farmers subjective experiences of cross compliance in the Narrative Inquiry Learning Sub-system. The technique is performed in three parts (Wengraf, 2001):

- i. Each interview begins with a SQUIN (single question aimed at inducing narrative).

A sample SQUIN may be:

"As you know, I'm researching [research topic], so can you please tell me your story since you started thinking about [research topic], all the events and experiences that were important to you personally. I'll listen, I won't interrupt, I will take some notes in case I have questions, take your time and begin whenever you like".

Following the delivery of a chosen SQUIN, the interview scene is ceded to the interviewee in order that they may interpret the SQUIN and elicit their response to it. It is imperative that the interviewer does not interrupt the narrative offered by the interviewee at this stage. Their role is rather to listen and to take notes. These notes are used to prompt the sequencing of questions in the second part of the BNIM interview.

- ii. Once the interviewee completes their response to the SQUIN, the researcher may probe the given narrative using cue questions as prescribed in the BNIM method. Cue questions must always be asked in the order of the topics provided and always using the cue-words given by the interviewee (Wengraf, 2001).
- iii. In some situations, for example if the researcher considers that the narrative provided by the interviewee does not sufficiently address their research question, or perhaps if they seek clarification on a matter post transcription, they

may return to ask the interviewee about the particular subject matters that concerns them. Part three interviews are usually conducted on a separate occasion (Wengraf, 2001). It is however most likely that a part three will not be required, as usually the original narrative of the interviewee is sufficiently rich in material to answer the research question.

4.4.2 Analyzing the BNIM interview transcripts

The BNIM interview technique will normally result in a breadth of rich and detailed material to answer the research question. Miles (1979) however, notes the richness of this data can quickly become an 'attractive nuisance' if it is not adequately managed. Similarly, Bryman (2008) emphasises that the role of qualitative researcher is to find a research pathway through the thicket of prose that forms their data.

An array of choices are available to the qualitative researcher when seeking to analyse their data (Basit, 2003; Lichtman, 2012). In addition to the thematic analysis approach used in the CCITP, two additional data approaches were considered as potential analysis approaches for the data arising from the BNIM interviews. These approaches were narrative analysis and grounded theory. The first named, narrative analysis encompasses a wide variety of approaches concerned with exploring the stories that people employ to understand their lives and the world around them (Labov and Waletzky, 1997; Bryman, 2008; Lichtman, 2012). The second listed approach, grounded theory developed from early theories of Glaser and Strauss (1967). It is a popularly cited framework in qualitative research studies. A key facet of grounded theory is that the process of data collection and conceptualisation continues until the researcher is satisfied that they have reached a saturation point and that no additional data will add to their research theory (Strauss and Corbin, 1998; Ritchie *et al.*, 2013). Bryman (2008) reports that there is a significant amount of disagreement within the qualitative community as to what actually constitutes grounded theory. Similarly, Strauss and Corbin (1998) report that the analytical

techniques and procedures of grounded theory can be used in different ways by researchers.

While, it would likely have been possible to apply either a narrative analysis (Labov and Waletzky, 1997) or a grounded theory (Strauss and Corbin, 1998) analysis approach to the data collected from the BNIM interviews, the PhD researcher decided to continue with the use of thematic analysis as applied to the CCITP findings. She made this rationalisation because she considered that the data set was small enough to keep track of without specialist software, while secondly she was already familiar and comfortable with using the thematic analysis approach. (The thematic approach is described in Sub-section 4.3.3).

4.5 Progressing the CCITP Learning Sub-system

4.5.1 Stakeholder analysis

As outlined earlier, a hybrid of systems thinking and conventional project management methods was used to determine potential CCITP stakeholders. An account of the processes taken and their outcomes is provided in Table 5.

Table 5: The five stages of the stakeholder analysis

| Stage | Approach | Purpose of activity | Outcomes | Reflections with specialist advisors |
|--------------|--|----------------------------|---|---|
| 1 | Stakeholder types were identified from the text of the workbook. | To identify stakeholders | List of 20 different stakeholder types. | Specialist advisors considered the list developed was not conclusive. They highlighted that certain important stakeholders from their perspective were absent. |
| 2 | The SSM methods of root definitions and CATWOEs were performed. To develop root definition and CATWOEs, the workbook, policy documents, websites and blogs were consulted as a means to identify cross compliance actions. Appendix A provides an example of a CATWOE Model. | To identify stakeholders | List of 72 different stakeholder types. | Revised stakeholder list was considered extensive but unworkable by the specialist advisors. They advised that the stakeholder list should be prioritised. The PhD researcher agreed with the need for refinement especially when taking account of the practicality of the research context. |

| | | | | |
|---|--|--|--|--|
| 3 | Stakeholders were assigned a power/interest rating in relation to their interest in the CCITP using a 5-point Likert Scale. This rating was then applied an engagement matrix. | To prioritise stakeholders for engagement | A rated list of 72 stakeholder types | Following some reflection of the findings of the power/interest classification model, the PhD researcher decided that due to the overarching participatory ethos of the CCITP that the prepared power/interest findings could only be used as a heuristic for prioritisation rather than a rigid ranking. This related to observation of certain anomalies during the analysis. For example a stakeholder type known as 'Farmers who do not use a FAS' were judged using the power/interest model to have limited interest and power in the CCITP. This low rating should have seen this group assigned to a 'keep informed' engagement strategy. However, from an extension perspective a 'farmer who do not use a FAS' is a particular target group and therefore logically should be attributed a 'manage closely' engagement strategy. |
| 4 | Stakeholder list was re-examined using the boundary categories and questions of Critical Systems Heuristics. Appendix B summarises this exercise. | To purposefully consider stakeholders in terms of their involvement or ability to be affected by the CCITP | A prioritised list of 14 stakeholder groups | The CSH categories allowed for a deeper understanding of what the CCITP could achieve and with whom. It was realised that meaningful engagement in the CCITP required a prioritisation of farmers as they were the main service users of cross compliance extension services. In addition, CSH reflection allowed for a reconsideration of identified stakeholder types into stakeholder groups. |
| 5 | Stakeholder diagramming | To visually illustrate potential stakeholders and to promote discussion about cross compliance information sources | Diagram of prioritised stakeholders groups. The diagram uses the logos of relevant groups or representative images | Several reiterations of this diagram were progressed in collaboration with the specialist advisors. (A final diagram is provided in Figure 16 and Appendix C). |

The final accumulation of the stakeholder analysis was to determine that farmers as the primary service users of Teagasc's cross compliance extension services were a primary group of stakeholders who should be prioritised for engagement in the CCITP. A second priority grouping, was the range of non-farmer stakeholder categories who were determined to serve as sources of information and advice for farmers engaging with cross compliance. These categories were:

- The appeals bodies
- The competent control authorities
- Farm service providers
- Farmer support organisations
- Farming media
- Formal information services i.e. extension organisations
- Other farmers and fellow discussion group members
- Other relevant organisations i.e. environmental NGOs
- Political representatives
- Quality assurance and marketing initiatives
- Research and third-level institutions
- Social and other media
- Family, neighbours and friends

Following some considerations of the visualised map of stakeholder categories, it was evident that certain stakeholder categories were from a pragmatic perspective likely to be too difficult or cumbersome to actively engage with under the remit of the CCITP. This sentiment was in particular determined the following categories; *'family, neighbours and friends'*, *'farm service providers'* and *'social and other media'*. A decision was therefore taken that the PhD researcher would only actively seek to engage the following prioritised categories: the appeals bodies, cross compliance enforcers, cross compliance information sources, farming media, farming organisations, government representatives, other

organisations i.e. environmental NGO's, quality assurance schemes and marketing initiatives and research and third level institutions. This diverse grouping is referred to in this thesis as the 'non-farmer stakeholders'.

In the next sub-sections 4.5.2 and 4.5.3, the outcomes arising from the engagement processes taken with farmer and non-farmer stakeholder are outlined.

4.5.2 Farmer engagement

Two engagement approaches were progressed with farming stakeholders:

- Face-to-face engagement at cross compliance extension events and the 2013 National Ploughing Championships
- Invitation to participate in Teagasc's *Today's Farm* magazine

Each of these approaches are described in detail below:

Face-to-face engagement at cross compliance extension events and the 2013 National Ploughing Championships

Firstly, in order to initiate a process of farmer engagement at cross compliance extension events, the PhD researcher would contact the organising advisor(s) in order to seek their support for undertaking data collection at their event. All of the advisors that were asked to facilitate the CCITP data collection agreed to do so. In total, the PhD researcher worked with approximately 20 Teagasc farm advisors during the CCITP. She acknowledges that the support of these 20 advisors was essential for the successful facilitation of face-to-face engagement with farmers at cross compliance extension events. It is noted that many of these advisors were 'Good Farm Practice/Environment and Technology' advisors which is a specific role held in Teagasc advisory regions.

Through working with the farm advisors, the PhD researcher was able to provide 621 farmers with an opportunity to participate in the CCITP. This involved the facilitation of

the CCITP at extension events in eight counties across the four provinces of the Republic of Ireland. These counties were Cork and Limerick in the province of Munster, the counties of Galway and Roscommon in Connacht, counties Carlow, Longford, and Laois from Leinster and County Donegal from the province of Ulster. This range of counties as illustrated in Figure 15 was purposefully chosen in order to promote geographical diversity.



Figure 15: CCITP locations

To progress data collection at these extension events, the CCITP was usually introduced by the farm advisor in charge of the event. This introduction was then followed by a short briefing from the PhD researcher about using the research tools. At the extension events, it was emphasised to stakeholders that their participation in the CCITP was entirely voluntary. This clarification sought to avoid Rahnema's (1992) caution against 'dragging' people into operations of no interest to them.

Two different engagement methods were used to pursue face-to-face engagement: 'Simple Comments Sheet' (Appendix D) and a 'Detailed Comments Sheet' (Appendix E).

The first listed, the '*Simple Comments Sheet*' was used on ten occasions with 167 participants. Additionally, 129 of the participating farmers provided their contact details. Sharing their contact details indicated a willingness to participate in further research opportunities that may occur as part of the PhD Learning System. The second data collection approach of the '*Detailed Comments Sheet*' was used on two occasions with 29 participants. This data tool was developed for the specific purpose of engaging with farmers who visited the Teagasc Environment Tent at the National Ploughing Championships in Ratheniska, Stradbally, Co. Laois on Thursday the 26th of September 2013. On this date, 22 farmers contributed to the CCITP. The second occasion of its use was at a discussion group meeting. Eight farmers contributed on this date. None of the farmers who participated using the '*Detailed Comments Sheet*' shared his or her contact details to indicate a willingness to participate in future research in the PhD Learning System.

At the end of the engagement process, a total of 198 individuals participated in the CCITP.¹⁶ Table 6 provides an overview of this engagement:

Table 6: Summary of the face-to-face engagement activities

| No. | Event type | Attendance | Type | Distributed | Returned | Contact details |
|-----|-----------------------------------|------------|------------|-------------|------------|-----------------|
| 1 | 5 Hour short course | 20 | Simple | 19 | 13 | 7 |
| 2 | 5 Hour short course | 13 | Simple | 13 | 10 | 6 |
| 3 | National Ploughing Championships | N/A | Detailed | 21 | 21 | 0 |
| 4 | 2.5 Hour discussion group meeting | 9 | Detailed | 8 | 8 | 0 |
| 5 | 2.5 Hour discussion group meeting | 8 | Simple | 8 | 6 | 6 |
| 6 | 2.5 Hour discussion group meeting | 23 | Simple | 23 | 3 | 3 |
| 7 | 5 Hour short course | 15 | Simple | 15 | 5 | 5 |
| 8 | 2.5 Hour discussion group meeting | 16 | Simple | 15 | 14 | 13 |
| 9 | 2.5 Hour short course | 17 | Simple | 15 | 15 | 14 |
| 10 | 3 Hour short course | 250 | Simple | 170 | 69 | 52 |
| 11 | 2.5 Hour public meeting | 200 | Simple | 100 | 11 | 10 |
| 12 | 2.5 Hour short course | 50 | Simple | 45 | 21 | 13 |
| | Total: | 621 | N/A | 452 | 196 | 129 |

- **Participation invite in *Today's Farm***

The second approach taken to progress farmer engagement was the inclusion of a participation invite in the July-August 2014 edition of the *Today's Farm* magazine. This is Teagasc's client magazine which is circulated six times a year to 40,000 farmers. The invite was featured as part of an article on cross compliance (Hyde, 2014). The result of this engagement approach was however limited and out of the potential 40,000 clients

¹⁶ Includes two farmers who piloted the Comments Sheets

who could have responded to the invite, only two farmers contacted the PhD researcher. The first respondent requested a copy of workbook, while the second emailed a number of technical questions with relevance to the application and enforcement of cross compliance policy. As these questions were of a technical nature, the PhD researcher forwarded the correspondence to a specialist advisor, who responded directly to the farmer.

4.5.3 Engaging with non-farmer stakeholders

The contact details of the prioritised non-farmer stakeholders were sourced from the specialist advisors and through desktop internet searches. These processes resulted in the sending of 75 personalised invites to participate in the CCITP to a range of non-farmer stakeholders in August 2013 and September 2013. Although the correspondence was personalised, this engagement approach was primarily structured. Stakeholders received a letter outlining the purpose and objectives of the CCITP and specific questions related to the CCITP. Additionally, the stakeholders were provided with a copy of the *Cross Compliance Workbook* and the *Cross Compliance Information Sources* diagram (see Appendix C). In total, 26 non-farmer stakeholders participating in the CCITP Learning Sub-system.

4.5.4 Analysis of the CCITP data

The findings of CCITP was analysed using the thematic analysis approach described in Sub-section 4.3.4. Farmer comments and non-farmer stakeholder comments were initially analysed separately. Following the determination of a set of themes for both data sets, these themes and their supporting data were combined and configured to ascertain commonalities. This analysis involved a thematic matrix created using Microsoft Excel 2010 to explore the intersection of the identified themes with the research question and the initial purposes of the CCITP.

Once the PhD researcher was satisfied that the research findings were in a comprehensible format, she circulated a summary report of the findings to the two specialist advisors. This approach follows Franz (2013) consideration that it is usually impractical to expect non-researchers (like the specialist advisors) to have the time or resources to dedicate to the interpretation of raw data.

4.5.5 Dissemination of the CCITP findings

As expected in a research project guided by the principles of PAR (Fals-Borda, 1987; McTaggart, 1998), once the CCITP findings were available in a format that would likely appeal to interested lay persons, a process to develop a participant research update was initiated. The specialist advisors emphasised that this research update would need to be a visually attractive and accessible document. To achieve this objective, a close collaboration between the PhD researcher and the specialist advisors was progressed to collate and elaborate the research findings into the final document entitled the *Cross Compliance Workbook Update* (To view this document, please see Appendix G).

The preparation of the *Cross Compliance Workbook Update* document followed recommendations contained in *LIFE-Nature: Communicating with Stakeholders and the General Public: Best Practice Examples for Natura 2000* (Sundseth, 2004). It also guided by an analysis of articles prepared for Teagasc's client publication *Today's Farm*, and by the critical insights of the specialist advisors who were experienced in the production of non-technical publications for farming stakeholders. In preparing the document, considerable effort was given to ensuring that the *Cross Compliance Workbook Update* was representative of a diversity of perspectives whilst at the same time being a short visual document. A Wordle™ (www.wordle.net) was used to visualise participant comments on the workbook (see Appendix G). A 'wordle' is essentially a 'wordcloud', which shows the frequency of words in a piece of text by making words used more frequently appear larger in the text. The wordle allow commonly used words to be easily identified by the reader (Wansbury *et al.*, 2014). Other content included:

- A commentary on cross compliance policy and its associated extension sources
- A visual depiction of cross compliance information sources
- A discussion of cross compliance enforcement
- Information of the DAFM Farmers' Charter (since updated)
- An outline of the sentiments expressed regarding cross compliance application
- A note on the next steps of the project and a request for participants to comment on the findings presented in the update.

Once the document was finalized, the *Cross Compliance Workbook Update* was circulated to approximately 200 stakeholders on the 1st of August 2014. These stakeholders included the CCITP participants, farm advisors, host farmers and other interested and involved stakeholders who had contributed in some way to the construction of the knowledge contained in the research update.

In addition to participant dissemination, the CCITP research findings were also presented at nine seminars and conferences between 2012 and 2014 (see Appendix H). While, this type of dissemination is a normal requirement of a PhD research process, due to the participatory ethos of the CCITP intervention, it sought to achieve two additional imperatives. These were 'peer' or 'colleague' checking and the enabling of action. The outcome of this process is outlined in Sub-section 5.5.3.

4.5.6 BNIM interviews with specialist advisors

Towards the end of the CCITP process, BNIM interviews were progressed with the two specialist advisors who had worked with the PhD researcher in the progression of the project. The intention of these interviews was to learn from their experiences of participating in the project. The interviews were conducted in the office of the specialist advisor, audio-recorded (with permission) and supplemented with interview notes to aid part 2 of the BNIM interview.

The following SQUIN was presented:

"As you know, I'm researching cross compliance, so can you please tell me your story of the project we were involved in, all the events and experiences that were important to you personally. I'll listen, I won't interrupt, I will take some notes in case I have questions, take your time and begin whenever you like".

Once apparent that the specialist advisor had completed their narrative, cue questions as prescribed in the BNIM method were asked. A follow up sub-session three was not necessary as the PhD researcher determined that she had gathered sufficient data. A particular deviation from the usual BNIM methodology involved providing the specialist advisors with an opportunity to ask the PhD researcher questions. Both specialist advisors availed of this opportunity. Post interview, the narratives supplied were transcribed in preparation for thematic analysis of the data. Additionally, for the purposes of anonymising the data, the PhD researcher decided to reference the first interviewed specialist advisor as Specialist A, with the second interviewee advisors referred to as Specialist B.

4.6 Progressing the Narrative Inquiry Learning Sub-system

4.6.1 Participant selection

In order to initiate the Narrative Inquiry Learning Sub-system, the PhD researcher purposefully selected four farm cases from the 129 potential farm cases who had supplied their contact details during the CCITP data collection. The four farm cases were chosen using an information-orientated case selection. This type of case selection involves inviting participation in research based on an expectation that the invited cases will offer useful and interesting information pertaining to the research question (Flyvbjerg, 2006). Two selection criteria were used: enterprise type and variation in attitude to cross compliance. The first criterion, enterprise type was chosen because while it clear that farming is a heterogeneous activity determined by an array of physical, social, economic

and cultural factors, there are at the same time, certain commonalities between particular enterprises (for example dependence on BPS in the case of dry-stock enterprises). The second criterion was chosen because of the evidence arising in the CCITP to suggest a significant variation between farmers in their attitudes towards the policy of cross compliance. To progress the interviewee selection, two farm cases per enterprise type were picked based upon a consideration of the participant's contribution to the CCITP. Enterprise type was determined by the location and type of cross compliance event attended by the CCITP participant. An additional fifth case was added to the Narrative Inquiry Learning Sub-system when it was discovered on verbal contact that one of the initially selected farmers, who was presumed to be a dairy farmer due to the event type attended, was actually a drystock farmer. This discovery required the selection of an additional dairy farmer from the farm cases.

It is important to note that particular cases selected for the Narrative Inquiry Learning System are not claimed as representative of any particular enterprise or perspective towards cross compliance, rather the intention of selecting these cases was to provide interesting accounts of farmers' experiences of cross compliance. It is acknowledged that all of the CCITP farmers who had volunteered their contact details would have provided an interesting account of their cross compliance experience. Unfortunately, however from a pragmatic perspective, it was not possible to interview all of the willing farmers and it was necessary to choose certain accounts. Table 7 details the particular CCITP contributions of the selected cases which was used in their selection as a farm case. This table also includes the pseudonyms attributed to the cases in the Narrative Inquiry Learning Sub-system, which will be presented in Chapter 6.

Table 7: The CCITP contribution of the selected case farmers

| | Enterprise type | Pseudonym | CCITP contribution |
|---|-----------------|----------------|---|
| 1 | Dry-stock | Noel | <i>"I think Teagasc are doing a great job in informing us in the details of cross compliance. And helping us to fulfil our obligations. I do think that farmer welfare also must be considered"</i> |
| 2 | Dry-stock | Dennis | <i>"I found the course informative and helped me brush up on what I had previously learned. I believe we must keep up with the changing times"</i> |
| 3 | Dairy | Frank and Joan | <i>"Booklet very practical checklist to use when assessing your own farm requirements. Can be used to prioritise what has to be done, what should be done and what could be done. Only had a nitrates inspection and everything went ok"</i> |
| 4 | Dairy | John | <i>"I keep what I consider good, functional animal remedies records in a diary in the dairy. Why should I have to transcribe them into the official animals' remedies book. I have more urgent jobs to do! Thanks"</i> |
| 5 | Dry-stock | Tony | <i>"The volume of regulation that has to be complied with is excessive. It is causing stress to farmers worrying about inspections. Solves very little as we did not have food safety problems to start with. Expecting a zero level of pollution from farms while giving discharge licences to County Councils and industry is unfair"</i> |

An acknowledged weakness of the case selection is that it could be argued that the participating farmers may have a pro-cross compliance bias due to their initial recruitment at cross compliance extension events. A similar limitation was reported by Hards (2012) in her study of individuals who had a pro-environmental approach to their climate change practice. Hards however rationalised that the stories of those individuals with a pro-environmental bias were a useful subject for a study of environmental values. Similarly, in this research, it is considered that the accounts of farmers who had voluntarily attended cross compliance extension events are interesting in their own right. It would however be useful that future research studies would make an effort to interview farmers who do not attend cross compliance extension events.

Following, the selection process, the identified farm cases were invited by telephone to participate in the BNIM interviews. This process involved the PhD researcher reintroducing herself to the farm case by reminding them of the particular cross compliance extension event where they would have previously met. She next outlined the objectives of the Narrative Inquiry Learning Sub-system, before asking the farmer(s) whether they would be willing to participate in an interview. On agreement, a suitable time and location was arranged. All of the farmers contacted willingly agreed to participate in the Narrative Inquiry Learning Sub-system.

4.6.2 BNIM interviews with farmers

Four out of the five BNIM interviews were conducted in the farmer(s) homestead. This approach follows Riley (2010) who suggests that the farmer's home is usually a convenient and relaxing research venue for the interviewee. Furthermore, he reports that the farmer's house will embody a material culture of the farm, allowing the interviewee to introduce artefacts into their narrative if they so desire. A fifth interview was conducted by telephone. This approach followed the advice of the farmer, who suggested that it would be illogical for the PhD researcher to travel the distance to his house, when he

could participate by phone. The PhD researcher considered that it was wise to agree to his logic.

All of the interviews were audio-recorded (with permission) and supplemented with interview notes in order to aid part two of the BNIM interview. Each farmer was asked to sign a consent form to indicate that they had been informed of the research protocol and were agreeable to participate in the research process as set out in this protocol (see Appendix I). The married couple jointly contributed to their BNIM interview. This production is a deviation from the usual BNIM interview technique, however the PhD researcher judged that as the pair operated as a farming team, that it would be inappropriate to ask them for separate interviews.

The six farmers were presented with the following SQUIN:

"As you know, I'm researching cross compliance, so can you please tell me the story of your farming since you started thinking about cross compliance, all the events and experiences that were important to you personally. I'll listen, I won't interrupt, I will take some notes in case I have questions, take your time and begin whenever you like".

Following the completion of their initial narratives, the farmers were asked cue questions as prescribed in the BNIM method. A part three sub-session was not necessary in any of the farm cases. Furthermore, each interview ended with an opportunity for the farmer(s) to ask the PhD researcher questions. Three out of the five farms cases availed of this opportunity. Post interview, the narratives were transcribed in preparation for thematic analysis. The individual farmers were also assigned pseudonyms for anonymization and data protection purposes.

4.7 Evaluating the CCITP and narrative inquiry learning sub-systems

This last research process of the PhD Learning System involved the purposeful use of multi-loop learning as a means to evaluate the insights arising from the CCITP Learning Sub-system and the Narrative Inquiry Learning Sub-system for answering the research question. Moreover the PhD researcher heeded the advice of Ison (2010) and consciously considered her own practice in terms of *'what it is that she did when she did what she did'* (adapted from p.50). She pursued this action for two reasons. Firstly, it was a way to learn from her own practice, while secondly, she believed that a conscious reflection on her own research practice would provide learning opportunities about the effectiveness of this practice. The following criteria were considered:

i. What was the purpose of the learning sub-system?

The question seeks to make explicit the original purpose of the learning sub-system. This question was asked because clear understandings of the original purpose of research action can help with determining the effectiveness of a research process in meeting its objectives (McTaggart, 1998).

ii. Did the learning sub-system work?

This question was concerned with understanding the efficacy of the learning sub-system in relation to how well it worked in terms of realising the purpose of the learning sub-system. This is a single-loop learning question, which allows the researcher to query how successful the research activities were in realising the purpose of the learning sub-system. This approach takes account of Korten (1980) who reports that the effective use of a learning process approach requires understanding that errors as well as successes are a *'vital source of data'* (p.498).

iii. Did the learning sub-system function efficiently?

This is a single-loop learning question concerned with exploring the efficiency of the learning sub-system. In particular, it seeks to understand how well the research activities functioned in realising the purpose and objectives of the learning sub-system. Its application involves collectively considering the methodology in use and the researcher's application of this methodology.

iv. What does the learning sub-system offer to enhance extension practice pertaining to cross compliance?

This final question was concerned with understanding the effectiveness of the learning sub-systems. It is a double-loop learning question that seeks to understand what insights arose in the learning sub-systems to inform the PhD Learning System and its concern with enhancing interactions between farmers, extension organisations and mandatory agri-environmental policy.

The findings arising from the evaluations of the CCITP and Narrative Inquiry Learning Sub-systems are provided in Chapter 7.

4.8 Chapter conclusion

This chapter gave an extensive account of the mechanics involved in using a learning process approach for pursuing the PhD Learning System. Its application revolved around the development of three learning sub-systems. The first learning sub-system involved an exploration of how to enhance the cross compliance extension service of Teagasc using insights generated from a research process, which followed the principle of PAR. Two particular types of experiential insights arose from this process. The first related to participant perceptions and preferences for Teagasc cross compliance extension service. The second related to the surfacing of a range of social difficulties with the application and enforcement of cross compliance. To better understand these social difficulties, the

next learning sub-system was concerned with understanding farmers subjective experiences of cross compliance and what these experiences might reveal for enhanced extension practices. The third and final learning sub-system involved the use of a multi-loop learning for determining the efficacy, efficiency and effectiveness of the CCITP and Narrative Inquiry learning subsystems for informing the PhD Learning System. The evaluations progressed also took account of the PhD researcher's practice when pursuing these learning sub-systems. The methods and processes taken in the learning sub-system were also extensively described to provide interested individuals with an opportunity to reinterpret the PhD researcher's actions and practice. The following chapters 5, 6 and 7 will provide the findings and learnings arising from the progression of the three learning sub-systems.

Chapter 5

The Cross Compliance Information and Training Project

5.1 Chapter introduction

Chapter 5 details the genesis, objectives, application and findings of the CCITP Learning Sub-system. This learning sub-system was developed to explore, how could using the principles of Participatory Action Research (PAR) provide interested and involved stakeholders with meaningful opportunities to contribute to a conversation about cross compliance extension practices. The learning sub-system focuses on the Cross Compliance Information and Training Project (CCITP) which was initiated in April 2013 as a learning intervention between the PhD researcher and two specialist advisors from Teagasc's Soils and Environment Programme. The project sought to investigate farmers' and other stakeholder perceptions of Teagasc's cross compliance extension practices with specific reference to the organisation's newly produced *Cross Compliance Workbook*. The project was guided by the metaphor of a 'conversation'. This choice reflected a desire to progress the CCITP in a way which would as Talbott (2004) advocates be *'inventive, continually escaping its previous bounds'* (p.43). A specific target was to develop insights with a potential for informing Teagasc about potential enhancements to its cross compliance extension practices. This chapter also takes account of the specialist advisors' perspectives on the CCITP. These observations were gathered towards the end of the project and are considered to significantly enrich the insights arising from the CCITP Learning Sub-system for informing the PhD Learning System.

5.2 Introducing the project

5.2.1 Genesis

The CCITP was brokered as a learning intervention between the PhD researcher and two specialist advisors from Teagasc's Soils and Environment Programme. This collaboration arose from a research interest held by the PhD researcher to pursue an investigation guided by the principles of Participatory Action Research (PAR), into a perceived 'problematic situation' in the agri-environmental policy arena. The particular CCITP

'problematic situation' was chosen as a result of an interest from the specialist advisors to learn about farmers' perceptions of the newly published Teagasc *Cross Compliance Workbook*. The specialist advisors had pursued the development of this workbook due to their belief that understanding cross compliance requirements was *"a headache for many farmers"* (Specialist B). The intention of producing a workbook as an extension support was to *"try and take the stress out of it, or some way, take the fear away from farmers around the whole area of cross compliance"* (Specialist B). Following some informal networking between the parties, the CCITP collaboration was agreed. On completion of the project, Specialist B indicated his satisfaction that the intervention had been brokered. He noted: *"well it was like any of these projects, you know you will always have a first draft and we didn't have the resources to go out and do extensive testing on it. It was a God send that you [referring to the PhD researcher] agreed to take this on as your project"*. Following agreement to progress a research process, the next stage was to formalise the process with mutually acceptable research purposes. The development of these purposes is described in Sub-section 5.2.2.

5.2.2 Project purposes

A project meeting was convened on the 15th of April 2013 between the PhD researcher and the two specialist advisors in order to reflect on potential purposes for the CCITP research process. This meeting entailed an informal discussion about the learning potential of the CCITP. Additionally, the PhD researcher provided an account of what she perceived the principles of PAR would add to the CCITP. She outlined that from her understandings, a PAR process would usually involve a group of people, concerned about or affected by an issue, coming together to take a lead role in producing knowledge about the issue, with an explicit intention to use the knowledge arising to devise a more desirable situation (Walter, 2006; Smith *et al.*, 2010; Pain *et al.*, 2012).

She further reported that she anticipated that the CCITP should seek to engage a range of involved and affected stakeholders to generate research insights. She explained that the research engagement should not be specifically limited to farmers but should also involve a range of participants, as identified from a stakeholder analysis of the problematic situation. The specialist advisors were satisfied with this proposal and related that they should be able to provide contact details for certain stakeholder groups likely to arise from such an analysis. Finally, the PhD researcher outlined that from her interpretation of using the principles of PAR, it would be important that the research engagement of the CCITP would be progressed in a way in which would provide stakeholders with meaningful opportunities to reveal their perceptions of the important matters affecting cross compliance extension practices.

The specialist advisors outlined that their preferred focus for the project was understanding farmers' perception of the *Cross Compliance Workbook*. They however acknowledged that the CCITP was a good opportunity to appraise whether farmers believed that Teagasc had done the 'right thing' by developing the workbook. They also noted an interest in improving their knowledge of the ways in which farmers' can understand and approach cross compliance and its extension. Furthermore, they indicated that they would be interested in better understanding how farmers learn about cross compliance and what their expectations for cross compliance extension services were. They reported a willingness to use a PAR approach as it had been outlined by the PhD researcher as it seemed to have a potential for surfacing interesting insights about cross compliance extension. The specialist advisors however reiterated that as the CCITP was an extension focussed project, it should be progressed using the worldview of farmers. They also stressed that farmers were the principal users of extension services and were therefore arguably the most important stakeholder category in the CCITP.

At the end of the project, Specialist B noted that he had perceived at its commencement that the purposes of the CCITP were to improve Teagasc's understanding of how farmers'

experienced cross compliance. He related that such understanding was necessary as *"we needed that different set of lenses to look at the whole issue of cross compliance, about farmers' attitudes to cross compliance and to try and build an insight"*. The specialist advisors also emphasised that the research process would need to be rigorous in its application. In particular, they surmised that in a respected scientific institution like Teagasc, it was essential that research insights arising from the CCITP would be recognised as credible by their peers. Following some deliberation on these matters, four research purposes were agreed:

- i. Investigate stakeholder perceptions of the *Cross Compliance Workbook*
- ii. Develop nuanced understandings about how stakeholders perceive Teagasc's cross compliance extension service
- iii. Use the CCITP findings to inform and potentially enhance the cross compliance support provided to farmers by Teagasc's cross compliance extension services
- iv. Use the research findings arising from the CCITP to inform the PhD Learning System

In order to realise these purposes, a close mutually supportive collaboration was agreed between the PhD researcher and the specialist advisors. There was however an expectation that the PhD researcher would independently pursue the research design, data collection and analysis. An account of the research process progressed is outlined next.

5.2.3 'Finding out' about the problematic situation of cross compliance extension practices

It is considered good practice in a learning process approach that prior to instigating actions to improve a perceived problematic, that the researcher will undertake a period of 'finding out' about the situation in order to understand the status quo (Korten, 1980; Checkland and Poulter, 2010). This process can also help the researcher to develop a

clearer sense of the nature of the flux which constitutes everyday life in the perceived problematic situation (Checkland and Poulter, 2010).

To achieve a process of 'finding out' in the CCITP, the PhD researcher undertook participant observation at a number of cross compliance extension events in the months of April and May in 2013. She also progressed some informal discussions with farmers and non-farmer stakeholders. In tandem, she undertook in association with the specialist advisors, a range of stakeholder analysis exercises to identify as much as was possible, those involved and affected by the policy of cross compliance. Combined, these processes provided her with a nuanced understanding of the nature of cross compliance extension in the Republic of Ireland. In the next Sub-section 5.2.4, the particular outcomes of the analysis and its influence on the CCITP are reported.

5.2.4 Reflecting on the stakeholder analysis process

Due to the use of a participatory inquiry paradigm and the participatory ethos of the CCITP, the PhD researcher sought to provide all of those involved and affected by the policy of cross compliance with an opportunity to participate in the project. To achieve this, she first needed to understand who these involved and affected stakeholders might be. She developed this understanding by undertaking a concerted period of stakeholder analysis in collaboration with the specialist advisors. A variety of methods from systems thinking and corporate project management were employed to conduct this analysis (See Sub-section 4.3.2). This mixed method approach related to concerns held by the PhD researcher with conventional stakeholder analysis processes. She was particularly aware of High and Nemes's (2009) contestation of the utility of conventional stakeholder analysis approaches when seeking to work with stakeholders on sustainability issues. The authors report that conventional methods are poorly equipped to take account of the various framings of 'sustainability' that will likely emerge when working with a diverse group of stakeholders. As an alternative to the use of conventional approaches, High and Nemes (2009) advocate for the use of systems thinking when conducting a stakeholder analysis of complex situations, as they allow for the surfacing of many different perceptions and framings of sustainability.

In the CCITP, a particular outcome of using the system thinking approaches of Soft Systems Methodology (SSM) and Critical Systems Heuristics (CSH) was a realisation by the PhD researcher that she was not seeking to mediate different opinions in the problematic situation of cross compliance extension rather that she was seeking to surface a range of perspectives in order to better understand and learn from the situation. Furthermore, while the process was complex, it was successful in its intention to identify a range of involved and affected stakeholders. To better understand the stakeholders identified, the PhD researcher visualised the emerging stakeholders using a consideration of how a farmer might utilise them for accessing information on cross compliance. This

process resulted in the development of a visual map of cross compliance information sources. This visualisation was animated and progressed through several reiterations with the specialist advisors. The PhD researcher also spoke informally to a range of stakeholders to ascertain their perspectives of the emerging map. Combined these processes helped the PhD researcher to refine the diagram into a visualised description of the different categories of stakeholders that a farmer may interact with in order to obtain information about the policy of cross compliance. A final visualisation is provided in Figure 16.



Figure 16: Diagram of cross compliance information sources

Moreover, using the diagram as a heuristic for understanding, allowed the PhD researcher and the specialist advisors to reflect on how the CCITP stakeholder engagement might be progressed. Following some deliberation on this matter, a consensus emerged that while it would be 'interesting' to progress engagement with each stakeholder category identified, it was likely that certain categories would be from a pragmatic perspective too difficult or cumbersome to actively engage with under the remit of the CCITP. This sentiment was determined as applicable to the following stakeholder categories: 'family, neighbours and friends', 'farm service providers' and 'social and other media'. It was

therefore decided that PhD researcher would only actively seek to engage with the following prioritised stakeholders categories: the appeals bodies, cross compliance enforcers, cross compliance information sources, farming media, farming organisations, political representatives, other organisations i.e. environmental NGO's, quality assurance schemes and marketing initiatives, and research and third level institutions. In the remainder of this thesis, this diverse grouping is for the sake of narrative clarity referred to collectively as the 'non-farmer stakeholders'.

Advisory comment on the process and outcome of the stakeholder analysis for the CCITP was primarily appreciative. In particular, Specialist B was enthusiastic about what the process had revealed. He commented specifically on the usefulness of the 'Cross Compliance Information Sources' map (See Appendix C). He reported, *"that map is so, so, useful, when you're designing a communications plan, if you're looking at how you are going to promote a particular, let's say the Workbook itself or the courses, all of those people need to be made aware that they are on and that they are available to farmers"* (Specialist B). He also reported using the diagram to explicate the stakeholder analysis process to colleagues, *"I presented that slide [map] actually at a number of different workshops that I was organising for the development of another services just to get peoples understanding of what can be done"*. He further related that visualising stakeholders in this way had helped promote understandings of *"the different relations between the different agencies"* and the *"different antagonisms that are here and the sort of potential partnerships that are there"*. He reflected that in this sense the CCITP analysis had created an improve awareness of the different worldviews on cross compliance. He noted: *"everyone has different perspectives as we have learned through that whole mapping exercise that you carried out, looking at all of the various, the kinda of social network of different players in the whole area of cross compliance"*.

In conclusion, two outcomes occurred as a result of the CCITP stakeholder analysis. Firstly, a prioritised list of CCITP stakeholders was agreed, while secondly the progression

of the analysis resulted in a process of learning about the different ways stakeholders can approach the policy of cross compliance. In the next Section 5.3, an account of the engagement taken with the prioritised stakeholders is provided.

5.3 Reflecting on the CCITP engagement process

The PhD researcher formally commenced stakeholder engagement for the purposes of data collection in early June 2013.¹⁷ The approach taken was evolving and purposefully conceptualised as a research conversation between the PhD researcher and the participants. Approximately 250 participants contributed to the conversation including 198 farmers, 26 non-farmer stakeholders, 20 farm advisors and 2 specialist advisors.¹⁸ The flexible nature of the approach taken makes it difficult to comment definitively on the meaningfulness of the engagement achieved. However, the following insights from the PhD researcher's perspective provide some impressions of the process.

Firstly, the PhD researcher argues that progressing face-to-face engagement with farming stakeholders was an important factor in the participation response. This claim is strengthened when the participation rates achieved as a result of the face-to-face engagement are compared with the low response from the more passive participation offered in the *Today's Farm* article (see Sub-section 4.5.2). A numerical comparison of the two approaches reveals that the face-to-face engagement resulted in 196 farmers from a potential of 621 participating in the CCITP, while the participation invite published in *Today's Farm* resulted in only two responses from the potential 40,000 Teagasc clients who receive this publication. This comparison suggests that face-to-face engagement with potential participants is more likely to yield higher stakeholder participation rates than more passive types of engagement such as participation requests in stakeholder publications.

¹⁷ The Open University's Human Participants and Materials Ethics Committee (HPMEC) granted formal ethical approval to this study on the 23rd May 2013, following their review of a prepared research protocol, which the Committee deemed to have met the requirements of the HPMEC (2006) Ethics Principles for Research Involving Human Participants.

¹⁸ The 198 farmers quoted includes two farmers who helped to pilot the CCITP research tools.

A second factor argued to be of relevance is the progression of the CCITP engagement as an informal interaction. In particular, the PhD researcher sought to avoid being an 'other' to the farmers attending the cross compliance events and she therefore actively participated in all activities. She consciously progressed this interaction with an intention of building a rapport with the farmers. She believed that building rapport was important, firstly to reassure potential participants that she was genuinely interested in learning from them. While, secondly she considered that if she were to try and interview some of the farmers at a later stage in the research, that the process would be more effective if the farmers were already somewhat familiar with her.

A third relevant factor regarding her engagement with farming participants was that she achieved a better quality experience using the '*Simple Comments Sheet*' (see Appendix D) than the longer '*Detailed Comments Form*' (see Appendix E). In particular, she considers that the '*Simple Comments Sheet*' was a more participatory research tool, in that it allowed the participants to contribute at the level of detail that they deemed as appropriate. In contrast, the '*Detailed Comments Sheet*' required the participants to input set biographical information in combination with their contribution on cross compliance and its related extension. The '*Detailed Comments Sheet*' was used on two occasions, firstly at the Ploughing Championships and later at a discussion group extension event. On reflection, the PhD researcher determines that the '*Detailed Comments Sheet*' while suited to the particular circumstance of the Ploughing Championships, was less satisfactory as a research tool at the discussion group event. In particular, she noted that there was a 'silence' from the farmers when filling out the sheet at the discussion group event. She had not experienced this 'silence' from participants when using the '*Simple Comments Sheet*'. Furthermore, she observed that none of the farmers who contributed to the CCITP using the '*Detailed Comments Sheet*' had provided their contact details. While, difficult to quantify what exactly caused this 'silence', it seemed to the researcher that a conversation marked by silence was possibly one that was not that enjoyable. It is

also significant that no farmer shared their contact details. This would appear to indicate that the farmers did not have much interest in pursuing the conversation. The PhD researcher was troubled by these observations and she relayed her concerns to the specialist advisors. Following some consideration on the matter, it was agreed that the remainder of the CCITP engagement should be progressed using the *'Simple Comments Sheets'*.

Finally, the PhD researcher acknowledges that she is not entirely satisfied with how she progressed engagement with the non-farmer participants. In particular, she observes that there was a considerable diversity from non-farmer stakeholders in relation to their interest and enthusiasm to participate in the CCITP. She notes that some stakeholders were extremely keen to participate, while others stakeholders, some of whom the PhD researcher would have determined as key stakeholders, did not respond to the invitation to participate in the CCITP. On reflection, the PhD researcher considers that potentially the mode of engagement used with the non-farmer CCITP stakeholders was too rigidly focused on answering the PhD research question. This focus likely limited the potential for non-farmer stakeholders to contribute additional insights (see Appendix F). In hindsight, the PhD researcher believes that a more open-ended approach similar to the *Simple Comments Sheet* could have resulted in an improved response rate from non-farmer stakeholders in the CCITP.

Conversely, in comparison to the PhD researcher's perspective, the specialist advisors appeared to be satisfied with how the CCITP engagement process was progressed. For example, Specialist A reported that the project had *"trawled wide enough in relation to all farm organisations and especially the farmers themselves"*. He further related that the CCITP engagement had worked with a wide range of stakeholders *"from all walks of farming life and organisations"* and *"all the cogs of Teagasc"*. He reflected that in this sense, he believed that the research process of the CCITP was *"a bit unique"*. Additionally, Specialist A noted that the PhD researcher had established a *"good*

relationship" with the Teagasc advisors. He noted; *"I think the advisors in general will come back to you because you built a good relationship with the advisors when you went out to do the PAR work with them as part of their groups"*. Furthermore, Specialist B reported that he believed that the CCITP engagement had sent *"out that signal to everyone, that Teagasc is ... ahh progressive, we want to get feedback, we want constructive criticism, we are open to that, were open to continuous improvement"*. Additionally, he related that the engagement had resulted in improved understanding from non-farmer stakeholders' about Teagasc and its function as an organisation. He reported that *"having stakeholders understand what we are trying to do and I guess there was a lot of empathy.... from other stakeholders... If that's the word... In that ... you know that cross compliance, the educational side, the importance of education to achieve the objectives of cross compliance"*. He remarked that developing this understanding was important for *"the likes of Teagasc who are there as the knowledge transfer agents, the educators, the support agency. It was important that we are able to present another side to cross compliance; that you are going to get change but you not going to get long-term change simply by regulation. There needs to be more than that, people need to understand the reason for particular requirements rather than simply saying 'well this is the way you have to do it'..."*. He also suggested that the CCITP engagement process may have resulted in a process of learning amongst the cross compliance enforcers. He reported in particular that he believed that the engagement had *"allowed for that break down, or that penny to drop amongst some of the agencies, that actually we maybe do need to take a more holistic approach to this, and carrot as well as stick"*.

Finally, two actions may be linked to the CCITP engagement process. Firstly, engagement with certain non-farmer stakeholders indirectly led to the circulation of a memo at a national level to raise awareness of the availability of *Cross Compliance Workbook* amongst local authorities. An action which subsequently led to a number of local authorities advocating that the *Cross Compliance Workbook* was a useful source of

information.¹⁹ Secondly, and as a direct result of CCITP engagement activities, the *Cross Compliance Workbook* was featured on a 2014 farming calendar from Clare County Council.²⁰

In the next Section 5.4, the findings arising from the CCITP engagement process are presented. This presentation includes commentary from the specialist advisors about their perceptions of the findings generated.

¹⁹ See for example: <http://www.mayococo.ie/en/Services/Environment/Farmers/> Last accessed 24-02-2015 11:49am

²⁰ <http://www.clarecoco.ie/water-waste-environment/publications/living-farmland-calendar-2014-19276.pdf> Accessed 24-02-2015 Last accessed 24-02-2015 13:39pm

5.4 The CCITP research findings

5.4.1 Preparing the research findings

The PhD researcher transcribed, compiled and analysed the data arising from CCITP engagement. Once she perceived that the data was in a comprehensible format, she circulated the research findings in a report form to the specialist advisors. Subsequently, a project meeting was convened in May 2014 to collectively consider the learning arising from the findings. This analysis approach was chosen because the PhD researcher considered that it would be inappropriate to ask the specialist advisors to make sense of the raw data. Specialist B confirmed this perception when he was asked in his interview whether he would have preferred to analyse the raw data, replied: *"no, it's not my job! (laughs)"*. He reported that even receiving a summary report of the research findings was *"a bonus"* as he *"wasn't really expecting that something would come out so soon, it was useful to have at that stage"*.

In the next sub-sections, the complete research findings of the CCITP are outlined. These findings relate to stakeholders perceptions of the *Cross Compliance Workbook*, cross compliance extension and cross compliance policy application.

5.4.2 The *Cross Compliance Workbook*

The majority of contributions received in the CCITP were related to stakeholder perceptions of the workbook. All of the farming participants' comments were affirmative of the usefulness of the workbook with the exception of a small number of farmers who expressed a preference to reserve their judgement until they examined the workbook in more detail. Table 8 provides an indication of the perceptions expressed:

Table 8: Farmer perceptions of the *Cross Compliance Workbook*

"There is great detail in the workbook. This will be a great help to me in going through any issues on our farm"

(Munster farmer/57)

"I find this booklet lays out wrongs and rights much clearly and the pictures are much helpful"

(Connacht farmer/36)

"New workbook an excellent idea for someone like me who lives in fear of these inspections at least now I have a baseline to compare my farm to"

(Leinster farmer/15)

"Workbook is a good start to point out issues of Cross Compliance on farm"

(Ulster farmer/16)

Additionally, some participants suggested certain enhancements. These suggestions included a request for a resources section with details of websites and videos related to cross compliance, and also a glossary of the technical terms that were used in the workbook. A dairy farmer also suggested that additional content was needed in relation to milking parlour specifications and dairy cow requirements.

A number of farmers expressed an intention to use the workbook. For example, one commented: *"looking forward to reading up your workbook and checking out with my farm records etc."* (Munster farmer/73). One farmer confirmed that he was already using the workbook: *"got this workbook at Open Day and working towards sorting out incompliant areas. The booklet is very helpful and very well explained"* (Munster

farmer/60). Moreover, the potential of the workbook to serve as a cross compliance support was poignantly highlighted by one farmer, who stated; *"book very helpful, I am recently bereaved and stressed out with all I need to do, so book will guide me as to requirements needed for SFP"* (Munster farmer/54).²¹

Non-farmer participants similarly gave an impression that they considered that the workbook was a worthwhile extension effort. This was particularly evident in comments from those participants with an enforcement role. One participant however perceived that the workbook needed to place a greater emphasis on farmers contacting their farm advisor when they detect compliance issues on their farm (Non-farmer/19). A number of enforcement participants also requested copies of the workbook for their use with farmers. One enforcer noted, that she believed the *Cross Compliance Workbook* would be useful to distribute to *"problem farms"* as the document was *"well laid out, clear and easy to use by non-technical persons"* (Non-farmer/24). A number of the non-farmer participants also provided ideas for additional technical content. These included suggestions that the workbook provide a more detailed elaboration of the potential risks of water pollution from farm activities. It was also suggested that there was a need for further information on the different aspects examined by cross compliance enforcers during farm inspections.

There was clear indication from a number of the non-farmer participants, particularly those involved in the enforcement of the cross compliance policy that they would like to collaborate with Teagasc in the preparation of future editions of the workbook. Additionally, it was suggested that Teagasc should seek to work with the farming organisations when preparing future editions. It was considered that having an input from both the farming organisations and the cross compliance enforcers would increase the frequency of use of the workbook amongst members of the farming community.

²¹ Basic Payment Scheme (BPS) was previously known as the Single Farm Payment (SFP)

5.4.3 Advisory comment on the *Cross Compliance Workbook* findings

As of March 2016, the *Cross Compliance Workbook* has not yet been revised. A new edition is however in developmental stages. This new edition is required to take account of the amendments to cross compliance policy under the CAP 2014-2020 programme. According to Specialist A, sourcing the correct legal information linked to the changes to the CAP is complex. He related that while certain information was requested from the relevant authorities that *"it is kind of stalled there at the moment"*. He further noted that there appeared to be less of an organisational impetus on cross compliance within Teagasc. He reported: *"when the project [the CCITP] started in 2013, there was a bigger onus on cross compliance in Teagasc. Cross compliance was a big part of the advisors workload; it is not as much now"*. He related that Teagasc was experiencing staffing difficulties and that *"the Environment KT Directorate is now tasked with delivering cross compliance information on depleted staff resources"*.²² Specialist A was however optimistic the CCITP findings may when formally published as a thesis: *"actually provide the impetus that we need to get more staff and resources on the ground and maybe a bit more funding for the Cross Compliance Workbook or something similar"*.

Specialist A also anticipated the CCITP findings would be used to enhance future editions of the workbook. He noted: *"It is going to improve the outlook or how the Cross Compliance Workbook will look in the future. That will make it more participative from a farmer's perspective and from an advisor's perspective"*. He related that there was also a potential to include the updated version of the DAFM Farmers' Charter in the workbook, as an approach to address some of the confusion regarding the application and enforcement of cross compliance. He noted: *"I would envisage that we would try and decipher that [the Farmers' Charter] for the farmers and include that as part of the Workbook"*.

²² KT = Knowledge Transfer

He also reported that in an ideal situation that the CCITP participants should receive the first copies of the new edition workbook, with an acknowledgement of their input in shaping the new edition. He suggested the following narrative could apply; *"Look thanks very much, this is the new edition that we have created based on your comments and you're one of the first to get it"* (Specialist A). He further suggested that ideally to continue the conversation, that these farmers should be asked for their evaluation of the new edition.

Similarly, Specialist B reported a satisfaction with the learning arising from the CCITP. He noted: *"it was great to get the feedback from farmers and to be able to feed that back into improving the actual booklet itself but also how we promoted the messages, the booklet, but also the message contained within it"*. He also emphasised the importance of ascertaining farmers' perceptions: *"it is important when you produce something like that, they are fairly live sort of document because the SMRs are changing and also a farmer's own needs are changing"*. He however noted with regret, that the current organisational restraints facing Teagasc had prevented the new edition of the workbook being developed: *"I would have liked if we had more time to invest in the booklet itself and to make more of the changes that were suggested"*.

5.4.4 Cross compliance extension

The impression gained from the farmers' contributions on the efficacy of the training received at cross compliance extension events was mostly positive. Table 9 provides an indication of the types of comments received.

Table 9: A sample of farmer comments on cross compliance extension events

"A very informative meeting and very interesting especially the chemicals storage facility also rutting by tractor wheels. I feel I have to give some attention to these things. Thanks very much".

(Connacht farmer/9)

"These courses are very helpful from Teagasc on cross compliance - especially all the photos shown of different yards & situations showing how we can comply & make simple changes to manage yards/sheds/storage".

(Leinster farmer/18)

"Have more meetings like today to make people alert to all the criteria".

(Munster farmer/19)

"The information I received at the course was very useful. Everything was well explained. Would need more time to study all the information that is needed to comply with all the regulations concerning farming at this present time".

(Ulster farmer/7)

Two farming participants were however critical of the training received. The first considered that *"there was too much emphasis on pollution in various forms, from land bale silage storage to sacrifice paddocks"* (Leinster farmer/1). While, a second participant reported that the presentation at the event he had attended had been *"very vague and short on detail. More attention to the main areas penalised and less emphasis on the other less relevant areas. In fairness, all areas are covered but we are aware of the basics at this stage i.e. need to keep records, nitrates, chemical storage etc. really need to*

concentrate on what to do to remedy the problem areas. Less presentations and more time for questions from the floor”(Leinster farmer/22).

In addition to comments on the training received, a number of farmers offered suggestions for enhancing Teagasc’s cross compliance extension practices. While, there were variations in the content of the suggestions received, the suggestions mainly related to requests for additional support and information in relation to the range of topics as presented in Table 10.

Table 10: Farmer suggestions to improve cross compliance extension practice

| | |
|------|--|
| i. | More regular cross compliance events to keep farmers up to date (36 farmers) |
| ii. | More on farm help in relation to cross compliance from farm advisors (11 farmers) |
| iii. | More information on farmer rights during and after cross compliance inspections (8 farmers) |
| iv. | Hold specific cross compliance record-keeping courses (8 farmers) |
| v. | More information in relation to nitrates, phosphorous and soiled water (5 farmers) |

A primary request was for Teagasc to provide regular cross compliance training events for farmers. This is interesting as the many of the non-farmer participants, particularly those with an enforcement remit, noted having little farmer led contact in relation to requests for the provision of cross compliance information and training. One non-farming participant however rationalised that this was possibly due to their *"significant regulatory role which probably results in farmers less willing to contact us directly”*(Non-farmer/24).

It is also significant that the majority of the cross compliance enforcers indicated that they would like to improve their engagement with farmers, particularly with non-compliant farmers. It was observable that some of enforcers believed that certain farmers may benefit from extra support, particularly those farmers who may be experiencing underlying social issues. One enforcer noted that; *"there is a certain group of farmers with social, health and other problems who may have significant poor farming practice issues who remain 'outside the system' so to speak. This group may require a different approach"* (Non-farmer/24). However from an analysis of the non-farmers contributions, it was apparent that the staffing constraints being experienced by public organisations were a significant barrier to improving the levels and intensity of engagement with farmers.

5.4.5 Advisory reflections on the extension findings

The specialist advisors appeared to be satisfied with the learning arising from the CCITP related to the extension of cross compliance requirements. Indeed, Specialist B reported that he believed that the CCITP had met his expectations in this regard. He outlined that *"I wanted us to get a deeper understanding of farmers views on cross compliance and certainly that has been met and it's a question of how we can actually use that knowledge and insight to develop new programmes and it's not just specific to cross compliance either its relevant to all of our programmes"*. Similarly, Specialist A noted that the CCITP had revealed useful information for Teagasc. He stated: *"I firmly believe that you are going to have some very positive outputs from it, that are not only relevant to research but to all the people that you engaged with. What I'd like to see is that this report would have some positive effect on how we as an organisation deliver public good type information work to the end-user"*.

Specialist A however highlighted that resource issues would likely be a factor in realising participant preferences to make improvements to cross compliance extension and he reported that *"we are pulled every which way"*. Additionally, Specialist B noted: *"I*

suppose like any other project, it's well-intentioned that people would say right yeah we need to produce this but we need to update it and keep it up to date and often that doesn't occur". Furthermore, Specialist B reported that developing additional cross compliance training courses, as was requested by some participants, would be a complex process. He outlined that: 'it is very difficult to design a course for all aptitudes and all the different knowledge levels about cross compliance. You will have some people, some farmers who are passionate about the environment and would be reading the latest reports on the [name of organisation] website and so on whereas you will have others that aren't as interested so it is trying to cater for those and maybe that is something that needs to be taken account for future courses...".

These observations are important for understanding the pragmatic potential of participatory processes for informing enhancing extension practices. For example, while the CCITP findings highlighted particular areas for enhancement and it appears that the specialist advisors were genuinely supportive of the need for these enhancements, the specialist advisors seem to be somewhat confined in their ability to enable all of the improvements reported on the current resources available to them. Yet, while the specialist advisors appeared to be limited in their ability to enable all of the participant suggestions, certain enhancements did occur as a result of the CCITP. An extension action for instance that is directly linkable to the participants' requests for additional support was the publication of an article by Hyde's (2014) on cross compliance in the *Today's Farm* magazine. This article entitled '*Getting set for on-farm inspections*' in the July-August 2014 provided up-to-date information on the DAFM notification processes for farm inspections. It also offered some compliance advice on the 'grey areas' of nitrates and soiled water. Both subjects were highlighted by farming participants in the CCITP as areas that they would like more information on (see Table 10). Furthermore, the publication of the article illustrates that the specialist advisors had listened and learned from the CCITP participants. Importantly, it also reveals the potential for participatory

learning interventions like the CCITP to effect real-time system improvements to extension practices.

5.4.6 Cross compliance policy

In addition to contributions on the workbook and cross compliance extension, approximately one third of the farming participants provided a commentary of the application and enforcement of cross compliance policy. These contributions encompassed a variety of sentiments. For example, one farmer reported that "*everything was all right*" (Ulster farmer/19). However, on balance, the majority of the contributions received in the CCITP related to negative sentiments and experiences of the application and enforcement of cross compliance. These contributions were insightful, in that while the PhD researcher and specialist advisors were aware that certain farmers had trouble with understanding the requirements of the cross compliance, it was not expected that so many farming participants would relate difficulties with the application and enforcement of the policy. Table 11 provides a sample of the perspectives shared.

Table 11: A sample of farmer perspectives on cross compliance

"I feel there are endless amounts of new regulations and hassle, year after year, for no financial gain to the farmer, which leaves farming not worth the work and effort"

(Ulster farmer/15)

"Find things very stressful"

(Connacht farmer/37)

"Hearing and reading about cross compliance is both frightening and daunting. From experience having regular inspections keeps you on top of things. The less stock you have, it is easier to pass"

(Leinster farmer/2)

"Have a huge fear factor. Have heard all the horror stories"

(Munster farmer/12)

Mixed perceptions were particularly evident with the enforcement of cross compliance policy and a number of farmers reported that while they did not take specific issue with the concept of inspections, they were concerned with the ways in which inspections were progressed. The following extract provide an example of this logic: *"the inspection is not really an issue as department staff are only doing their job and try to be as helpful as possible. It's the constant threat of not knowing when and where, that is the problem"* (Munster farmer/11). Conversely, one participant gave an impression that he felt that he had no choice but to try to outwit cross compliance enforcers: *"easy to lose grants if one does not comply. A lot of ridiculous rules such as >20m from drain (my fields are only*

40m wide). *System must be manipulated. Baffle them with bullsh*t*" (Connacht farmer/23). This farmer further related in his contribution that he believed cross compliance policy was being applied in such a way that *"small holders will be pushed out of existence"* (Connacht farmer/23). A similar fear was expressed by another participant who suggested that the *"small farmer is treated the same as big producer. Too many regulations. Young farmers are not going to take over home farms due to regulation"* (Ulster farmer/12). Equally, another participant questioned the logic behind the selection of farms for inspections. He suggested that a more logical alternative to the present situation would be that: *"inspections should be based on environmental issues in an area or tagging issues in the food chain and not be random"* (Connacht farmer/24).

Moreover, many farmers seemed to believe that the application and enforcement of cross compliance policy was outside of their control. In particular, one participant suggested that he believed that the *"rules seem to be constantly changing or at least the interpretation of them is changing"* (Ploughing Championships/2). While another farmer reported that a lack of clarity between farmers and enforcers during an inspection could cause difficulties at a later stage. He related that he had an *"unannounced inspection, it was not written down or made clear what information I was to submit afterwards. Many months elapsed before issues arose and I suffered penalties as a result"* (Leinster farmer/9).

A number of farming participants also suggested that cross compliance enforcement should be pursued in a way which did not automatically mean the farmer would receive penalties if a non-compliance issue was detected on their farm. It was highlighted that this alternative approach may potentially improve relations between enforcers and farmers. For example, one suggested that: *"Dept[artment] inspectors could give a warning if there is a problem and if the farmer doesn't put it right after a set time then he gets a penalty"* (Leinster farmer/12). Another participant noted the *"need for a yellow card system"* (Leinster farmer/23). Equally, a number of farmers reported that cross

compliance enforcers should engage with farmers with the intention of making the logic behind cross compliance more apparent. It was felt that this approach could lead to improved relations between farmers and enforcers. One farmer reported for example that he was aware that many of his colleagues viewed cross compliance: *"as a big stick, there to penalise. The rationale behind it is not well known. If greater emphasis is placed on informing and creating awareness amongst farmers on sustainability, bio security, diversity, environment and stakeholders in nature, responsible farmers will be moulded as opposed to compliant ones"* (Connacht farmer/15). While, another farmer emphasised *"the Department should try to make farmers view the regulations as a means of progressing their farm yards, to make for better working conditions, and also as places to produce cleaner healthier produce"* (Leinster farmer/6).

Conversely and as noted in Sub-section 5.4.4, there seems to be a desire amongst certain cross compliance enforcers to improve how they interact with farmers. Many enforcers considered that improving and increasing interactions between farmers and enforcers had the potential to not only improve farmers' awareness of the logic of requirements but that it may also improve their awareness of the objectives of the inspections. One enforcer noted that *"through education and awareness it should be emphasized to farmers that the main objective of [name of authority] inspections is to improve water quality and protect the environment through positive changes where required and awareness of farm practices"* (Non-farmer/19). Similarly, another enforcer noted that improved informal interactions between farmers and enforcers could allow for *"positive proactive steps rather than reactive negative steps"* (Non-farmer/4).

At the same time, there was an impression from the cross compliance enforcers that they considered that farm inspections were a necessary deterrent against non-compliant practices. In particular, it was argued that farm inspections ensured that those farmers who consciously make an effort to be cross compliant were not treated the same as those farmers who knowingly undertake poor farm practices. One participant related: *"there is a*

need for both the carrot and the stick, as farmers who undertake measures to reduce the environmental impacts of their farm should not be at a disadvantage to their neighbour who does not undertake these measures" (Non-farmer/15). Similarly, another participant related that: *"enforcement and restrictions would always have a role as there are always differences in cooperation and the application of rules and regulations"* (Non-farmer/22). However, she clarified that *"it is often better to work with the farmer to solve the problem"* as they *"may not have been aware that they were in breach of a law"*. She however stressed that any indication of an intent to pollute by a farmer would be *"frowned upon and would be taken seriously"* (Non-farmer/22).

5.4.7 Advisory reflections on the application and enforcement findings

It is evident from the findings of the CCITP that the application and enforcement of cross compliance policy is an emotive issue for many farmers. This creates a challenge for extension organisations particularly in relation to understanding their role in improving this situation. For example, Specialist A reflected that while he considered that findings of the CCITP had the potential to contribute towards forming part of a Teagasc's submissions on some recent [named] policy calls, he concluded that *"Teagasc would say that they won't get involved in that political type of storm"*. He further alluded to a perception that some of the issues raised by the farmers about the application and enforcement of the policy of cross compliance in the CCITP were potentially outside of the remit of Teagasc's extension services. He related in particular that he was unsure whether some of the issues highlighted were a *"Teagasc focus or Department of Agriculture focus"*. However at the same time he suggested that *'It's possible that the type of answers especially in your project may, when you do eventually have outputs on it, may have impacts on how policy is formulated ... and it may focus the policy makers into being more.... would consider the farmers and maybe their inspectors in how they approach things'*.

Moreover, when asked as to whether he considered that the CCITP engagement had any influence over those stakeholders with a role in the application and enforcement of cross compliance policy, he did not seem overly convinced that project had had any such influence. He reported: *"look, we don't know, what we don't know is, did it have any impact on the Rural Development Plan changes last year or the Charter of Farmer Rights. We don't know, they never came back to us and said 'look give us a bit more information on this', they may have made a couple of suggestions or acknowledgements on the day but ..."*.

These observations are significant as they raises questions as to what impact extension organisations can realistically be expected to achieve in relation to mediating the concerns raised by participants in participatory research and extension processes. However, at the same time, it is possible that extension organisation may be able to implement some positive enhancements. For example, Specialist A related that he believed that it should be possible to include information of the updated version of the DAFM Farmers' Charter in any new editions of the workbook. He felt that including this content might help address some of the confusion that certain farmers had about their rights before, during and after cross compliance inspections. He noted *"I would envisage that we would try and decipher that [the Farmers' Charter] for the farmers and include that as part of the workbook"*.

5.5 The dissemination process

5.5.1 Dissemination purpose

Returning research findings to the participants that created them is considered to be an ethical imperative in participatory research (Fals-Borda, 1987; McTaggart, 1998). Pretty (1995) also reports that dissemination of research findings can help improve the validity and credibility of the findings through the provision of opportunities for stakeholders to either confirm or contest the findings stated. A further dissemination intention in action

research influenced interventions such as the CCITP is that the findings may help engineer situations that enact positive change (Brydon-Miller *et al.*, 2003).

In the CCITP, two dissemination approaches were employed: participant dissemination, and academic and practitioner dissemination. Participant dissemination involved the development of the research update referred to as the *Cross Compliance Workbook Update* (Appendix G) and the contribution of CCITP findings to an article titled 'Getting set for on-farm inspections' in the July-August 2014 edition of Teagasc's client magazine *Today's Farm* (Hyde, 2014). Academic and practitioner dissemination involved the presentation of the findings of the CCITP using academic posters and papers at relevant conferences and seminars (see Appendix H). Both dissemination processes are described in further detail in the following sub-sections.

5.5.2 Participation dissemination

The principal mode for participant dissemination was the production of a research report called the '*Cross Compliance Workbook Update*'. The development of this publication involved a co-production between the PhD researcher and the two specialist advisors as described in Sub-section 4.5.5. The report was progressed through a number of iterations before a final content and format was determined. Once was agreed, the report was circulated to all participants who had provided their contact details.

The distribution of the *Cross Compliance Workbook Update* is considered to have provided participants with an opportunity to evaluate the 'new' knowledge created through the CCITP. Moreover, a request for their feedback on the 'new' knowledge contained in this report was explicitly included. In total, five non-farmer participants and one participant farmer responded to this request. All of this feedback was received by email. Its content included commentary from two non-farmer stakeholders, who while having informally assisted the PhD research with the 'finding out' stage of the research process did not subsequently formally contribute to the CCITP data collection. The first of these

stakeholders, who had an advisory role, remarked that he believed the update was an informative document, which provided a good overview of the CCITP. The second stakeholder who also had an advisory role highlighted certain limitations with the CCITP research process. She emphasised in particular, that the PhD researcher should be mindful that the farmers who had voluntarily attended cross compliance training events were more likely *"the most progressive, larger, business orientated and probably educated of the farming community and the one who are most likely to use and understand the booklet"*. She suggested that in order to seek a more balanced perspective that it would be prudent for the CCITP to work with those farmers who do not usually attend cross compliance training events in order to ascertain their perceptions of the workbook.

The commentary from the other four stakeholders (all formal CCITP participants) was primarily appreciative of the update. Moreover, there were indications in their commentary to suggest that a level of social learning had been achieved as a result of the dissemination process. For example, a Teagasc advisor noted that: *"hopefully we advisors can learn from some of the farmers' recommendations"*. Similarly, a cross compliance enforcer noted that she had shared the update with ground staff responsible for undertaking inspections. Moreover, in his commentary on the CCITP, Specialist B reported that he believed that sharing the *Cross Compliance Workbook Update* with the non-farmer stakeholders particularly the cross compliance enforcers was an important action. He suggested that: *"from the agency level, I would say that they got the most benefit from it, because it informed them what farmer preferences were or what they liked and how they liked to consume this type of information, because often times we do projects and not have interim results or presentation of interim results"*. He also noted that the timing of the circulation of the update was crucial: *"I think it was important that it happened then as well than now rather than leaving it till now because that sort of a year and half down time, two years down time, I'm sure plenty of the agencies have, adjusted their*

view, certainly changed their views on cross compliance as a result of that research” (Specialist B). Additionally, when he was questioned as to what the farming participants would have thought when they received the report, he noted: *“I think it was important for those people, particularly if you are going back to them again, that they are kinda shadowing the project almost, that they are participants rather than just a sample”*. Furthermore, Specialist B reported that the *Cross Compliance Workbook Update* was *“a very practical document. It gave, you know, a good summary of your sort of findings to date. It was a real departure I would say from most research projects to actually give the sample feedback of what the overall responses were”*. He further noted that the development of the report likely contributed to the maintenance of positive stakeholder relations which he reiterated was important in a participatory project like the CCITP. He noted: *“this is a participatory action research project, so you are depending on the input of a lot of stakeholders, individuals and yeah it is important to keep them on board, to keep them informed as the project progresses”* (Specialist B).

A second element of the participant dissemination was the inclusion of certain findings from the CCITP in a magazine article entitled *‘Getting set for on-farm inspections’* (Hyde, 2014) in the July-August 2014 edition of *Today’s Farm*. This article provided details of the CCITP together with a short summary of the findings. The PhD researcher’s contact details and an invitation to participate in the CCITP were also included. The outcome of this dissemination approach was however limited. Particularly, when it is considered that from the potential 40,000 clients who could have responded to this dissemination, only two farmers made contact with the PhD researcher following its publication.

5.5.3 Academics and practitioner dissemination

Two aims were sought from the academic and practitioner dissemination of the CCITP findings. Firstly, it was believed that presenting the findings to knowledgeable audiences would serve as a means to improve the validity of the research observations made in

relation to the findings. Secondly, the process of CCITP dissemination was viewed an opportunity to potentially enable changes to the wider application and enforcement of the policy of cross compliance.

i. Improving research validity

This first aim to enable a process of 'peer or colleague checking' is advocated by Pretty (1995). In this research, it was also employed as a means to reflect on whether the PAR aspirations and academic rigour of the CCITP were achieved. The process involved the presentation of the findings at seven academic and practitioner events (for details of the events attended please see Appendix H). A range of useful research insights were garnered from this process. For example, following a presentation of the research findings at the Sociological Association of Ireland Postgraduate Student Conference in 2014, an audience member reported that it was evident from the PhD researcher's presentation that the CCITP was a collaboration between a government organisation and a university. The audience member related that she was making this observation because she perceived that the PhD researcher was less critical of environmental sustainability issues affecting the Irish agricultural sector when compared to the previous speakers in that session. The audience member suggested that possibly this perspective may relate to the PhD researcher's relationship within the research context. The PhD researcher considered this insight was useful and it prompted her to reflect upon whether working with organisational partners in participatory projects can potentially limit the development of critical insights about the problematic situation under observation.

Other audience observations during the dissemination process tended to focus on the personal aspects of the CCITP participants with numerous queries about the participating farmers' literacy levels, access to the internet and their physical location. Further questions focussed on the application and enforcement of cross compliance, with specific queries asked about correlations between the likelihood of an inspection and a farmer's

interest in sourcing cross compliance information. Questions were also asked about the participatory aspects of the CCITP with specific queries asked in relation to how farmers' perspectives and suggestions would be used to enhance the workbook.

ii. Enable action

A second aim of the dissemination was to enable actions that might improve the problematic situation of cross compliance extension. Such an action intention is expected from PAR projects (Heron and Reason, 2006; Kindon *et al.*, 2007; Pain *et al.*, 2012). In the CCITP, it is considered that this aim was most likely achieved as a result of the practitioner dissemination at the National Agri-Environment Conferences in 2013 and 2014. This annual conference is attended by a mixture of policy actors, advisors, private consultants and farmers. The first presentation of the CCITP findings was by Hyde at the 2013 National Agri-Environment Conferences. This presentation primarily focused on providing an overview of Teagasc's cross compliance training program (Hyde, 2013). However, the presentation also made specific reference to the findings arising from the CCITP stakeholder engagement at the 2013 Ploughing Championships and in particular to the difficulties that some farmers reported to be experiencing with the application and enforcement of cross compliance. Hyde highlighted that there appeared to be a need for improved collaboration between cross compliance policy stakeholders and farmers. Hyde's presentation seemed to resonate with the audience and in the subsequent 'questions and answers' session, a number of contributions were made in relation to the presentation by audience members. For example, one person who identified himself as a member of a farming organisation, highlighted that in his mind cross compliance was "*about spending money, farmers are aware of the legislation, it's often the cost of complying that's the issue*". Another respondent emphasised that information about cross compliance needed to be more '*farmer friendly*'. Additionally, a number of audience members suggested that it would perhaps be progressive for Teagasc and relevant agencies to work together to produce a cross compliance extension courses for farmers. In response to these

comments, a government official indicated that potentially if such a course was devised, that a certification of attendance could be used towards reducing a farmers' likelihood of being selected for a farm inspection. All of these suggestions were welcomed by Hyde however he noted that in a time of budgetary restraint that the development of new courses would be subject to the approval of management and a consideration of the costs involved.

The second presentation of the CCITP findings at the National Agri-Environmental Conference was made by the PhD researcher Seale (2014). Her presentation was part of a multi-session with three other doctoral students. This dissemination action may also have created additional learning about cross compliance and its related extension. This assertion is related primarily to an observation from a private advisor in the 'question and answer' session post-presentation, in which he noted that while the *Cross Compliance Workbook* was a useful extension support, he considered that many farmers were unaware of its existence. He suggested that it would be important for Teagasc to endeavour towards providing every farmer in Ireland with a copy of the workbook or at the very least ensuring that the workbook was easily accessible online. He further reported that while he acknowledged that keeping up-to-date with the requirements of cross compliance was difficult for farmers, he reported that many farm advisors also found it difficult to be fully aware of all the requirements of cross compliance. These comments appeared to resonate with the audience who indicated their approval with a round of applause.

Finally, it is noted that while the CCITP findings were widely disseminated, it is difficult to attribute any specific actions to have arisen because of this dissemination process. Arguably, it is only possible to surmise that the CCITP may have added to the wider cross compliance conversation in that the findings of the project were brought to the attention of an audience with an ability to influence the application and enforcement of cross compliance policy.

5.6 Advisory reflections on the research approach of the CCITP

Both specialist advisors indicated an approval of the PAR approach taken in the CCITP. In particular, Specialist A suggested that using the principles of PAR to guide the inquiry had *"allowed farmers to engage with what they thought"*. He also reported that while he had not been wholly convinced at the start of the project, that the PAR approach would reveal useful insights. He noted: *"I had my reservations about would it get the response you wanted, but like as you said, when they were asked to think about it and weren't led by a question ... we probably have highlighted an area that we need to focus on"*. He further elaborated on the creation of the unanticipated insights about cross compliance application and enforcement by saying that *"the PAR type of thing, allows for a more open discussion that may bring up issues that we obviously didn't think were as important, things such as the stress and the fear factor"*.

Similarly, Specialist B indicated a satisfaction with the PAR approach taken. He felt that there were significant opportunities for Teagasc to learn from this approach. He related: *"we have a lot to learn from the work that you have done and lot to learn from the whole sort of discipline of social science and learning and social learning"*. He also reported that PAR allowed for an *"iterative type research"* into the *"testing of a particular technology"*. He outlined that generally *"we don't have the luxury of doing that with all of our technologies"*. He further reported that the CCITP, *"had raised a number of questions for us as well as to how we do our business and also how we get feedback from farmers"*. He noted that while Teagasc had an Evaluation Officer who was responsible for evaluating extension processes, these evaluations were *"only kind of done on a sample basis"*. Specialist B in particular remarked on the action intention of the CCITP, which he considered was a significant divergence from the more usual approaches taken in conventional research studies. He related that *"a lot of research projects are sort of observational studies"* whereas as the CCITP was *"actually making changes or suggesting changes along the way and so it was a different type of involvement compared to other*

projects I have been involved in, where they were more kind of looking at the study group”.

It is also noted that while the specialist advisors seemed to appreciate the PAR approach taken, that they did acknowledge limitations with the application of the approach. For example, Specialist A reported, that he considered that PAR was a specialised technique. He indicated that it was *“hard to master, it’s different from a survey type based research, in that you’re asking farmers for comments and farmers will more than likely will not comment unless prompted”*. However, he noted: *“the feedback from it is probably more useful as to how to improve the next steps, whether that be for whatever project you’re doing”*. He also reported that allowing farmers to *“comment unprompted”* had surfaced *“more of the social interactions of cross compliance and inspections than if you had gone with a survey based approach”*. He related the CCITP findings had highlighted the *“need to look at methodologies going forward, how best to deliver [knowledge transfer] information to the farming public on a depleted staff resources”* (Specialist A). He also noted a surprise that the PAR approach was not used more often within Teagasc. He considered that it potentially may relate to how the *“data is collected and analysed”*. However, he felt that when producing *“research output based materials”* that it was important for Teagasc to understand the perceptions of *“the end-user”*.

In addition, Specialist B noted: *“I guess it is the sort of project that because of the iterative nature of it, you are not sure where you are actually going to end up, that has its benefits but also has its challenges in terms of your ability to chart out where you are going”*. He further related that when he was thinking about the PAR approach he had to *“get myself into a different place when I start talking about it, it’s just a different perspective, It’ is just a different way of looking at, assessing a project, rather than simply looking at how many people attended and what was the ratings on the Likert Scale ... of approval”*. He also highlighted that due to the novelty of the research approach of the CCITP, that there was a particular onus on the PhD researcher to ensure that the

research findings arising were considered as valid by the research and policy community. He further outlined that it was important that the CCITP would be recognised as "*a scientifically robust process*" and that "*we can stand over it and say these are findings that have been validated*".

5.7 Identification of a research focus for the Narrative Inquiry Learning Sub-system

It was evident from the findings of the CCITP and as it has previously been reported in the literature that farmer engagement with cross compliance is complex with multiple contextual and emotive factors known to impact (Juntti, 2006; DEFRA, 2009; Juntti, 2012). This complexity was revealed in the CCITP, particularly in relation to the anxiety expressed by some farmers with the application and enforcement of the policy of cross compliance. The revealing of these findings were enabled due to the use of a PAR approach which had encouraged participants to share any additional thoughts, suggestions or concerns that they believed might be significant for the CCITP. A large number of farmers availed of this opportunity, to comment on the anxiety and stress that they were experiencing in relation to the application and enforcement of cross compliance (see Sub-section 5.4.6). Although, the PhD researcher and the specialist advisors were aware that some farmers were experiencing difficulties with the enactment of cross compliance, it had not been anticipated that issues with the application and enforcement of cross compliance would be so prominently expressed by farming participants. Whilst reflecting upon these unexpected contributions, the PhD researcher observed that little previous research has sought to investigate at any meaningful level, how the policy of cross compliance can impact upon the lives of the farmers who are required to abide by these requirements. This distinct lack of in-depth accounts of farmers experiences of cross compliance was a surprising omission and it seemed to the PhD researcher that it would be useful for extension organisations like Teagasc to have more nuanced appraisal of the ways in which mandatory agri-environmental policies like cross compliance intersect with

farmers' subjectivities. The next phase of the PhD Learning System was therefore commenced with an intention to address this research gap. It was achieved by returning to work with a select number of CCITP farming participants in order to develop rich personal accounts of the ways in which social phenomena relates to cross compliance.

5.8 Chapter conclusion

This chapter detailed a range of insights arising from the CCITP to inform the cross compliance extension practices of Teagasc. The CCITP arose from the identification of a problematic situation in which some farmers were considered to have difficulties with fully understanding the requirements of cross compliance. Two specialist advisors from Teagasc had sought to improve this situation and had purposefully developed a new publication called the *Cross Compliance Workbook*. This document detailed the requirements of cross compliance using a plain English approach. A particular intention of the CCITP was to investigate stakeholders' perceptions of this new workbook. The specialist advisors were specifically interested in understanding whether farmers and other stakeholders believed that organisation had done the 'right' thing by developing this workbook. The findings of the CCITP would suggest that majority of the participants believed that Teagasc had done the 'right' thing by developing the workbook. In addition to insights on the workbook, the CCITP also revealed a range of recommendation about how Teagasc could enhance its extension practices. These insights were appreciated by the specialist advisors who indicated that they would take an account of these findings when developing future extension supports and practices. A further significant outcome of the CCITP was the revealing by many of the farming participants that they had experienced emotions of fear, stress and anxiety when engaging with cross compliance. A number of farmers also provided recommendations for enhancing the ways in which the policy of cross compliance is applied and enforced. These insights on the application and enforcement of cross compliance added richness to the data as they reveal potential factors affecting the realisation of the requirements of cross compliance across the agricultural sector. Both the PhD researcher and the specialist advisors were concerned by these insights, yet at the same, it was not clear as to what actions extension organisation can take to improve this situation. In particular, the specialist advisors noted limitations with their ability to bring about changes to the ways in the policy of cross compliance is

applied and enforced. This is a significant insight, which affects the advocacy of participatory approaches for informing extension practices related to mandatory agri-environmental policy. In particular, it suggests that there is a need for caution when seeking to use participatory approaches for surfacing participant expectations and recommendations for implementing changes to mandatory types of policy. On the other hand, this chapter acknowledges that CCITP was successful in revealing useful insights about cross compliance and its extension practices and more so that the CCITP enabled a process of social learning between the participants involved. Furthermore, the specialist advisors contributed to the development of this learning by highlighting the findings of the CCITP in practitioner publications and conferences. Equally, the learning arising from the CCITP Learning Sub-system prompted the PhD researcher to undertake a process of narrative inquiry for the purposes of developing improved understandings of the various social dimensions of cross compliance as raised by participants in the CCITP. This is the focus of the Narrative Inquiry Learning Sub-system, which will be reported in the following Chapter 6.

Chapter 6

Exploring farmers' subjective experiences of cross compliance

6.1 Chapter introduction

This chapter presents the findings of the Narrative Inquiry Learning Sub-system. This inquiry was progressed with an intention to develop nuanced appraisals of the ways in which farmers' subjectivities intersect with the requirements of cross compliance. The research followed the guidance of Talbott (2004) that *'the point [of a conversation] is not to pronounce any landscape good or bad, but to ask after the integrity of the conversation it represents'* (p.6). With this logic in mind, the Narrative Inquiry Learning Sub-system was perceived as a learning opportunity for understanding how the participating farmers experienced the policy of cross compliance. Five farm cases were purposefully chosen from the sample of CCITP participants who had indicated a willingness to further participate in the PhD Learning System. The five cases were selected taking an account of the farmer's contribution to the CCITP and their enterprise type. There was an expectation that the selection of these criteria would reveal a diversity of perspectives in the Narrative Inquiry Learning Sub-system. It was further theorised that the conscious surfacing of a diverse range of subjectivities and experiences would inform an improved knowledge of the social, economic, technical and environmental phenomena affecting farmer inter-relations with the policy of cross compliance. From an extension perspective, it was anticipated that developing nuanced appraisals of the ways in which farmers can experience cross compliance would enable learning opportunities with a potential for informing enhancements to extension practices related to the mandatory policy of cross compliance.

6.2 Biographical information

In the following section, short biographies of the participating farmers are provided. This information is summarised in Table 12.

Farmer biographies:

- Noel farmed approximately 85 hectares on a full-time basis in Connacht. He had cattle, sheep and tillage enterprises. He was married with young children. He was aged between 45 and 55 years of age. Noel was particularly concerned by what he perceived was a neglect of farmer welfare considerations in the application and enforcement of cross compliance.
- Dennis farmed approximately 60 hectares on a full-time basis in Connacht. He had cattle and sheep enterprises. He was married with older children. He was aged between 65 and 75 years of age. Of all the participants, Dennis appeared to be the least stressed in relation to how he engaged with cross compliance. Indeed, Dennis considered that cross compliance was an indication of progression in the industry.
- Tony farmed approximately 75 hectares on a full-time basis in Munster. He had a sheep enterprise and some tillage. He was married with older children. He was aged between 55 and 65 years of age. Tony was extremely critical of certain aspects of cross compliance. His criticism however appeared to be informed criticism as he displayed a good understanding and awareness of the requirements of the policy. He also seemed to possess a good knowledge of the current environmental issues affecting the agricultural sector.
- John farmed approximately 60 hectares on a full-time basis in Munster. He was a specialist dairy farmer. John was married with no children. He was aged between

65 and 75 years of age. John had a difficult time due to illness when cross compliance was first introduced. He acknowledged that although it took him a period to get over this illness, once he was in good health again, he set about becoming compliant with the regulations. John was critical of certain aspects of cross compliance but overall appeared to support the principles of the policy.

- Frank and Joan jointly farmed approximately 65 hectares in Munster. Frank farmed on a full-time basis. Joan due to certain work commitments worked away from the farm at times. Frank and Joan were primarily dairy farmers but also have a beef enterprise. Frank and Joan were married with older children. Both were aged between 45 and 55 years of age. The couple appeared to take great pride in striving to be cross compliant and were particularly proud of their high performances in the Bord Bia Quality Assurance Schemes.

Table 12: Overview of farmer biographies

| Name* | Location | Type | Enterprises | Size | Age | Marital Status | Children |
|--------------|-----------------|------------------|------------------------|-------------|------------|-----------------------|-----------------|
| Noel | Connacht | Full-time farmer | Cattle, sheep, tillage | Circa 85 HA | 45-55 | Married | Yes |
| Dennis | Connacht | Full-time farmer | Cattle & sheep | Circa 60 HA | 65-75 | Married | Yes |
| Tony | Munster | Full-time farmer | Sheep and some tillage | Circa 75 HA | 55-65 | Married | Yes |
| John | Munster | Full-time farmer | Specialist dairy | Circa 60 HA | 65-75 | Married | No |
| Frank | Munster | Full-time farmer | Dairy & cattle | Circa 65 HA | 45-55 | Married to Joan | Yes |
| Joan | Munster | Part-time farmer | As above | As above | As above | Married to Frank | As above |

* Pseudonyms

6.3 Farmers' subjective experiences of cross compliance

6.3.1 Outline of the findings

The principal themes arising from the Narrative Inquiry Learning Sub-system were: farmers' perceptions of the Basic Payment Scheme (BPS) and its link with the financial viability of farms; the link between the BPS and cross compliance; the 'realities' of farming; the practice of cross compliance; cross compliance and its relationship with the 'good' farmer, farm administration issues, the interrelation between cross compliance and farm practice, cross compliance application and enforcement, and agricultural extension. A detailed elaboration on each theme is presented below.

6.3.2 The Basic Payment Scheme and the financial viability of farms

All three drystock farmers highlighted the importance of the BPS for maintaining the economic viability of drystock farms. Their narratives surfaced a conception of the BPS as a policy approach to ensure that drystock farmers remained farming economically unviable holdings. Noel stated that he believed the BPS was there *"only really to support unsustainable business, like agriculture"*. Tony considered the BPS was given to farmers *"to sustain an unsustainable business in global terms"*. While, Dennis similarly outlined *"the purpose of the Single Farm Payment is to compensate for the short fall of the prices"*.²³ Both farmers indicated a preference for farming without having to be being reliant on the BPS. Noel stated: *"I wish there was no need for grants, because it would mean that you would get, what you should be getting for your beef for starters or whatever and you wouldn't feel that you were getting something for nothing"*. Dennis also noted that most farmers would prefer to *"get a good price for your product and don't mind with subsidies"*. Dennis and Tony both reported the BPS was crucial for maintaining the household viability of many drystock farmers. Dennis reported knowing farmers *"crying out for that payment"*; while Tony observed that he aware that some farmers were

²³ Basic Payment Scheme (BPS) was previously known as the Single Farm Payment (SFP)

dependent on it *"to put kids through college"*. Conversely, he suggested that not all drystock farmers sought to maximise their potential economic returns from farming and he felt some individuals were *"happy out, they have enough"*. The narratives of the dairy farmers in contrast to the drystock participants did not overtly refer to the BPS as an economic support for farm viability. This is unsurprising as dairy farmers in Ireland tend to have higher incomes and are assumed to be less reliant on direct payments for farm viability (Hanrahan *et al.*, 2014). The narratives of the dairy farmers did however indicate that financial concerns were not solely a concern of the dry-stock enterprises. John in particular noted having to borrow *"money for necessary farm buildings and some of the money for the house"*. He related that his situation was *"tight at the moment you know because milk price has gone down a bit, income down, a couple of expenditure items during the year that I didn't bargain for"*.

Farm viability was also not solely narrated as being dependent on the support of the BPS. It also related to the low financial gains from the practice of farming. Noel stated that he found trying to keep his farm financially viable was a stressful process. He noted that in his case enlarging his farm operation was not an option: *"I am not getting bigger, I can't do it, I'd kill myself, I wouldn't be able to pay for it either"*. Similarly, Tony highlighted that he believed that the overall financial difficulties experienced by farmers, particularly dry-stock farmers impacted on their ability to abide by the requirements of cross compliance: *"a lot of these problems [cross compliance issues] require money, it's just kind of juvenile really you know kinda, to ask people to make one and one makes six"*.

Moreover, Joan related that some farmers found that the administration processes associated with farm improvement grants were too complicated. She felt that *"the grants system maybe should be customised to see how it could be made more farmer-friendly for the small job or the partial job"*. She also considered that there should be a certain prioritisation of funds towards non-compliant farmers. She acknowledged that this suggestion would likely be a contentious issue amongst those farmers who had already

invested heavily to improve their farm compliance levels. She however felt that improving the ability of non-compliant farmers to source the finance necessary to undertake cross compliance improvement works would *"bring a lot more guys in and would make them a lot more amenable to an assessment"*.

6.3.3 The link between the BPS and cross compliance

All of the participating farmers indicated an awareness of the link between the BPS and cross compliance. There was some disparity however regarding this link. Dennis had a positive pragmatic attitude and he related that he believed that farmers: *"have to go with the tide, haven't we and I think we won't lose anything by the rules and regulations, whatever chance we have abiding by the rules, we won't be losing out on our single farm payment or other subsidies"*. He outlined that he believed that cross compliance had helped to *"make people aware of their responsibilities in the running of a farm and particularly not to cause any pollution in waterways"*. Joan and Frank also had a proactive stance towards cross compliance. Joan emphasised that she believed farmers should view cross compliance not as *"something that is being dictated to you but something that is actually founded in practical considered sense"*. She further noted that in her opinion a tidy yard was more than simply being cross compliant, it also meant the farmer was *"not going up slopping up through sh*t to get to the milking parlour"*.

More negative perceptions of the link were however expressed by Noel and Tony. Noel in particular outlined that he found the policy was demanding on a one-man operation:

"If we don't have this thing done we are going to be penalised, you know if we have a crack on our concrete, if we don't have our plastic done properly, if we haven't tags on our animals, if we haven't our fields looking like they should be, that the weeds are under control, at the end of the day, there is only one single human being involved in that whole process".

Tony stated that cross compliance was *"just another thing to worry about really"*. He suggested that the requirements were a *"wish list"* that were impossible to comply with. He felt: *"you would really have to get rid of all farming activity and get a lawnmower to pass it and then you would still be in trouble with the petrol for the lawnmower and the pollution emissions"*.

There was further divergence between the farmers as to whether they had agreed to the terms of cross compliance as part of receiving a BPS. Opposite perspectives were expressed by John and Noel. For instance, John reported that he was aware that when he applied to the DAFM for his BPS that *"there is a commitment to good farming practice and that is where compliance, cross compliance comes in"*. Conversely, Noel considered that he did not *"sign up"* for cross compliance. He reported: *"when I signed up for grants, I didn't sign up for cross compliance. I signed up for subsidy, for food subsidies, to help you produce food. I didn't sign up for to be regulated in such a way that you can't"*.

There was however an agreement from the farmers that cross compliance policy actors need to recognise that farming is subject to a range of factors that can impinge on compliance levels. All of the narratives revealed that even with the best intentions of a farmer, a fully compliant status was not always possible. Noel reported, *"It's not easy being a farmer, because some days things get in a mess because you can't keep on top of it"*. Similarly Dennis noted; *"it's like writing in something into a book ... about withdrawal periods, dates and you know you could have a divil made of it on another page, put the wrong date on it"*.²⁴ Tony in particular was critical of the limited tolerance for genuine mistakes in cross compliance. He noted that farmers like all people could make mistakes. He related: *"where you have people reading stuff, you will probably get 96% accuracy, that's in an office. I am out here in a sheep pen with rain and wind and all the rest and tags that have been on a sheep's ear for God knows how long and you are expected to*

²⁴ Withdrawal period, as relating to veterinary medicine, is the defined time required after administration of a drug to an animal that is needed to assure that drug residues in the marketable product is below a determined maximum residue limit.

deliver 100% or face a penalty". He felt this was unfair and noted: *"it's cracked really, it's a double standard"*. He felt a fairer approach would be that inspectors would consider the severity of a farmer's mistake in relation to its potential harm to human health or the natural environment. He stated that if he were a cross compliance enforcer, he would rather:

"take a good hard look at any practice, a person is involved in before I'd penalise and say is there a real-world risk to some one's health because of this? And if the answer is no then I think you could take a far more lenient view on it. Is there a real risk of environmental degradation on this? Then you might take a harder view but I mean there are some greater goods that are important like human health and the environment but when they are small amounts you know negligible stuff and you coming out with the big stick over it".

The participating farmers did however acknowledge that within the agricultural sector that there were some farmers who will purposefully undertake actions knowing that the actions were not permitted by the regulations. Noel for example noted the existence of *"smart lads that think they can pull the wool over [someone else's eyes]"*, while Dennis reported that *"some lads would be switching tags or that, you couldn't be up to them"*. Moreover, John observed: *"there are people out there with very real problems and they are not always of their own making and there are also chancers out there who use any excuse that they can get hold of"*. The farmers considered however that not all non-compliant farmers were deliberate tricksters and noted that poor farming management practices were prevalent on some farms. This was exemplified in the account of Frank who spoke about farmers who had installed: *"brand new parlours that would have cost a fortune, they are all a hundred grand plus and they wouldn't even try and keep them"*. Joan related that she could not understand the *"mentality that you would have it that dirty"*. It was evident that she found this type of behaviour particularly unsatisfactory and she stated that it was:

"a bit disheartening ... when you know that some lads are getting exactly the same price for their milk and the exact same price for their cattle and they are not doing what you are doing. And that can create a certain tension and resentment".

Similarly, John related a complementary viewpoint with an assertion that he believed that farmers who purposefully carried out poor practices should not be afforded too much flexibility in cross compliance inspections. He reported that *"cross compliance inspectors should not allow themselves to be made fools of either"*. He however considered that the inspectors would *"know pretty quickly, whether they are dealing with someone trying to pull the wool over their eyes or someone who is in genuine difficulty"*. He clarified that in genuine situations, that the inspectors should take account of the peculiarities of the circumstances involved.

6.3.4 The realities of farming

There was an impression in the farmers' narratives that the farmers perceived that many of those involved in the creation and application of cross compliance policy had only limited awareness of the realities of farming life. Tony reported that he believed cross compliance policy was *"dreamed up by someone sitting in a comfortable office trying to think how we could make this thing better. They never stood in a sheep pen and patted a sheep [hooves] in their lives"*. Similarly, Noel noted *"you have someone comes in and inspects you, that doesn't know about your circumstances, who you are, what you are, what life issues you have"*. While, Joan reported that she had attended cross compliance information meetings, where she felt that those *"instructing in cross compliance you knew in your heart and soul that they had never put foot in a farm"*. She felt that this lack of experience created resentment amongst farmers that *"these yahoos were telling farmers what to do"*.²⁵

²⁵ A yahoo is a colloquial term used to describe someone not considered as having a good knowledge of a particular situation.

Moreover, the continuous additions of new requirements to existing policy was raised by John who noted: *"you know a problem arises and the answer is a new regulation or a new requirement and if that imposes a burden on people, then it is creating another problem, so does humanity gain much from that?"* He further stated that while he accepted that regulatory policies were necessary, he felt that at the same time that policy-makers needed to make greater efforts to devise pragmatic policy: *"we have to have regulations but they have to be sensible and I would expect the people who devise regulations to put time and effort into making them sensible and to making them as easy as possible"*.

The narratives of the participating farmers (with the exception of Tony) also portrayed a sense that they believed that many members of society had a poor awareness of the realities of farming. Conversely, Tony suggested: *"a lot of Irish people are kind of from half a farming background anyway and there would be a good level of understanding in some sections"*. The other farmers however considered that generally people did not understand the intricacies of farming practice. John reflected that many people possibly did not realise the stress and potential dangers that were involved in food production. Similarly, Joan felt that many people particularly those working in jobs with conventional hours had little empathy with the working conditions of the farmer. She observed that if a farmer ever complained about their working terms, they would usually receive a *"snipey"* comment such as *"sure aren't you grand, you have a fine milk cheque going into the bank"*. Dennis also felt that while society was becoming more health conscious, few people had an understanding or interest in the *"farm to fork"* process. He considered that when consumers were buying meat, they were often *"only concerned with that's a nice piece and that looks well"*. He felt that the consumer rarely considered *"where it comes from"*.

One particular reality, which was continuously referenced by the participants, was the interlinking factors of farming practice, farm labour and health and safety. The narratives

of the farmers particularly suggested that their low earnings affected their ability to hire labour to help with farm work. These labour shortages were considered to have an effect on the farmer's cross compliance levels and their working conditions. Noel noted: *"there isn't enough money out of it to ... to justify having a second person for helping you on the farm, a labourer and there isn't enough money to have someone in the office to help you, so you have to do the whole lot yourself"*. Tony similarly reported: *"I know my big gripe with it really, is that the product price doesn't match the compliance they are looking for, I would say. If wheat got scarce you could be looking at a thousand a tonne for wheat, you know and it would be very easy then and you would have someone to do the paperwork and you would have a lovely chemical store and everything would be very easy to do"*. The perspectives of Noel and Tony can be contrasted with the observation of Dennis, who occasionally hired in labour and who related that he found having this help was a *"great comfort"*.

It is also a possibility that farmers limited ability to hire in farm labour may be affecting their overall health and safety. In particular, Dennis noted the risks associated with working with live animals on his own: *"I often thought here, that if you were out there on your own and anything happened me, the cattle would walk across me"*. This very eventuality did occur to John when he was moving cattle from one field to another. He related that the cattle had broken loose and ran past him and in the rush that he fell. He noted: *"I could have been trampled to death quiet easily but thank God, they avoided me."* He felt that: *"I should have had probably had someone with me"*. Farmers' handling livestock alone was according to Joan, becoming more common, whereas she noted that previously: *"there was half a dozen on a farm to move cattle around a place or to dose cattle, now it could just be one person"*. Additionally, John raised concerns with working a slurry agitator in his lagoon. He felt that this safety issue was his responsibility and he admitted to taking risks while operating the agitator: *"I have that situation as safe as I can but I think it is probably the risk of someone falling into the lagoon, that I would be*

most concerned about and I think the best of way of trying to control that risk is to not delegate that job". Joan further related that farming was becoming more perilous because of the increasing mechanisation of farming practices. She related: *"it is now a lot more dangerous than it was twenty years ago, because it is bigger, it is deeper. It's more powerful, it's faster, the chance of accident has increased dramatically".*

In addition to the physical welfare of the farmer, their mental welfare was also highlighted. This was particularly expressed in relation to the levels of compliance that farmers were expected to deliver. Noel spoke at length about the pressure he was experiencing. He felt that other farmers also experienced these feelings. He noted: *"I know that farmers are bit complainy, moany and groany, but they are moany because they have every right to be. I think you know I am moaning now at the moment. I am not moaning because I want more money. I am moaning because my life is just not what I want it to be".* Noel also felt that cross compliance requirements *"restricts you being what would I say, productive, or what would I say, how will I say it, 'the urge to go on'"*. On the other hand, Dennis's narrative gave the impression that he was not particularly stressed in his operation. He suggested that not everyone was able to cope with the realities of farming life: *"Well some people aren't able to take it, they worry too much. Ah management is very important too and only do what you are able to cope with".* He outlined that his approach to farming was *"only try and do what you are able to do and even at that you will still have enough to do".*

The narrative of John and in particular his account of his health problems provide significant insight into how this illness had affected his ability to farm. He indicated that at this time his priority was *"about survival rather than you know than doing everything right".* He acknowledged that, *"cross compliance would have been bottom of the list of priorities".* Moreover, during his illness, John made use of his social capital resources for assistance. He in particular noted the support of his wife who did *"an awful lot to help me"* and the considerable help with farm tasks that was provided by his neighbours and

contractors. In addition, he noted the importance of being able to access economic capital. He related how he had been fortunate enough to have insurance policies which *"covered that situation, you know if I had to pay for everything out of my own pocket, I am not sure that I'd have been able to continue farming"*.

From listening to the narratives of the farmers, it was evident that cross compliance was a considerable source of stress. Frank alluded to the *"fear of the unknown"* and the random nature of cross compliance inspections as *"the biggest issue"*. He however reported that the recent update to the Farmer Charter in the summer of 2015 might help ease some worries in relation to cross compliance. He stated: *"I think there has been new protocols set in place in relation for the cross compliance and it's .. maybe ... more farmer friendly than possibly it was, like you should have a timeframe to get some things right"*. He was somewhat sceptical that all farmers would assert their rights under the charter and he considered that in this regard that cross compliance enforcers should take the initiative to inform farmers of their rights. He related that there is a *"kind of a half fear too that you don't want to irate this fella [the inspector], so you don't want to tell him to go away and come back"*. Noel also had doubts that farmers would assert their rights under the charter: *"Farmers are afraid to do their rights. We have already spoken about that early on whether you have charters or whatever, who is going to put their head above the parapet. Who is going to do it?"* Conversely, Tony was more positive and observed: *"I suppose only time will tell but leeway [as outlined in Farmers' Charter] is something we will take you know and certainly anything that reduces the burden is going to be helpful"*.

6.3.5 Cross compliance and its relationship with the 'good' farmer

The farmers' narratives provided some indication of a possible linkage between the concepts of the 'good' farmer and the 'cross compliant' farmer. For example, Dennis related that if he were assessing the compliance levels of a farmer, that the first thing that he would examine was whether the farmer's hedges were kept cut and trimmed. He

related that if the farm hedges were in a 'good' condition then he would consider that the farmer was *"a tasty mar"*. He contrasted this tidy approach to farmers with *"raggedy hedges"*, although he admitted that *"I have some of them as well"*. Dennis further reported that from a production perspective, it was important to assess the livestock of a farmer because *"when you see the cattle or the stock that's on the land you can nearly judge the kind of a farmer he is"*.

Managing the physical infrastructure of the farm was a key theme cited by all of the farmers in relation to cross compliance. Indeed, they all revealed that they had changed aspects of their infrastructure and activities in order to improve their conformance with the policy. Dennis and Noel both stated that they endeavoured to meet their requirements under cross compliance, while Joan reported that she and Frank had *"adopted the whole ethos of cross compliance and improvement in the yard"*. Even Tony, the most outwardly critical of the policy noted: *"I do make an effort to tidy the place more because of cross compliance"*. He also stated: *"but like someone said to me, if you have a really tidy neat farm, you are probably not doing much in it"*. However, he related that a tidy farmyard would set *"a good tone for the place because you think everything is probably ok here"*. He considered that his own farm was probably not up to these standards and said that *"I'd be guilty enough on that one myself in that I am a bit of hoarder and I only throw stuff out if I have to"*. He contrasted his yard with that of his neighbours and he reported that he believed that his neighbours' tidiness would likely improve their ability to pass a cross compliance inspection: *"They are ruthless. They will just dump everything that is not being immediately used. They are great, into a quarry and bury it and yeah they would do pretty good in an inspection (laughs)"*. This observation was however slightly confusing particularly as it is likely that the activity of burying waste in a farm quarry would have environmental consequences. It is more so confusing when considered in relation to the totality of Tony's narrative in which he also referred to significant global environmental problems including the deforestation of rainforests, genetically modified

organisms and climate change. It is therefore surmised that perhaps Tony offered this observation, as a means to indirectly highlight the differences between appearances and reality in cross compliance. This conclusion is strengthened by an additional observation, in which he noted that just because a farmer has his farm records up to date does not necessarily mean that he is cross compliant, as according to Tony: *"It doesn't matter; I could be putting anything down on paperwork and doing the other"*.

While Tony may have been subversively alluding to the differences between reality and appearances in cross compliance, the matter was directly addressed by John who reported that he considered that cross compliance was more about *"attitude rather than appearance"*. He reported that: *"I suppose I can think of a lot of people who would spend a lot of money in having the appearance right. Now I wouldn't be big into appearance, you know I would be more concerned about the reality, than the image"*. Moreover, he reported that if he were seeking to determine a farmer's compliance levels that he would *"rather meet and talk to the farmer for a while. I think if I was talking to him for quarter of an hour I would have an idea of whether he was cross compliant or not"*. He related having once met a farmer whom he considered did not display a responsible attitude towards compliance: *"he just made a comment that before agitating slurry, siphon off some of the liquid stuff. That would be the opposite to what I am talking about, you know, he didn't give a damn like, once he got the easiest way out of it"*. John further noted that while he recognised that he had some cross compliance issues on his farm, he believed that he was a responsible farmer. He believed this attribute was more important:

"I think being responsible is more important than being cross compliant. That you know, look I would argue, I have been saying to you that I wouldn't be getting ten out of ten for cross compliance but I would be a very responsible individual and I would make a conscious effort to have things right".

The narratives of Joan and Frank on the other hand, indicated a preference for both tidy practice and a responsible attitude. Joan in particular noted that observing the requirements of policy was the key to a farmer being compliant. She reported that she and Frank made a conscious effort to be compliant with the requirements and that in this sense they were not overly fearful of having a cross compliance inspection: *"I don't think there is any major fear about cross compliance in the way I look at it. I don't know whether I am right or wrong about it. But I know we are doing basically a good job and I know we are more or less ticking every box along the way"*. She also emphasised that if a cross compliance enforcer was to detect an issue on their farm that they would do their best to rectify it. She noted: *"if there is something we are doing wrong certainly we will correct it and go forward from there"*.

Moreover, Joan believed that generational issues could affect a farmer's willingness to conform to the policy and she noted that that younger farmers were adopting the policy of cross compliance more favourably. She spoke in particular about the period following when she and Frank took over the management of their farm from Frank's father. She related that one of their first tasks was to undertake *"a serious tidy up of the yard"*. She revealed that this process had resulted in some resentment from the retired farmer: *"we certainly had a lot on angst with Grandfather whenever we took over. You know the way we changed things, 'sure you don't have to do that' or 'sure it was always done that other way'"*.

In addition to generational issues, it was also suggested that the individual characteristics of the farmer can impact on their willingness to be compliant. John, for example, noted that it often took him a while to adjust to new regulations: *"I start by resenting things and I don't just mean cross compliance either but dairy regulations, the quality assurance thing and the co-ops own requirements"*. He however reported that often his resentment was unwarranted. He related a story to illustrate this point:

"it's about a dozen years ago now and there were new dairy regulations and some of them seemed over the top. Like one of them would be to have a wash hand basin in the dairy... I can't imagine now not having a wash hand basin in the dairy [laughs] and I would feel deprived if it wasn't there and you know a lot of these things are for the good".

Conversely, Noel did not seem to link a 'cross compliant' farmer with a 'good' farmer. He instead fondly spoke of one "good" farmer in his neighbourhood who had "left farming because of this kind of stuff [cross compliance regulations] actually, he just couldn't take it anymore".

6.3.6 Farm administration

The farmers' narratives contained mixed perceptions about the administrative requirements of cross compliance. Two of the farm cases, Dennis and the farming partnership of Frank and Joan were positively orientated to undertaking administrative requirements. In particular, Dennis reported that he did not have any difficulty with meeting his administrative requirements. He outlined that undertaking administrative tasks in a prompt fashion was key: *"I don't find it no hassle at all, the only thing is to remember it, not to forget it, you could forget it, once you think about, I go and write it in"*. However, it would seem from Dennis's narrative that his participation in the Bord Bia Quality Assurance Programme had served as an incentive to improve his administration. For instance, he noted that prior to joining this programme that he had only kept the minimum records necessary for financial and tax purposes. He also reported that the regular checks from the Bord Bia scheme auditors were a strong motivation for keeping his administrative requirements up to date.

Frank and Joan also appeared to have a proactive approach towards farm administration. Joan undertook most of the administrative tasks required on their farm. She reported that she believed administration was an essential farming task. She noted: *"it is not even for*

yourself in regard to record keeping and the drugs and that, you never know the day when unexpectedly you won't be on the premises and there is a written record if someone comes in to cover you, they can look at your sheets and say right ok and continue on the same. So you are eliminating the risk of making mistakes in so far as is possible". Joan reported using an information technology package linked to her phone for maintaining farm records. She noted that her husband Frank had less capability in using this IT package and she highlighted that on days when she was absent from the farm that she would *"have to go back and redo stuff to a certain degree to get it on to the computer system"*. She also acknowledged that maintaining administrative requirements could be difficult particularly when the farmer was working in adverse weather conditions: *"you have to go down through the herd and say her, her and her. Kind of pull out those numbers and it lashing rain down on top of you, it's enough to get them down through the crush"*. It would appear however that Joan was exceptionally conscientious of farm administration. She noted that her experience of *"an office background as well as a finance background"* were important factors in her proficiency. She also noted the influence of her mother, a schoolteacher and whom Joan related had a meticulous work ethic. Joan however acknowledged that while she was *"au fait with paperwork and paper trails and keeping tags and things"*, she was aware of *"a lot of guys that would have no clue how to religiously and consistently keep tabs on things"*. She also reported that she assisted neighbours with their administration requirements. She related in particular that she often helped *"three young farmers, with young families, far more progressive farmers that we are"* with *"herd registers, they have come to me in a panic, or vet report, or the report for cross compliance books, farm profiles, farm maps, they had no idea how to draw a map of the farmyard"*. Frank acknowledged the importance of the administrative work undertaken by Joan and he stated that *"if it was left to one person, there are just times of the year when it just becomes impossibility"*. Similarly, Noel stated that while he undertook his own paperwork, he felt that in situations where a wife or partner undertook

farm administration that they should be rewarded for this work. He noted that this was not the case on most farms as the finance was not available.

Conversely, Tony was highly critical of the amount of administration that farmers were expected nowadays to undertake. Like Joan, he highlighted that certain administrative tasks were extremely difficult to perform when the working conditions of farmers were considered. He reported: *"you are out in a mucky sheep pen trying to come along and inject sheep and pare their feet and its wet and mucky and all the rest and as if you could pick up a pencil and paper and all the rest of it and start writing down what they got and all the rest of it"*. However, while critical, he indicated that he did try to undertake whatever paperwork was necessary as he felt *"you had to take seriously and try and get some of it done anyway as best you could"*. John also indicated that while he believed much of the administration requirements prescribed by cross compliance were *"for the good"*, he felt the totality of the requirements were *"over the top"*. He related that the aggregate administrative requirements of cross compliance did not take account that most farmers do not have an office staff and that they have to perform administrative tasks in conjunction with other farm work.

A particular issue of contention for John was his maintenance of a farm diary, *"for a long number of years"* where *"basically anything that happens in terms of medication is written down"*. He outlined that he used a diary for this recording as it was a hard cover that was *'handier for using on top of the bulk tank, like it is easier keep this good, in a working situation"*. He reported that he was aware that this method of record keeping was not what the *"law requires"* and that additionally *"an inspector will want to know where I got the medication and what the withdrawal periods are and all the rest of it"*. John however reported that this information was easily sourced as: *"I either get the medication from either my vet or co-op. I don't get it anywhere else and I always observe withdrawal periods and as you know we are monitored very rigorously by the co-op and there is no mercy shown for anyone who lets antibiotics into milk"*. John reported that he could

satisfy himself that he was meeting his animal remedies requirements and he was not sure as to what recording all the additional information about purchasing would add. He also outlined that he was extremely strict with his relief milkers regarding the upholding of responsible animal remedies practice. He acknowledged that while he was aware that he should record withdrawal periods in the diary, he considered that the common treatments were something he tacitly knew from his daily practice. He reported: *"if there is anything, I don't know then I am obliged by my conscious as well as the law and also by practical considerations"* to find out about it.

A further issue that John had with reporting his animal remedies was he believed outside of his control. He related that his vet did not always provide him with prescriptions for the medications used on an animal. He felt that he could not take his vet to task on this matter:

"My vet is a man who is on in years and he is not as fit as he used to be and he is not a great fan of paperwork either, so I don't always get a prescription from him and look I suppose I just have to do the best I can with that, he has coming here for fifty years and I am not going to fall out with him now over prescriptions".

John however was progressive in relation to other aspects of his record keeping and he maintained his herd register on-line. John further indicated he was not against administration tasks per se but rather that he did not always see it as a priority task. He related, *"if I haven't my paperwork done properly, no one will get hurt over that generally speaking"*. John perhaps as an older farmer was more use to recording his farm information on a tacit basis. This method of farm recording was a more usual practice in the past. Frank, for example, noted that prior to the requirements to maintain cross compliance records, the majority of farmers would have *"complied with withdrawals and all that but just the paperwork wasn't there to back it up"*. He noted that in the past farmers *"kept it in their heads"*.

Special difficulties with meeting the administrative requirements of cross compliance were raised by a number of the interviewees. Tony noted that administration could be challenging for some farmers particularly those with learning difficulties such as dyslexia. He considered that dyslexia *"doesn't make you stupid, it just make things difficult with numbers or letters or whatever, you know, bright people but just have some issues with papers and forms and things and like it's very unfair on them to be coming along and putting the stress on them"*. Frank also reported that he was aware that some farmers who had difficulties with administration could be taken advantage of by livestock dealers. He related that often livestock dealers would undertake necessary administration for farmers, but would reflect this work in the price that they paid the farmer for their livestock, *"they will always lamp these lads that are a bit harmless, and they will get a good deal off them, but they will do the paperwork for them"*. Moreover, Joan acknowledged that she was aware that cross compliance administration could be difficult for farmers who were not computer literate. She however did not know what *"the easy way around that is"*.

6.3.7 The impact of cross compliance on farming practices

In this next sub-section, the linkages between cross compliance and the farm practices associated with animal welfare, food safety, farmyard and environmental management are discussed. All of these practices were mentioned by the farmers in relation to how they systemically managed their cross compliance requirements.

A) Animal welfare

The promotion of high animal welfare standards is a key component of cross compliance. It was however evident from the farmers' narratives that they would if necessary prioritise animal welfare requirements over their other requirements. John for example noted: *"if there is an animal needing attention out in the yard, she gets priority in my book. You know she is more important than paperwork"*. Frank further related, that while he was

aware that it was not good practice to have animals poaching the ground around circular feeders, he felt that if circumstances demanded, that he would do so as: *"it's more important that the cattle would be looking well than hungry"*. Joan also shared a story about attending a Teagasc information meeting in *"one of those really bad years"* when ground conditions were poor. She noted that a substantial part of that meeting had related to environmental problems related to *"poaching and circular feeders"*. She reported that at this meeting, there was a suggestion that the authorities were going to ban the practice of circular feeders to avoid poaching issues. Joan however felt that this threat indicated to her that those who facilitating the meeting did not have a *"practical sense"* of farming. She related that after having spoken to other farmers who attended this meeting, that there was a general consensus *"from those of us that were farming was that it was a hell of a sight better to have something in the feeder than a bit of poaching around it"*.

B) Food safety

All of the farmers spoke about the practices required under their food safety requirements. The dairy farmers were in complete agreement about the importance of producing safe milk. John noted that *"I make my living by selling food and I wouldn't want that food to do any harm to anybody and I suppose the other thing if we want good prices for milk, we have to get into the best markets and the best markets require rigorous standards"*. Similarly, Frank and Joan were conscious that they were required to produce safe, high quality food. They noted drinking their own milk and how this action added to their consciousness to produce a safe product. Joan reported in *"regard to the drugs that is one area that we would be ultra, ultra, careful of, because I am allergic to most antibiotics, so I am very conscious of drugs and withdrawals"*. She stated that she and Frank could *"guarantee that the milk inside there has nothing in it. And that I am not at risk and you cannot in all conscience sell anything that you wouldn't drink or eat yourself"*. She highlighted however that their strict food hygiene practice was not simply

related to the requirements of cross compliance and she reported that it was *"something we would have done regardless of a cross compliance inspection or rule"*.

Furthermore, Dennis, Joan, and Frank spoke about their participation in the Bord Bia Quality Assurance Schemes. The farmers noted similarities between the requirements of these schemes and cross compliance policy. Joan reported that she considered that *"Bord Bia reflects cross compliance"*. Moreover, it was noted that the Bord Bia Quality Assurance Schemes were strictly enforced by what Dennis described as a *"thorough inspection"*. John further related that he was in the process of joining the Bord Bia Dairy Quality Assurance Scheme. He stated however that he first needed to amend how he recorded the administration of animal remedies. He reported that he was not ready to join the scheme but he felt that *"if I do all that is expected of me for that I would be pretty much cross compliant"*.

Conversely, Noel and Tony indicated certain scepticism about the potential risks to consumers from farm produce. When discussing food safety in his narrative, Noel outlined that he believed some food safety issues were media driven. For example, in relation to the BSE crisis, he noted that it *"was created by journalism and hype"*. He felt that *"people get all sorts of sicknesses. CJD is not one of the most common ones"*.²⁶ Tony similarly noted scepticism and stated: *"whoever died of eating lamb chops? I think it's all madness really"*. However regardless of this belief, Tony reported that he took his food safety obligation seriously: *"I mean certainly you recognise that you want to watch your withdrawals and you don't want to put something dangerous on someone's plate"*.

C) Farmyard management

The main themes narrated in relation to farmyard management were slurry management and storage, yard infrastructure, and animal handling and housing facilities. There was a

²⁶ CJD is an acronym for Creutzfeldt-Jakob disease

sense in the narratives provided that the farmers viewed their improvement to farm infrastructure as symbols of their progression as farmers. Noel for example reported: *"I always had the image that I would progress, which I did, God almighty, I progressed a lot. In the few years I am at, thirty years I suppose. I had no slatted shed when we started and now we have a six bay and a four bay. I have [also] a sheep shed and a silage pit"*. He further noted that farm improvement grants had assisted many farmers to improve their infrastructure. He however felt, that these grants were provided in the best interest of the State rather than individual farmers: *"the sheds are actually belonging to the State really in my mind, because they were built to upgrade, to modernise farming"*. Conversely, he also suggested that in some ways building sheds, had increased his workload: *"I think now I might be better off if I didn't have all the slatted sheds because I have to clean all of them and maintain them"*.

Dennis also seemed to view his infrastructural changes as progress in his farming practice: *"I built on a few sheds when I got it, I built sheds and I put up a slatted shed and a five bay lean-to shed. That's a great shed and I have a three bay, I have hay in it. It is great for machinery and bales and all that and I have a concrete yard there and I have great comfort now with it"*. Additionally, John noted that the infrastructural changes implemented on his farm were *"a fairly serious undertaking"*. He however considered that the changes had relieved him of *"a lot of angst about cross compliance"*.

Similarly, Frank and Joan narrated at length the changes that they had implemented to their farm infrastructure. Frank outlined that when seeking to improve environmental compliance on a farm that the *"very first thing is slurry storage and slurry capacity. The basic principle of that is not letting rainwater and slurry mix"*. He outlined that this was their priority when he and Joan took over the management of their farm in their own right. He reported that they had changed from *"an open farm serviced with ring feeders"*. He related that this had been an unsatisfactory system as *"you gave half the day following slurry and it running all over the place"*.

Two of the farm cases (John and Tony) admitted having certain issues on their farms, which they felt would be unsatisfactory to a cross compliance enforcer. John's issue pertained to a tank in his standing yard that sometimes over-flowed in wet weather. He acknowledged that this was not a satisfactory situation however, however he had concerns about the financial outlay required to solve the issue. He felt that this hesitancy to invest related in part not having identified a successor, as he and his wife had no children. He admitted that this was not an adequate excuse:

"I am sixty-six and I don't have heir, we don't have a family. So before I commit to any kind of capital expenditure, I need to think ... look I will be seventy in four years' time, I don't think milking cows after that is a great idea, like when someone is pushing on in years and I am not trying to claim old age now or anything".

This attitude can be contrasted with Dennis who had identified a successor and who reported that he was keen to improve his infrastructure *"before I go"*.

Tony also highlighted at different stages in his narrative that he believed that cross compliance inspectors would not be unsatisfied with all of his farm practices. He noted in particular, that in the Spring, around his lambing facilities there *"would be slobber"*. He stated; *"I wouldn't like to be getting an inspection around it either"*. It was evident however, that Tony was aware of the environmental limitations of his operation. He noted that he was not in a position to keep cattle even though he reported that many farmers frequently made this suggestion to him: *"people I spoke too there, three of four people I spoke to said arra you should get some stock there, some cattle and I say sure I have no tank down"*.

In addition to the above listed issues, Tony and John also made certain observations regarding the storage of farmyard manure on their holdings. Both farmers indicated an awareness of the regulations surrounding the storage of farmyard manure however both

farmers questioned the legitimacy of the regulation when taking their specific local knowledge of their farm conditions into account. Tony noted that:

"Straw needs time to break down and I don't particularly have a dung stead, I'd heap and let it rot above in the field, if I had an inspection I know I would be in trouble with it. We are five miles from the sea in a valley with no major river, there is shag all run off from it because we are away from the drains you know I don't see it being any bother to anything but at the same time I could be penalised for it".

Similarly, John reported that while he would try to comply with the regulations in place regarding farmyard manure what *"would often happen that before the date when we are permitted to have a heap of dung in the field which might be the 12th of January. There might be too much waste after accumulating and I just feel that putting that out in a field in the place where last year's heap of dung was, isn't any great risk to the environment"*. Both farmers appeared to be satisfied that their practices were not causing any significant environmental damage. It should be noted that neither farmer could be perceived as having a negative mentality towards the environment as quite the opposite was observed by the PhD researcher during their interviews. From this observation therefore, it can only be concluded that both farmers considered that their farmer yard manure storage practices were benign to the natural environment.

In addition to farm infrastructure and its management, a number of the farmers referred to how their participation in agri-environmental schemes had contributed to improvements in their agri-environmental practice. Drystock farmer Dennis noted, *"the REPS scheme helped a lot of farms because people upgraded their premises and their farmyards and all that"*. He also related that the scheme had motivated a certain amount of competition between REPS farmers with *"one lad was kinda of competing with the other. You see your neighbour is, 'well I must try and be as good as him'. You would be ashamed if you hadn't it, you know it, fairly well up to date"*. John similarly spoke

positively about his experiences as a REPS farmer. He considered that the longer timelines of agri-environmental schemes were preferable to the current application of cross compliance:

"You know it was a five year programme and five years is a nice length of time to make a serious improvement in one's situation. If you drop a cross compliance bomb on a farmer and say have everything right by the end of the month, it can't be done. But if you say look do one thing this year and another thing next year, we will make some progress that way".

Similarly, Frank noted his approval of agri-environmental schemes. He related that he and Joan had used their REPS funding to upgrade their farm infrastructure: *"REPS was definitely good. The money we got from REPS we put it all back like"*. Conversely, Joan was critical of certain aspects of the REPS agri-environmental scheme. She highlighted in particular that certain specifications of the scheme were not as beneficial to the enhancement of biodiversity as they potentially could have been. She noted that under REPS, she had sought to plant certain native trees in the hedgerow but was informed by the authorities that the particular native trees she wished to plant were not covered by the scheme's requirements. She related this was disappointing as her choice of trees would have been the more beneficial for the fauna (particularly the birds) that inhabited their farm. She noted: *"I would have thought that with REPS, it was an opportunity to diversity flora, [and] to promote fauna"*.

A further environmental initiative undertaken by Frank and Joan was their recent planting of a forestry plantation in what they viewed as their contribution to mitigating the effects of climate change. Frank outlined that he had heard:

"Phil Hogan was talking yesterday about forestry and sustainable agriculture going forward and do you know the fact with climate change, and having got rid of quotas, they are probably going to

try and limit the numbers of animals again and we have done our bit, and we had ten acres of forestry planted last year".²⁷

This self-motivated environmental initiative arguably displays the couple's positive orientation to ensuring that their farm management did not have adverse effects on the natural environment. Importantly, it also demonstrates that they were willing to take steps prior to being prompted by policy nudges or budes.

6.3.8 Cross compliance enforcement

All of the farmers interviewed reported to have had some form of on-farm interaction with DAFM inspectors. There was a wide diversity of perspective expressed about these interactions. Dennis, John, and Frank and Joan provided relatively positive experiences of these interactions while the narratives of Noel and Tony reported less positive experiences. These more negative accounts may however also be related to the occurrence of Noel and Tony receiving penalties because of an unsatisfactory inspection. The positive accounts on the other hand were related to inspections where no cross compliance issues were detected. In the following sub-section, the more positive experiences of inspections are first outlined, followed by the less satisfactory experiences of Noel and Tony.

Firstly and serendipitously, Dennis had an inspection the very day prior to being interviewed for this research. Dennis reported that this inspection was an unannounced inspection:

"I had a [TB] test here yesterday and about half way through the test, I saw a car come in, a car like mine and a man getting out with books in his hands, didn't I think it was the Bord Bia Inspector because they could come though they would usually send you a warning, a letter, ring you up or something but wasn't

²⁷ Referring to the present EU Agricultural Commissioner

it Department of Agriculture on the back of his jacket. And he was a senior man too".²⁸

Dennis noted that his inspector was *"a nice man and we talked about the football and all this"*. Dennis reported that the inspector had *"came out for the herd test"*. He also noted the approach taken by the inspector: *"he checked a lot of the numbers, as the vet was doing it, he checked the numbers. Ah he said who he was and what he was at. So he only stayed there while the test finished. But that's the first time, I saw a man coming like that"*. From listening to Dennis's narrative, it would appear that he was satisfied with the approach that was taken by the inspector during the inspection.

John noted that he had only ever had one inspection for which he had received notice prior to being inspected. The purpose of the inspection was to reconcile cattle tag numbers against the herd register. The inspector checked that he had *"blue cards for them and then he wanted to see that they were correctly in the Herd Register"*. John noted he was *"ok on both counts"* but he reported that he *"would not have been ok if he hadn't have been good enough to ring me of a Friday to say he was coming on Tuesday and there was a lot of paperwork done over the weekend and I didn't get to bed early too many nights"*.

John acknowledged that he had experienced anxiety before the inspection: *"I was worried about what kind of individual he would be. He was a man, I didn't know him and I had never heard of him until he rang me"*. However, following the inspection, he felt that he had *"no complaints about how he did his job"*. John further noted that he was *"glad that his visit had motivated me to bring the thing [herd register] up to date"*. He considered however that the positive outcome from the inspection had *"maybe made me maybe a bit complacent about the whole thing"*. He reflected that *"If I had a bad experience, I might*

²⁸ Tuberculosis (TB) is a disease that can occur cattle from the bacterium *Mycobacterium bovis*.

have a different attitude". Overall John reported holding a positive perception of the DAFM:

"Generally my belief is that Department Officials are reasonable people, you know I would have had some dealings with them on other matters for example when I was inspected for the Farm Waste Management Grant, now I made a very serious effort to have everything right but I felt that the man who came was quiet reasonable. You know my belief is, if a cross compliance inspector came, the same would happen, you know".

Conversely, Frank and Joan had differing reports regarding the nitrates inspection they had. They had received notice of the inspection and considered that were prepared for the inspector. Frank reported the inspector *"came in and chatted away as per normal. Just normal chat but at the same time he didn't miss anything"*. Joan's version of this inspection differed slightly and she related that the inspector's approach had been slightly guarded: *"we had no problem with the nitrates, everything was 100% from him, you still got an impression from your man that if you weren't, you were going to get a slap on the wrist"*.

From the narratives of Frank and Joan, it was evident they were supportive of the need for inspections. Frank also acknowledged that he was aware that the DAFM were *"under pressure from the EU too, yeah they have to do so many and they have to show their paperwork"*. Joan however felt that cross compliance inspections should always be progressed using a constructive rather than an antagonistic approach. She reported that inspectors taking an antagonistic approach, with farmers being told, *"you shouldn't be doing that, you should be moving that there"* was what caused negative experiences. She related that it was this type of inspection approach which *"sets people backs up"*.

The narratives of Noel and Tony differed markedly from the reasonably positives accounts related above. Noel reported that while he was not against inspections per se, he had

difficulties with the risk of being penalised and how it can cause anxiety for the farmer: *"it's fine having someone coming in to inspect you and all that kind of stuff, but then he cuts back your income if you have neglected to do something, now as I have spoken about earlier on, I said, that the farmer is only human being and he has other life issues rather than the farm"*. He related two experiences of being inspected and how that he had experienced both inspections as stressful. He reported that the manner of the inspectors conducting the inspections had compounded his anxiety:

"You know the story of the guy coming in and he had seen over three quarters of my farm before and he came to me and he looked at me and he said "I have seen your farm" and it wasn't like you know someone coming in and being courteous. He looked at me like as if I had done something wrong before I had even done something wrong and if I had done something wrong, I didn't know, I certainly (laughs), didn't set out to do anything wrong".

He felt that his inspections were progressed on the basis of *"guilty until proven innocent"*. Noel's sense of being aggrieved was also related to his perception that he had not even known that something was incorrect prior to the inspection; *"there was some corner, that wasn't properly mapped or something"*. He reported that he was *"left out of my grants for something like three or four months"*. The second inspection experience narrated by Noel did not result in penalties; however, it was also experienced as a negative event. Noel related that he had been notified of the inspection and was instructed to prepare fourteen animals for inspection, which he duly did. He related however that on the day of the inspection the enforcer arrived and according to Noel, *"he looked at me like a policeman or something, you know it's was like I was doing a hundred miles on a thirty mile speed limit, that's how he looked at me"*. Noel related that he went over to the inspector in the yard and said *"you are only here to see 14 animals"* but the inspector said, *"no I am here to see your whole herd, every single animal"*. Noel noted that the inspector *"couldn't literally wait until he got out of the car, he told me on the way out of the car, like a*

statement and there was no more talk after that, it was just total down to the grind, checking my animals, up and down, counting them, checking numbers, full day, never rests."

Noel considered that he went *"through hell that day"* and that he would never forget the experience. He noted: *"I wouldn't wish that on anyone that kind of experience. It was an awful experience"*. What appeared to aggrieve Noel further was that he not been *'found guilty'*. He felt that *"fair enough if I had done something wrong, if he knew I had done something wrong, but I hadn't. I hadn't done anything wrong. He really scrutinised to see, was there something wrong, do you know what I mean"*. Noel related that his inspection experiences had affected his approach to cross compliance. He noted: *"these kind of experiences ... marked me in the sense that they put a fear into you"*. He related that he always tried to meet the requirements of cross compliance and sought to avoid hassle as he found it too upsetting:

"I'm certainly not able for these people, I do be afraid of my fecking life, when they come into your yard. It's like a personal space your yard, when you're on it every day. It's like your house and someone comes into, I don't know what it's like, it's strange and they are coming in and telling you something about yourself that you probably don't want to hear".

It should be noted that while Noel's related that his experiences of being inspected were stressful and unpleasant, he clarified that the *"Department aren't the worst in the world"*. Rather he felt that there were a *"few individuals who make it hard on individual farmers"*.

Similarly, Tony related having a negative experience of a sheep flock inspection which he later receiving a penalty to his BPS. Tony detailed that the penalty has arisen because the inspectors were unable to trace certain sheep to his flock register on the day of the inspection. Tony reported however that after the inspectors had left, that he had *"sat down and found all the sheep involved but I still got a penalty and I was about three*

years appealing it and I finally got away with it". He reported that he found the sheep registered in "an older book". He considered that this was not surprising as some of his sheep "were very old sheep".

Tony considered that the penalty applied was unjustified, as his sheep had been appropriately recorded and he decided to appeal. He noted, *"I thought, I had been pretty conscientiousness and done a pretty good job. I felt a bit aggrieved like (laughs)"* This sense of injustice appeared to motivate Tony who persisted with an appeal over a number of years. He reported, *"what muddied the water eventually was that fella I was dealing with moved on".* He further noted that his appeal experience was *"like making sausages not pretty but it was ok in the end".* Moreover, Tony observed that as he was not dependent on his BPS, that he felt that he was able to challenge the DAFM. He noted that *"I suppose I am fortunate position, if they took the payment off me in the morning it is not going to cripple me financially, so I have a bit of fu*k money".*

6.3.9 Agricultural extension

This final sub-section presents the interviewees appraisal of their experiences of engaging with agricultural extension. The farmers reported using a number of sources for cross compliance information and support purposes. Unsurprisingly, considering the sample of farmers interviewed, all related using Teagasc as a source of cross compliance information. Dennis in particular noted attending Teagasc meetings and field days and reading the Teagasc publication *Today's Farm* to source his cross compliance information. He also specifically highlighted his relationship with his Teagasc advisor which he reported was a beneficial: *"he fills up all my forms for the agricultural schemes. So I find that's very beneficial to have a man like that to send in all my applications online. So that's quite a good thing to have".*

The DAFM were also cited by most farmers as an important source of information. Tony however noted that while he did read the official documents from the DAFM, he

considered that often these booklets and information only served to *"let you know how badly you are doing (laughs)"*. Other sources referred to by the farmers included the farming press, while Tony noted the use of a private advisor. He reported that if he had a serious cross compliance issue he would *"use a couple of agricultural services. I'd use [name of private consultant] in [name of town]. I'd pick his brains first, he is kind of practical enough, he has a B.Ag. Then I'd try Teagasc as well to get a direction to go, that would be my usual like"*. Tony related that in his opinion, most farmers tended to use professional support when dealing with cross compliance issues. He related: *"you might talk to someone about it close to yourself but most lads keep that to themselves really. Yeah they would be inclined to just talk to their advisors or whatever. You might pick someone's brain alright but generally they will talk to the professionals, see what they think of it"*. On the other hand, John reported that he would regularly talk to other farmers about cross compliance matters and that if he met a farmer in social situations that *"things get discussed there"*. In addition, and as outlined earlier in Sub-section 6.3.7, Joan related that she was consulted by other farmers for advice on farm administration issues.

The dairy farmers also highlighted that discussion groups were an important source of their cross compliance information and knowledge. John reported that at his discussion group that they would usually *"spend two hours in the month together as a group but we would usually spend half an hour afterwards talking among one another and that talk would usually be about farming matters and there would be stuff like that [cross compliance] getting discussed there"*. Frank also noted the importance of discussion groups as a cross compliance resource. He stated; *"I would say the discussion groups are a big positives in regard to cross compliance"*. Joan also noted that the groups served as an opportunity for learning from other farmers. She reported: *"everyone over the last couple of years with the discussion group improved dramatically, a lot of things, because*

we are viewing everyone's and everyone had different ideas and different thoughts and different suggestions from everybody".

Conversely, Noel had mixed perceptions about the extension support that he received from Teagasc. He was in particular critical of a certain aspect of the cross compliance training that he had attended. He reported taking offence to a comment from one of the instructing advisors, who had related during the event that he as an advisor was also required to meet certain regulations as part of his work. Noel noted that he found this statement annoying, as he felt that the advisor did not seem to appreciate that farmers were financially penalised for their mistakes, whereas a farm advisor was unlikely to get their income cut in an instance where they made a mistake. In addition to this particular event, Noel also related a previous experience of attending a beef production meeting organised by Teagasc. He reported that while this meeting had been advertised as an event to inform beef farmers about how to improve their performance, it had instead focused on advocating to drystock farmers that they should undertake the rearing of surplus dairy calves. Noel felt that the tone of this meeting had indicated that the advisors did not seem to understand the particular circumstance of the drystock farmer. He related that *"my feeling was that there was no understanding of the suckler [drystock] farmers at that meeting that day. No real understanding of who he is, or where he is coming from"*. Noel suggested that to remedy this unsatisfactory behaviour that advisors would seek to improve their understanding of their farming clients. In particular, he believed that the advisors should seek to live *"the life for a couple of weeks maybe two to three or four weeks. It might just give them a little more insight into who they are talking to"*. At the same time, while critical of certain aspects of Teagasc's practice, Noel acknowledged that he had a lot of respect for Teagasc and he related that he had relied on the organisation throughout his career in agriculture. He stated: *"I'm not here to knock Teagasc because I think they are doing a great job and I don't know what we do without them to be honest*

as they certainly led the way for me as I was going along the way and I have learnt from them”.

Noel suggested that additional resources should be available particularly to those farmers who wish to learn about cross compliance. He noted the following suggestion as a potential source:

“I think there is an opening for a website for farmers, to bring in with their opinions [on cross compliance]. Pick a topic every week and let farmers to come in with their comments anonymously with their opinions. Not to have to say their name but to come in with their opinions”.

He felt that *“there might be a lot learned from that, it would be like a newspaper”*. Joan also felt that Teagasc advisors could be more proactive in helping farmers prepare for cross compliance inspection. She considered that there should be an option for a *“pre-assessment”* and that advisors should assist farmers with *“a run through”* of the farm to identify any particular issues. She felt such a preliminary assessment would make people more *“comfortable and familiar with what will be required of them. And put them on the road to correcting what is wrong before the inspection”*. She further reported that she was aware that many farmers found it difficult to access Teagasc advisors. She also related that while she and Frank had a good relation with their present advisor, this was not always the case. She further narrated a story where their previous advisor had not been very useful in her mind in terms of providing advice: *“I do remember in years gone past we were looking for the advisor to come out, we were wondering about a couple of directions that we were going to go in and we wanted to get outside opinion about a couple of things”*. She related that she had outlined the proposal to their advisor who then she felt had provided advice that was unsatisfactory. She reported: *“and the answer we got was “whatever sure whatever ye like yourself”. Christ help! So Teagasc aren’t necessarily the easiest to get”*.

A particular extension initiative highlighted by John was the Hazardous Waste Collection Scheme. This is a scheme jointly organised by Teagasc and the Environmental Protection Agency to provide a facility for farmers to dispose of hazardous farm wastes, which are not accepted at civic recycling and landfill sites. John reported that he was keen that Teagasc should endeavour to continue this initiative.²⁹ He noted that it was a useful scheme that aided his environmental compliance: *"you know if I had unused spray, I can't put it in the rubbish bin. You know and having it lying around for years isn't a good idea. Like that is something I genuinely would worry about if there is something in a container and the container is there for thirty years and the container leaks that is something you would want not to happen"*.

6.4 Chapter conclusion

This chapter provided an in-depth account of the findings arising from the Narrative Inquiry Learning Sub-system. The findings arising offer substantial learning opportunities for individuals and organisations who wish to improve their understandings of how the policy of cross compliance can affect the lives of farmers. In particular, the findings reveal considerable heterogeneity in the ways in which farmers can experience cross compliance. For instance, some of the participating farmers, notably Frank, Joan and Dennis seemed to be reasonably comfortable with the application and enforcement of the policy, whilst Noel had significant concerns with the limited considerations afforded to the welfare and wellbeing of farmers during the application and enforcement of cross compliance. Equally, Tony considered that the limited tolerance for farmer mistakes in the application of cross compliance was unfair and largely unachievable. Conversely, all of the farmers related concerns with the social sustainability aspects of the policy, whilst they also repeatedly discussed the BPS and its importance for maintaining the financial viability of farms particularly drystock farms. Diverse opinions were expressed about the efficacy of the link

²⁹ This scheme provides opportunities for farmers to dispose of hazardous farm waste at temporary bring centres at various locations across the country.

between the BPS and cross compliance, whilst mixed perceptions were also related about the 'realities' of farming, farm administration and the interrelations between cross compliance and farm practice. The findings also offer some indications of a potential correlation between the concepts of the 'good' farmer and the 'cross-compliant farmer'. Additionally, the research process revealed significant understandings about the different ways that farmers can experience cross compliance inspections. Furthermore, insights were surfaced about the existence of non-compliant farmers. It was evident that the farmers considered that non-compliances and poor farming practices were disheartening particularly for farmers who actively seek to abide by the requirements of cross compliance. At the same, all of the participating farmers believed that policy actors needed to recognise that farmers often have to prioritise their tasks, a prioritisation which can mean that certain requirements are not realised on all occasions. Similarly, the farmers spoke about the ways in which farm finance and labour issues can affect a farmers' ability to be in full compliance with the requirements. Finally, the findings show that the participating farmers appreciated having the support of extension organisations like Teagasc when engaging with cross compliance. It was however evident that the participants also believed that Teagasc could enhance its extension practices, particularly in relation to increasing the supports provided to farmers, who for either social or financial reasons, can have difficulties with meeting the requirements of cross compliance. These issues are considered further in Chapter 7.

Chapter 7

Evaluating the CCITP and Narrative Inquiry Learning sub-systems

7.1 Chapter introduction

Chapter 7 reports on the application of a multi-loop learning process for evaluating the contributions of the CCITP and the Narrative Inquiry learning sub-systems for informing the PhD Learning System. This approach involved separate evaluations of the learning sub-systems using the idea of measures of systems performance, specifically the Soft Systems Methodology (SSM) criteria of efficacy, efficiency and effectiveness (Checkland, 1981; Checkland and Poulter, 2010) and the Critical Systems Heuristics (CSH) logic of unfolding and questioning the 'facts', values and boundary judgements of the research situation (Ulrich, 1983; Ulrich, 1996; Ulrich, 2005; Ulrich and Reynolds, 2010). The evaluations also refer to the PhD researcher's practice and her perceptions of this practice. The insights arising from this multi-loop learning process are related in terms of their usefulness for informing enhanced interactions between farmers, extension organisations and mandatory agri-environmental policy.

7.2 Evaluating the CCITP Learning Sub-system

7.2.1 The purpose of the CCITP Learning Sub-system

The CCITP Learning Sub-system focused on a research project known as the Cross Compliance Information and Training Project (CCITP). This project involved an exploration of what could happen when using the principles of Participatory Action Research (PAR) to conduct research in conjunction with those involved in and affected by cross compliance and its related extension practices. The decision to focus on cross compliance extension was determined by the specialist advisors, who were interested in learning about what farmers' thought of Teagasc's newly published *Cross Compliance Workbook*. This new extension support was specially developed by Teagasc to "try and take the stress out of it [cross compliance]" as there was awareness in the organisation that understanding the requirements of cross compliance was "a headache for many farmers" (Specialist B).

Four research goals were assigned to the CCITP:

- i. Investigate stakeholder perceptions of the *Cross Compliance Workbook*
- ii. Develop nuanced understandings of how stakeholders perceive Teagasc's cross compliance extension service
- iii. Use the CCITP findings to inform and potentially enhance the support provided to farmers by Teagasc's cross compliance extension service
- iv. Use the research findings arising from the CCITP Learning Sub-system to inform the PhD Learning System

The particular motivation for using the principles of PAR as a research approach for realising these goals were related to the PhD researcher's academic interest in exploring the utility of the PAR approach for informing extension practices. She was especially interested in learning what the application of PAR might reveal in terms of additional insights with relevance for informing more farmer-focussed, participatory types of extension practices. Her methodological choice is also linked to a concurrence with scholars who advocate that research processes concerned with the pursuit of more sustainable types of agriculture should include and value the perspectives of farmers (Röling and Pretty, 1997; Ison and Russell, 2000; McClintock *et al.*, 2003; Pelling *et al.*, 2008; Bruce, 2013; Brown *et al.*, 2015; Prager and McKee, 2015).

In light of the participatory ethos of the CCITP, a first research action was undertaking a period of stakeholder analysis, for the purposes of identifying the various stakeholders that are involved in and affected by, the policy of cross compliance and its related extension efforts. The methods and outcome of this process are detailed in sub-sections 4.5.1 and 5.2.4. A main conclusion of this analysis was to determine that farmers, as the primary users of Teagasc's cross compliance service as the stakeholder category most qualified from experience to comment on the efficacy of this service. A second category, which is referred to in this thesis as a 'non-farmer stakeholder' involved a combination of

stakeholders groups who were identified in the analysis as having either a formal or informal role in the provision of information about cross compliance. The CCITP Learning Sub-system is an amalgamation of the learning arising from the insights provided by these stakeholder categories.

In the following Sub-section 7.2.2, there is a consideration of how well the CCITP Learning Sub-system performed in realising its research purpose and goals.

7.2.2 Did the CCITP Learning Sub-system work?

There are many reports in the literature to suggest that participatory processes in agricultural extension can often claim success but rarely actually systematically describe or make transparent the substance of the successes claimed (Hagmann *et al.*, 1999). To avoid such an scenario in this evaluation of the CCITP Learning Sub-system, a candid account of the elements considered 'successes' and the elements not considered 'successes' is offered. In particular, these successes and non-successes are reported in relation to their performance in informing the sub-question: *"how can using the principles of Participatory Action Research (PAR) strive to provide stakeholders with meaningful opportunities to contribute to a conversation about cross compliance extension practices?"*

The following claims are offered in relation to the realisation of the research goals assigned to the CCITP. Firstly, it is claimed that the CCITP was successful in providing a meaningful opportunity for interested farmer and non-farmer participants to reveal their perceptions of the *Cross Compliance Workbook* (see Sub-section 5.4.2). With reference to the second goal, it is claimed the CCITP successfully developed nuanced appraisals of the ways in which the participants experienced Teagasc's cross compliance extension service (see Sub-section 5.4.4). Concerning the third goal, the specialist advisors have clearly indicated an intention to use the findings of the CCITP to inform future editions of the workbook. Moreover, they have suggested that they will where possible use the findings of the CCITP to inform future cross compliance extension practices (see sub-sections

5.4.3 and 5.4.5). Finally, in relation to the fourth purpose, this evaluation determines that the use of a PAR inspired methodology in combination with a learning process approach resulted in the generation of significant insights with a potential for informing enhanced extension practices related to cross compliance.

Moreover, these insights are believed to be what Talbott (2004) might describe as 'worthwhile' in that they provide interested individuals with an learning opportunity for improving their understandings of what farmers want from cross compliance extension practices. These insights arose from an extensive engagement process conducted between the PhD researcher and a wide range of interested and affected stakeholders. The efficacy of this process from the specialist advisors' perspectives is provided in Section 5.3. In short, their accounts indicate a satisfaction with the ways in which the PhD researcher progressed the CCITP engagement. In particular, Specialist A reported that the research process had involved "*all walks of farming life and organisations*" and "*all the cogs of Teagasc*". An alternative account of quality of the engagement achieved from the perspective of the PhD researcher is outlined in Section 5.3. This account includes a declaration that the quality of the engagement progressed with farmers was meaningful, with a range of opportunities provided to interested farmers to take part in the project. Conversely, the PhD researcher is less satisfied with the way in which she progressed her engagement with the non-farmer stakeholders. In particular, she acknowledges that the narrow framing of the participation invite may have hampered the efficacy of this engagement. In hindsight, she considers that the questions posed in the participation invite were too rigidly focussed on extension issues, a factor which may have discouraged some stakeholders from taking part in the CCITP. At the same time, the PhD researcher recognises the rationality of nonparticipation and she accepts that certain participants may have chosen for their own reasons not to participate in the CCITP (Pain and Francis, 2003; Hayward *et al.*, 2004; Collins and Ison, 2009). On the other hand, rich non-farmer insights were provided by the 26 stakeholders who did participate in the CCITP.

Furthermore, in comparison to the PhD researcher's opinion, it is evident that the specialist advisors were satisfied with the way in which the CCITP engagement process was progressed (see Section 5.3).

Conversely, while rich findings about cross compliance extension practices were developed from this engagement process, it is apparent that there are limitations with the application of a PAR methodology for informing enhancements to cross compliance extension practices. This observation relates to the perceived limitations with the ability of extension organisations like Teagasc to immediately address the expressed issues and concerns of the participants. For example, while farmers and other non-farmer stakeholders indicated that they would appreciate an updated *Cross Compliance Workbook*, the realisation of this new edition is dependent on a number of factors, some of which are reportedly outside of the control of Teagasc. For instance, the specialist advisors highlighted issues in sourcing the exacting legal requirements of the changes to the Statutory Management Requirements (SMRs) under the new 2014-2020 CAP programme. Moreover, there are significant resource issues relating to the prioritisation of advisory workloads and a potentially related organisational shift within Teagasc on the emphasis placed on cross compliance extension. These organisational limitations resonate with previous observations that seeking to implement change in the context of large public institutions is difficult as institutional constraints will almost always apply (Cameron and Gibson, 2005; Pelling *et al.*, 2008; Coghlan and Brannick, 2014).

Furthermore, while the CCITP Learning Sub-system generated significant insights about the policy of cross compliance, a reflection on the specialist advisors' commentary on the findings of the CCITP, signifies that there are restrictions in the ability of extension organisations like Teagasc to enable all of the recommendations surfaced as a result of participatory processes. This is particularly evident in relation to the recommendations provided by the participants regarding the application and enforcement of cross compliance, as it would appear that a significant portion of the participant

recommendations are outside the remit and control of extension personnel (see Sub-section 5.4.6). Furthermore, there was an indication in the specialist advisors commentary on the CCITP to suggest that extension organisations like Teagasc will seek to avoid becoming involved in politically sensitive subjects, such as changing proposing changes to the ways in which the policy of cross compliance is applied and enforced (see Sub-section 5.4.7).

The revealing of limitations with the pragmatic realisation of participants recommendations signifies a need for a more cautious application when seeking to utilise participatory approaches for informing extension practices related to mandatory agri-environmental policy as the evidence would suggest that these approaches are not entirely compatible. Acknowledging this issue is crucial to avoid raising stakeholder expectations beyond what is realistically achievable in a given problematic situation. Moreover, tempering expectations is an important action for maintaining morale, as failing to meet stakeholder expectations can lead to 'disenfranchisement' and the development of strained relations developing between participants and researchers seeking to progress participatory approaches (Silver and Campbell, 2005).

However, while this evaluation of the CCITP Learning Sub-system acknowledges that achieving the normative descriptions of the participatory ethos of PAR were not fully realised in the CCITP, a significant number of useful actions were performed as a result of the project. These actions included the publication of Hyde's (2014) article on farm inspections in *Today's Farm*. The publication of this article is considered significant not only because it indicates that the Teagasc specialist advisors had learned from the insights of the participants but also because it demonstrates that they were willing to take actions to address the participants concerns. Equally, the publication reveals the potential for a PAR informed research process for enabling real-time improvements. The realisation of this outcome was affirmed by Specialist B when he related that he considered the CCITP was different to normal "*observational studies*" in that it was "*actually making*

changes or suggesting changes along the way" (see Section 5.6). A second useful action arising from the CCITP was the sharing of the project findings with the participants (see sub-sections 5.5.2 and 5.5.3). It is believed that this dissemination process resulted in the attainment of social learning between the participants. This claim relates to the way in which the PAR methodology revealed a range of perspectives about the application and enforcement of cross compliance. For example, Specialist A reported that: *"the PAR type of thing, allows for a more open discussion that may bring up issues that we obviously didn't think were as important, things such as the stress and the fear factor"*. In addition, there were indications in the feedback received on the *Cross Compliance Workbook Update* that some of the non-farmer participants had improved their understandings of the ways farmers can experience cross compliance as result of the sharing of the CCITP findings. As reported in Sub-section 5.5.2, one Teagasc farm advisor noted that *"hopefully we advisors can learn from some of the farmers' recommendations"*, while a cross compliance enforcer reported that she had shared the update with ground staff responsible for undertaking farm inspections. Further confirmation that a process of social learning may have occurred as a result of the CCITP can be garnered from Specialist B's perception that the sharing of the findings with the non-farmer stakeholders was an important action. He reported: *"from the agency level, I would say that they got the most benefit from it, because it informed them what farmer preferences were or what they liked and how they liked to consume this type of information"*. Additionally, the specialist advisors were appreciative of these insights and reported that the CCITP findings had contributed towards the development of an improved appreciation of farmers' preferences and experiences of cross compliance and the ways in which these subjectivities could impact on cross compliance extension services (see Section 5.6).

Conversely, it is not possible due to a lack of empirical evidence, to offer similar observations about what the practitioner and academic dissemination process might have achieved. In this regard, it is only possible to surmise that this second dissemination

process may have contributed to an improved understanding of the CCITP and its findings amongst the audience members in attendance at the specific events where the CCITP findings were presented. There is no evidence to substantiate any claim stronger than this.

In addition to the CCITP findings realising a process of learning between the participants, the surfacing of the varying subjectivities about cross compliance were significant for providing a direction for the PhD Learning System particularly in relation to the identification of a research focus for the Narrative Inquiry Learning Sub-system. Moreover, the PhD researcher acknowledges that she has significantly improved her understandings of cross compliance as result of her participation in the CCITP. She observes in particular that while she had been conscious that some farmers could experience difficulties with understanding the requirements of cross compliance, she had not expected that so many participants would relate that they had experienced the emotions of fear, stress and anxiety when engaging with the application and enforcement of this policy. More so, she realised the usefulness of the workbook as a cross compliance support when its utility was poignantly highlighted by one farmer who reported that: *"book very helpful, I am recently bereaved and stressed out with all I need to do, so book will guide me as to requirements needed for SFP³⁰"* (Munster farmer/54). In hindsight, the PhD researcher considers that she should have better predicted that there could be a reporting of social difficulties with the application and enforcement of cross compliance, as she was aware that participatory approaches such as PAR actively promotes participants to reveal their perceptions of the important matters concerning the research focus (c.f. Chambers *et al.*, 1989; McDonagh *et al.*, 2013).

³⁰ Basic Payment Scheme (BPS) was previously known as the Single Farm Payment (SFP)

7.2.3 Did the CCITP Learning Sub-system function efficiently?

Understanding the efficiency of the CCITP Learning Sub-system is complex. This complexity relates to previous observations of participatory research approaches as having a tendency to be 'messy' in nature and time-consuming in duration (Chatterton, 2010; Torre *et al.*, 2012). These traits were certainly evident in the CCITP Learning Sub-system. In particular, while useful insights for informing extension practices were developed in the CCITP, the realisation of this learning was the product of a 'messy' time-consuming research process (review sub-sections 5.4.1 – 5.4.7). Moreover, evaluating the efficiency of the CCITP Learning Sub-System is a largely subjective endeavour. For example, while this thesis reports that the 'finding out' stages of the CCITP were significant for allowing the PhD researcher to develop nuanced understandings of the problematic situation of cross compliance extension, the development of these understandings only occurred as a result of her considerable networking and facilitating efforts with stakeholders (or at least she claims that it was!). Subsequently, it has proven difficult to quantify objectively the outcomes of this 'finding out' process in terms of its academic achievement. Similarly, the progression of academic and practitioner dissemination in the CCITP was a time-consuming process, which has resulted in limited evidence to surmise what the process may have achieved in terms of informing cross compliance extension practices. Moreover, it is understood that while the CCITP Learning Sub-system was progressed in a way in which the PhD researcher genuinely believed was the most efficient approach at that particular time, she accepts that 'peer' review will determine whether this claim may be validated.

The following account is therefore related as one consideration of the adequacy of the CCITP research approach. Firstly, the CCITP successfully resulted in the revealing of approximately 250 individual insights to the PhD Learning System. This included the insights of 198 farmers, 26 non-farmer stakeholders, 20 farm advisors, 2 specialist advisors and the PhD researcher. While, this is a significant number of stakeholders, it is

arguably difficult to compare it to other studies as little participatory research on cross compliance extension practices have been conducted. It however possible to say that the CCITP has surfaced a range of ways of knowing cross compliance and its related extension practice and that these insights should be of value to researchers who pursue similar types of studies in the future.

It is also acknowledged that the sample of farmers who participated in the CCITP only represent those farmers who utilise cross compliance extension services. This representation is associated with the recruitment of farming participants at Teagasc events. This limitation was highlighted by a non-farmer stakeholder who suggested that the PhD researcher should seek to include the perspectives of farmers who do not usually attend cross compliance training events. The PhD researcher regrets that she did not realise more participation from farmers who do not utilise cross compliance extension services and she recommends that perspectives of this cohort of farmers should be actively included in future studies. Potential participants could be recruited using face-to-face engagement techniques at events where 'all' farmers tend to congregate such as livestock marts or agricultural shows. Moreover, progressing face-to-face engagement with stakeholders in the CCITP is determined to be a more effective research approach than the more passive approach of inviting participation in stakeholder publications. For example, 196 farmers from a potential of 621 participated in the CCITP at the cross compliance events, while in comparison the participation invite published in the July/August 2014 edition of *Today's Farm* resulted in only two farmers from a potential 40,000 Teagasc clients participating in the project.

In relation to the specific methods of the CCITP, it is considered that conducting stakeholder analysis and 'finding out' processes provided the PhD researcher with a nuanced understanding of the nature of the situation. Moreover, making these finding explicit in a diagram known as '*Cross Compliance Information Sources*' (see Appendix C) allowed for a sharing of the learnings developed. The usefulness of this mapping was

noted by Specialist B who reported: *"everyone has different perspectives as we have learned through that whole mapping exercise that you carried out, looking at all of the various, the kinda of social network of different players in the whole area of cross compliance"*

In the following Sub-section 7.2.4, a consideration of how effective the CCITP Learning Sub-system for informing the PhD Learning System is provided.

7.2.4 Was the CCITP Learning Sub-system effective?

There is ample evidence to suggest that the CCITP Learning Sub-system was effective in developing insights with a potential for informing extension practices related to mandatory agri-environmental policy. In particular, the claimed realisations of learning by the specialist advisors' is notable (review Section 5.6). For example, Specialist A related that allowing farmers to *"comment unprompted"* had surfaced *"more of the social interactions of cross compliance and inspections than if you had gone with a survey based approach"*. Similarly, Specialist B reported that there were significant opportunities for Teagasc to learn from the PAR approach: *"we have a lot to learn from the work that you have done and lot to learn from the whole sort of discipline of social science and learning and social learning"*.

However, despite the many learning opportunities arising from the use of PAR in the CCITP, there are equally limitations with the efficacy of this methodology for informing extension practices. Firstly, and as previously noted in the literature, implementing a research intervention, which follows the principles of PAR can be challenging for academic researchers particularly those who are not used to the peculiarities of this approach. This observation in particular relates to the difficulties associated with quantifying the learning arising from a PAR process in a format which will be acceptable to the wider academy. Moreover, Argyris and Schön (1989) report that participatory researchers are often faced with a dilemma of rigor and relevance when using action research type approaches such

as PAR. This dilemma was experienced by the PhD researcher who found that throughout the research process that she was tasked with creating research insights which would be mutually satisfactory in terms of their substantive content for participants, research collaborators and academic partners.

Furthermore, there are limitations with the practicalities of using a PAR approach with individuals who are not overtly aware of the mechanics or theory underpinning this type of research. For example, both of the specialist advisors indicated that the use of a PAR approach to progress the CCITP had required additional efforts on their behalf (see Section 5.6). In particular, Specialist A related that he found using the PAR approach was *"hard to master"*, while Specialist B noted that *"I guess it is the sort of project that because of the iterative nature of it, you are not sure where you are actually going to end up, that has its benefits but also has its challenges in terms of your ability to chart out where you are going"*. A final limitation with the use of a participatory approach such as PAR is the limited direction provided in terms of understanding what extension organisations can realistically achieve in terms of addressing the concerns and recommendations of participants. In particular, there is insufficient guidance regarding the role of extension organisation in resolving matters outside their usual organisational remit. This situation needs to be improved to avoid practitioners such as farm advisors feeling 'let down' when the many claims of participation are not realised in practice (Reed, 2008). Later in Chapter 8, a proposal for the establishment of a Cross Compliance Community of Practice for overcoming this particular participation impasse is given.

The following Section 7.3 will present the findings arising from the evaluation on the Narrative Inquiry Learning Sub-system.

7.3 Evaluating the Narrative Inquiry Learning Sub-system

7.3.1 The purpose of the Narrative Inquiry Learning Sub-system

The purpose of the Narrative Inquiry Learning Sub-system was to use narrative inquiry as an approach for revealing farmers' subjective experiences of cross compliance and its related extension practices. In particular, there was an intention to address Vanclay's (2004) assertion that extension organisations have often only limited understandings of the social realities pertaining to farmer adoption/non-adoption of the advocated practices of 'sustainable agriculture' like those imbued in the requirements of cross compliance. With this assertion in mind, the research process was progressed with an expectation that it would reveal insights with a potential for informing Teagasc and other interested stakeholders about the ways in which farmers' subjectivities can intersect with the requirements and objectives of the policy of cross compliance. The rich findings arising from the empirical process suggest that this goal was achieved. It is however acknowledged that until the findings are formally disseminated and reviewed by those involved and affected by cross compliance that it is not possible to confirm this success. Therefore, at this stage, it is only possible to surmise that insights arising from the Narrative Inquiry Learning Sub-system might in due course have an ability to inform more sensitive farm-focussed cross compliance extension practices.

7.3.2 Did the Narrative Inquiry Learning Sub-system work?

The Narrative Inquiry Learning Sub-system is claimed to have worked, in that the research process successfully developed intimate accounts of the ways in which the participating farmers experienced the policy of cross compliance. The following account is a presentation of the pertinent findings arising:

i. Farmer experiences of Teagasc's cross compliance extension service

It was evident from the accounts provided in the Narrative Inquiry Learning Sub-system, that the participating farmers appreciated having access to Teagasc's cross compliance extension services (see Sub-section 6.3.9). Dennis in particular highlighted the relationship he had with his Teagasc advisor and he related that he found it *"very beneficial to have a man like that to send in all my applications online"*. This observation supports previous reports of a close trusting relationship between farmers and their advisors (Hall and Pretty, 2008; Macken-Walsh *et al.*, 2012). Furthermore, all three of the dairy farmers reported that the Teagasc-run discussion groups were an important source of their cross compliance information. In particular, it was evident that the facilitation of knowledge sharing between farmers at these discussion groups' events was valued. Joan for instance reported: *"everyone over the last couple of years with the discussion group improved dramatically, a lot of things, because we are viewing everyone's and everyone had different ideas and different thoughts and different suggestions"*. This observation supports a previous claim which suggests that a farmer's participation in a discussion group can increase the likelihood that they will improve their technology and adoption of advocated practices (Hennessy and Heanue, 2012). In addition, it seems to relate to Hards's (2012) report that participation in a 'community of practice' (such as a discussion group), can lead to a gradual intensifying commitment amongst the participants to hold shared values.

Conversely, Noel had mixed perceptions of his interactions with Teagasc (see Sub-section 6.3.9). In particular, he related that he found it disheartening that some farm advisors did not always seem to appreciate that farmers can have genuine difficulties with meeting the requirements of cross compliance. He also suggested that there should be greater empathy from farm advisors about what it means to be a farmer. He advocated that farm advisors should seek to live the life of a farmer: *"for a couple of weeks, maybe two to three or four weeks. It might just give them a little more insight into who they are talking to"* (see Sub-section 6.3.9). This commentary reflects previous observations which imply that extension organisations do not always have sufficient understandings of the different social and cultural issues affecting farmer engagement with the advocated practices and policies of 'sustainable agriculture' (Vanclay, 1997b; Norman *et al.*, 2000). It can also be linked to Riley's (2016) proposal that policy actors like farm advisors should develop their 'good' farmer capital. He suggests that policy actors can build this capital by increasing their engagement with farmers, improving their awareness of the specific geographic contexts of farming and through their demonstration of a more contextualised knowledge of the agricultural sector. Conversely, in a contradictory perspective, Noel also acknowledged that he had a lot of respect for Teagasc and he reported that he had relied on the organisation's support whilst pursuing his career in agriculture. This mixed opinion demonstrates the considerable complexity at play in the interrelations between farmers and extension organisations.

ii. Enhancement opportunities for Teagasc

While the participating farmers appeared to appreciate the extension services of Teagasc, it was apparent that they believed that additional supports should be provided, particularly to those farmers struggling to meet the requirements of cross compliance. Joan specifically reported that Teagasc could be more proactive in engaging and

supporting such farmers and she suggested that Teagasc advisors should help farmers to undertake a "*pre-assessment*" of their farm, in order to determine their compliance levels. Furthermore, Frank and Tony highlighted that some farmers can struggle to meet the administrative requirements of cross compliance because of their literacy levels or the existence of learning difficulties (see Sub-section 6.3.6). Tony, considered that having learning difficulties like dyslexia "*doesn't make you stupid, it just make things difficult with numbers or letters or whatever, you know, bright people but just have some issues with papers and forms and things*". These findings signify that Teagasc needs to reflect on how it might provide enhanced supports to help these farmers. Moreover, these suggestions for increased advisory support echo similar requests in the CCITP (see Sub-section 5.4.4).

Other specific recommendations for Teagasc included a request from John that the Environmental Protection Agency and Teagasc supported Hazardous Waste Collection Scheme be continued (see Sub-section 6.3.9). While, Noel made a suggestion that Teagasc should initiate an internet forum that would enable farmers to raise anonymously their particular concerns about the policy of cross compliance. It is noteworthy that Noel has requested that this forum would be anonymous, as it reinforces a reality in which many farmers seem to experience considerable anxiety with admitting to external actors that they have cross compliance issues on their farm. A particular support in operation in England which may serve as guide for Teagasc in enabling this suggestion, is the Cross Compliance Helpline Service funded by DEFRA and operated by the Farming Advice Service of the United Kingdom.³¹

³¹ <https://www.gov.uk/government/groups/farming-advice-service> Last accessed 26th March, 2016 19:52pm

iii. Enhancement opportunities for Teagasc and other organisations involved in the provision of cross compliance information to farmers

In addition to specific organisational enhancements for Teagasc, it is also possible to decipher from the Narrative Inquiry Learning Sub-system, some wider learnings for all organisations with an interest in enhancing the supports provided to farmers when they are engaging with mandatory agri-environmental policies like cross compliance.

Firstly, it is evident from the findings that improving farmer engagement with mandatory agri-environmental policy like cross compliance will require more than simply increasing the provision of information. This contention is made because it was obvious in the accounts provided by the participating farmers, that the farmers were relatively aware of their requirements under cross compliance (see Sub-section 6.3.3). Such an observation was not wholly unexpected in this research due to the recruitment of the participating farmers at cross compliance training events. However, despite this attendance, it was notable in Tony and John's accounts of their management of farmyard manures in Sub-section 6.3.7, that an awareness of a requirement does not necessarily guarantee compliance. In particular, both of these farmers (who were clearly aware of the logic of the requirements) did not seem convinced that their management practices were contributing to the continued detection of diffuse agricultural pollution in waterways (c.f. Daly and Deakin, 2015). In addition, both farmers appeared to question the legitimacy of the requirements regarding farmyard manures when taking their specific local conditions into account. This observation relates to previous reports which suggest that when advocated production activities or technologies conflict with the practical local knowledge of the farmer they will likely be resisted (Macken-Walsh *et al.*, 2012). Furthermore, that both farmers would hold these beliefs suggests that there is considerable need for improved knowledge sharing between farmers and extension organisations about perceptual clashes pertaining to the impact of certain farming practices on the natural environment. The realising of this action will require extension practices capable of

imbuing more hybrid forms of knowledge, which can relate scientific understandings of water pollution to the local knowledge of the farmer. Alternatively, a complementary suggestion is that perhaps that the local knowledge of the farmer should be meaningful examined by policy actors and scientists to investigate its potential validity when it is used to contest the particular requirements of an agri-environmental policy. The potential for such a knowledge culture adaptation was previously reported by Morris (2006) in her account of the introduction of derogations into agri-environmental schemes.

A second useful insight for enhancing extension practices is the scope for extension organisations to embrace the concepts of cultural capital and the 'good' farmer when advocating the requirements of cross compliance. Certain scholars argue that there are shifting conceptualisations of what it means to be a 'good' farmer, with reports that there is a move away from the concept of the 'good' farmer being solely focused on productive agriculture, to a model incorporating more multifunctional forms of agricultural (Sutherland, 2013; Saunders, 2015; Riley, 2016). This perception was substantiated in the findings of the Narrative Inquiry Learning Sub-system (see Sub-section 6.3.7) with for example, all of the participating farmers referencing the tidy symbols of farming (Burton, 2012) as having a significance for their cross compliance management practices. Furthermore, all of the farmers related that they had had since introduction of cross compliance sought to improve their environmental performance. It is notable that even Tony, the farmer most outwardly critical of the policy reported: "*I do make an effort to tidy the place more because of cross compliance*" (see Sub-section 6.3.3). This observation also relates to Davies and Hodge (2006) who report that just because a farmer does not support the principles of cross compliance does not necessarily equate to their noncompliance, as other factors including 'obedience' and 'conscience' to follow the law may well compel their compliance. Conversely, it is necessary to acknowledge that there is a heterogeneity of ways in the 'good' farmer may be defined (McGuire *et al.*, 2013). For example, the 'tidy' symbols of the 'good' farmer were questioned by John who

reported that he believed that a tidy farm did not necessarily equate with a cross compliant farm (see Sub-section 6.3.7). In particular, he believed that cross compliance was more about *"attitude rather than appearance"* (see Sub-section 6.3.7).

Moreover, a number of the farmers acknowledged that their participation in agri-environmental schemes had served to improve their overall environmental performance. Frank, for example related that he and Joan had used their REPS funding to upgrade their farm infrastructure particularly in relation to their management of farmyard manures and slurries. Furthermore, there were indications in the narratives to suggest that the farmers considered that improving their environmental performance was a way to improve their cultural capital. Dennis, for example, related that farmer participation in agri-environmental schemes has motivated a certain amount of competition between farmers with *"one lad was kinda of competing with the other. You see your neighbour is, 'well I must try and be as good as him'. You would be ashamed if you hadn't it, you know it, fairly well up to date"* (see Sub-section 6.3.7). A number of the farmers also seemed to suggest that the development of their farm infrastructure had not only improved their compliance but that it had also improved their reputation as a 'good' farmer who was willing to progress (see Sub-section 6.3.7). In particular, it was evident that complying with the requirements of cross compliance was a substantial part of what Joan and Frank defined as a 'good' farmer. Joan emphasised that they had *"adopted the whole ethos of cross compliance and improvement in the yard"*. She further related that if an enforcer detected an issue on their farm, that they would strive to rectify it: *"if there is something we are doing wrong certainly we will correct it and go forward from there"* (see Sub-section 6.3.5). Equally, Joan and Frank's account provided evidence to suggest that farmers will undertake environmental actions on their own accord and without the nudges or budes of policy. This was particularly observable in their recent planting of a forest plantation, which they viewed as their contribution towards the mitigating the impact of agricultural production on climate change (see Sub-section 6.3.7).

A further observation to inform extension practices arising from the Narrative Inquiry Learning Sub-system is that the participating farmers experienced cross compliance as a whole farm policy (see Sub-section 6.3.5). This insight should be borne in mind when policy actors including farm advisors seek to progress agri-environmental extension practices in the agricultural sector. It also relates to Vanclay (2004) and Bruce (2013) who recommend that agri-environmental knowledge needs to be integrated with relevant technical or production considerations. Such integration is necessary because it was clearly evident that the farmers utilised systemic ways of thinking when making their farm management decisions and would prioritise tasks based on their understandings of the most pressing concern at that time. There was also significant evidence to support claims that farmers' application of agri-environmental policy can be problematic, if they are expected to adopt procedures contradictory to their established norms of 'good' farming practice (Röling and Pretty, 1997; Davies and Hodge, 2007; Burton and Paragahawewa, 2011; OECD, 2012). For example, it was evident that animal welfare is a priority 'good' farmer practice. This was illustrated in the narrative of John who reported that *"if there is an animal needing attention out in the yard, she gets priority in my book. You know she is more important than paperwork"* (see Sub-section 6.3.6). Furthermore, Frank related that he could understand why some farmers would prioritise animal welfare issues over environmental issues and he noted that while he was aware that it was not 'good' practice to have animals poaching the ground around circular feeders, he felt that if circumstances demanded that he would allow this as in his opinion *"it's more important that the cattle would be looking well than hungry"* (Sub-section 6.3.7). Taking these management observations into account, it would seem logical that extension organisations would consider in advance, how likely is it that the a farmer will be concerned about their particular extension message when it is viewed in conjunction with all of the issues that a farmer may be contending with at that particular time.

Equally, policy actors and extension organisations must learn that non-compliance issues can occur even when a farmer is aware of their requirements. The participating farmers offered a range of insights as to why non-compliances can happen including farm finance issues, farmers not being convinced that a non-compliant activity has negative environmental consequences, the arbitrariness of certain farming practices and the realities of human error. The first of these, farm finance is significant and is usually related as the means in which the CAP financially motivates farmers to improve their environmental performance (Webster and Williams, 2002; Varela-Ortega and Calatrava, 2004; Henriksson, 2007; Swedish-Board-of-Agriculture, 2011; Jaraitė and Kažukauskas, 2012). Moreover, economists routinely argue that it is the avoidance of losing their CAP payments which incentivises farmers to comply with the regulations (Ridier *et al.*, 2008). The narratives of the participants in this research however demonstrate that farmer engagement with cross compliance is more complex than economic rationality alone. A similar observation was reported by DEFRA (2009) in their acknowledgement that an unintended consequence of the link between cross compliance and the BPS is the considerable anxiety experienced by certain farmers regarding the risk of penalisation. Anxiety was evident in all of the farmers' narratives and there was considerable referencing to the importance of the BPS for the maintenance of farm viability (see Sub-section 6.3.2). Furthermore, there was significant evidence to support reports that farming and the range of requirements attached to farming makes it a stressful, occupation (Ní Laoire, 2012; Leonard, 2015). There was also significant evidence to justify Glover's (2015) observation that some farmers are experiencing the changes to the rules of farming as beleaguering and stressful. For example, Noel related knowing a "good" farmer who had *"left farming because of this kind of stuff [cross compliance] actually, he just couldn't take it anymore"* (see Sub-section 6.3.5). Conversely, Dennis in contrast provided an impression of a practitioner who was not overtly stressed by cross

compliance. Indeed, he suggested that not everyone was able for the realities of farming as *'they worry too much'* (see Sub-section 6.3.4).

Moreover, farmer engagement with cross compliance can be affected by the costs associated with the requirements of this policy (DEFRA, 2009; Swedish-Board-of-Agriculture, 2011). In this research, it was evident that the costs associated with cross compliance were an issue. John for example related that financial considerations had prevented him from rectifying a cross compliance issue (see Sub-section 6.3.7). Similarly, Joan related that she was aware that some farmers had difficulties with applying for farm improvement grants to improve their compliance (Sub-section 6.3.2). She suggested that there should be a simplified grants systems as it would *"bring a lot more guys in and would make them a lot more amenable to an assessment [cross compliance inspection]"*. These insights suggest that there is considerable scope for extension organisations to improve the supports provided to farmers in relation to their ability to access the financial incentives and grants available from the DAFM and other agencies for farm infrastructural improvements.

Furthermore, the participating farmers continuously linked the factors of income, farm labour, and health and safety in their narratives. Most of the participants indeed implied that their low earnings affected their ability to hire in farm labour for farm operations (see Sub-section 6.3.4). There were also suggestions that farm labour shortages affected the farmer's ability to abide by cross compliance and also worryingly, their personal safety during farming operations (see Sub-section 6.3.4). This latter insight could have a relevance for understanding the high levels of farm fatalities recorded in the Republic of Ireland (Casey *et al.*, 2014). In addition, the farmers reported that the increasing focus on farm administration in cross compliance was not adequately remunerated in terms of the prices that they received for their products (see Sub-section 6.3.6). Additionally, Tony and Frank suggested that the administration of cross compliance was placing certain farmers who had difficulties with performing administrative tasks at a financial disadvantage.

A particular aspect of farm administration raised by Dennis, and Frank and Joan was their voluntary participation in the Bord Bia Quality Assurance Schemes. There was a clear sense in these farmers' narratives that they believed that the Bord Bia schemes had incentivised improved compliance with farm administration requirements (see sub-sections 6.3.6 and 6.3.7). A potential link between quality assurance schemes and cross compliance was previously suggested by Farmer *et al.* (2007) who noted that there were synergies between scheme standards and the requirements of cross compliance. Joan clearly believed that these synergies existed and she reported that in her mind "*Bord Bia reflects cross compliance*" (see Sub-section 6.3.7).

iv. Opportunities for policy makers and enforcers

A number of insights with relevance for those agencies and stakeholders responsible for the development and enforcement of cross compliance were also observable. Firstly, and as previously noted in the literature (DEFRA, 2009; Bartolini *et al.*, 2012), it was evident that the monitoring and sanction systems used to enforce cross compliance were a politically sensitive issue amongst the farmers. This observation is especially affirmed in the experiential insights provided in relation to cross compliance inspections. Specifically, there was a sense from the participating farmers that they believed that those involved in the application and enforcement of cross compliance should learn to understand that the occupation of farming is subject to a range of factors, which can impinge on a farmer's ability to be cross compliant. Some of the farmers even alluded to a reality whereby even with the best of intentions of a farmer, a fully compliant status was not always possible. For example, Noel related: "*some days things get in a mess because you can't keep on top of it*" (see Sub-section 6.3.3). This observation appears related to Blackmore (2014) reports that factors such as inclement weather can impact upon a farmer's ability to comply with the requirements of policy. Moreover, Tony was highly critical of the limited

tolerance in the application and enforcement of cross compliance for genuine mistakes. He noted that farmers like all people could make mistakes and he felt that it was unfair to expect that farmers would always get everything right: *"it's cracked really, it's a double standard"* (see Sub-section 6.3.3).

Secondly, the participating farmers acknowledged, as Fraser (2013) reports, that there are certain farmers, who will purposefully undertake actions whilst knowing that these actions are not legally permitted. The farmers however clarified that not all non-compliant farmers were deliberate tricksters as they were aware that poor farm management practices remained prevalent on some farms (see Sub-section 6.3.3). There appeared however to be a limited sympathy for this type of behaviour amongst some of the farmers. Joan in particular reported that she found poor farm management practices were unacceptable, while John similarly considered that farmers who purposefully undertook unsatisfactory management practices should not be afforded too much flexibility in cross compliance inspections and he reported that *"cross compliance inspectors should not allow themselves to be made fools"* (see Sub-section 6.3.3).

Thirdly and as previously reported in the literature, it was evident from the farmers' narratives that a farmer's relationship with a regulatory authority can impact on their engagement with agri-environmental policy (Hall and Pretty, 2008; Fisher, 2013). All of the participating farmers reported having some form of on-farm interactions with policy enforcers (see Sub-section 6.3.8). A diversity of perspectives was expressed regarding these interactions. Relatively positive experiences were outlined by Dennis, John and Frank and Joan, while Noel and Tony reported less positive experiences (see Sub-section 6.3.8). Noel in particular related that his inspections had affected him on a personal level (see Sub-section 6.3.8). He noted: *"these kind of experiences marked me in the sense that they put a fear into you"*. He however clarified that he believed that the *"Department aren't the worst in the world"* and that his concerns were with the *"few individuals who make it hard on individual farmers"*. Moreover, Joan suggested that it would be preferable

for the cross compliance enforcers to progress inspections using constructive rather than antagonistic approaches. She felt that antagonistic approaches, in which farmers were told that *"you shouldn't be doing that"*, only caused the farmers to have negative experiences which she believed was what often *"sets people backs up"*.

A further insight relates to the previous reports in the literature which suggest that farmers can often have a disdain towards 'experts' and their 'placeless' knowledge (Wynne, 1989; Wynne, 1992; Moran and Rau, 2014). This observation was apparent in the Narrative Inquiry Learning Sub-system, with a number of the participating farmers suggesting that many of those involved in the development and application of cross compliance and other such agri-environmental policies had only a limited awareness of the realities of farming life (see Sub-section 6.3.4). For example, Tony reported that cross compliance was *"dreamed up by someone sitting in a comfortable office trying to think how we could make this thing better. They never stood in a sheep pen and paled a sheep [hooves] in their lives"*. The perception again gives credence to Riley's (2016) observation that there is significant potential for policy actors to improve their relationships with farmers by building their 'good' farmer capital. Furthermore, it is possible that improved understandings amongst policy actors about the ways in which agri-environmental policy can affect the personal lives of the practitioners involved may aid the development of more socially sustainable agri-environmental policies. This notion was highlighted by John, who reported that while he believed that regulatory policies were necessary, he felt that policy actors should make a greater effort to devise more pragmatic policies. He related that: *"we have to have regulations but they have to be sensible and I would expect the people who devise regulations to put time and effort into making them sensible and to making them as easy as possible"*.

7.3.3 Did the Narrative Inquiry Learning Sub-system function efficiently?

The rich findings arising from that Narrative Inquiry Learning Sub-system indicate that this system did function efficiently. This success in particular relates to the use of Biographic-Narrative Interpretive Method (BNIM). This specialised technique was purposefully chosen by the PhD researcher because she believed that it had an ability to foster a research setting which would enable the participating farmers to reveal using their own words, knowledge and reasoning patterns, their particular experiences of cross compliance. Specifically, she was convinced by the requirement that the interviewee lead the direction of the research conversation.

Moreover, returning to work with the farmers who had previously participated in the CCITP is claimed to have improved the efficiency of the Narrative Inquiry Learning Sub-system. In particular, that establishment of a rapport between the PhD researcher and farmers in the CCITP is believed to have made the process of inviting farmers to participate in the interviews, a more effectual process. Equally, the dissemination of the findings of the CCITP using the *Cross Compliance Workbook Update* was likely to be of significance. Indeed, Specialist B noted in the CCITP Learning Sub-system that he believed sharing the findings of the CCITP with the participants likely resulted in the stakeholders feeling like "*participants rather than just a sample*". This existence of a research rapport and its effect on the success of the Narrative Inquiry Learning Sub-system is claimed particularly as all of the farmers who were asked to participate in the BNIM interviews agreed to do so. Furthermore, this rapport allowed the PhD researcher to approach the farmers directly to participate in the interviews and she was not reliant on the use of farm advisors as an intermediary. This approach was taken in part to protect the anonymity of the participants but also because it would allow the farmers to raise extension issues without a fear of being identified or potentially offending their advisor. Equally, the existence of a previous research relationship between the PhD researcher and the participating farmers may have added a certain trust quality to the research

interactions. The intimate accounts provided by the farmers in their interviews are considered to substantiate this claim. Finally, approaching farmers who has volunteered to take part in the research was a way of avoiding, as Rahnema's (1992) cautions against, the potential for 'dragging' people into operations that are of no interest to them.

An acknowledged weakness of the farm case selection for the Narrative Inquiry Learning Sub-system is that perhaps it could be suggested that the farmers interviewed have a pro-cross compliance bias due to their initial recruitment at cross compliance extension events. A similar type of limitation was reported by Hards (2012) in her study of individuals with a pro-environmental approach to climate change practice. She however rationalised that the stories of those with a pro-environmental bias were by themselves a useful subject for a study of environmental values and a similar conclusion was reached in this research. Another acknowledged limitation is that there is no knowledge of the educational attainment of the participating farmers. While, interest in the education levels of the participating farmers was raised a number of times during CCITP dissemination, none of the farmers mentioned their personal educational attainment in their BNIM interviews, and the PhD researcher did not believe that it was appropriate to raise this matter. It is accepted that information on the educational attainment of the farmers may have enhanced academic understandings of the farmers' narratives. It is also acknowledged that the sample of farmers used to develop these insights was small and it is recommended that there should be further studies which seek to understand farmers' subjective experiences of cross compliance particularly in relation to the experiences of farmers who do not utilise extension services.

7.3.4 Was the Narrative Inquiry Learning Sub-system effective?

The Narrative Inquiry Learning Sub-system was effective in realising its purpose of developing rich accounts of the ways in which farmers know and experience cross compliance and its related extension services. The farmers' narratives offer significant

learning opportunities for extension organisations and other relevant stakeholders who have an interest in pursuing more participatory forms of extension practices with farmers. In particular, the narratives are considered to have an ability to inform extension organisations with understandings of the crucial social elements which can affect farmers' thought processes on change (Riley and Harvey, 2007). This particular quality was highlighted by Noel when he related to the PhD researcher that he believed that she would substantially learn from her participation in the interviews:

"This is a great exercise for you, and you have gone to college and you have seen and I think it's good for you that you come out and talk about it. Because no one has ever talked to me about this end of farming before and I think you are going to have a better perspective of farming after you go through this project. I think you will, I don't know what your opinion on it is, and maybe I am getting too personal".

The PhD researcher concurs with Noel's suggestion as she considers that she did learn from the process of talking to the farmers, with the result that she now has a 'better perspective' on the ways in which farmers can know and experience cross compliance. She hopes that the content of this chapter and the overall findings of this thesis demonstrates this learning claim.

7.4 Chapter conclusion

This chapter provided an account of the use of a multi-loop learning process as a way to evaluate the insights arising from the CCITP and the Narrative Inquiry learning sub-systems for informing the PhD Learning System and its concern with improving relations between farmers, extension organisations and mandatory types of agri-environmental policy. The findings suggest that both learning sub-systems were effective in terms of providing insights with a potential for informing enhanced extension practices. Regarding, the first empirical process of the CCITP Learning Sub-system, there was a clear indication from the specialist advisors that the findings of the CCITP in relation to the *Cross*

Compliance Workbook and Teagasc's cross compliance extension service will be taken into account when Teagasc are developing future cross compliance extension practices. It is however less clear, as to how the organisation can take account of the participant insights revealed in relation to the processes attached to the application and enforcement of cross compliance.

The second evaluation pursued in relation to the Narrative Inquiry Learning Sub-system, determined that the research process was effective in developing intimate accounts of the ways in which the participant farmers' experiences cross compliance. These insights provide diverse learning opportunities for Teagasc and other interested individuals and agencies who have an interest in creating more socially sustainable types of agri-environmental policy. Furthermore, the evaluation determined that the application of a narrative inquiry approach for developing these insights was significant, in that it allowed the participants to reveal in their own terms and in their own words, their particular experiences of cross compliance. Moreover, the particular way in which the BNIM approach asks the interviewee to lead the research conversation is considered as a meaningful way of ensuring that the participant's perceptions and not those of the researcher are used to guide the development of insights for informing the research focus. It is also believed that the establishment of a research rapport between participants and the PhD researcher in the previous CCITP Learning Sub-system may have improved the truth-telling aspects of the research interactions in the Narrative Inquiry Learning Sub-system.

In Chapter 8, there is a continued consideration of the learnings developed in the PhD Learning System for informing improved interactions between farmers, extension organisations and mandatory agri-environmental policy.

Chapter 8

Reflecting on the learning arising from the PhD Learning System

8.1 Chapter introduction

This chapter provides a synthesis of the learning arising from the PhD Learning System to inform extension practices with a potential for enhancing interactions between farmers, extension organisations and mandatory agri-environmental policy. It is believed that enhanced extension practices are crucial for supporting farmers to realise an improved sectoral application of mandatory agri-environmental policies. Three types of learning are reported: learning from the experiential knowledge of the participants, learning from a learning process approach and learning from the PhD researcher's experience of learning how to inform extension practices related to mandatory agri-environmental policy. Following these accounts of learning, some recommendations for future action and research are presented. This thesis concludes with a consideration of what the PhD Learning Sub-system has informed to extension practices related to mandatory agri-environmental policy.

8.2 Learning from the PhD Learning System

8.2.1 Learning from the experiential knowledge of the participants

A key purpose of the PhD Learning System was to learn how to provide stakeholders with meaningful opportunities for contributing their experiential knowledge of cross compliance towards informing enhanced extension practices related to this mandatory policy. To develop such an understanding, the research followed Talbott's (2004) advice that a meaningful conversation should involve *'a progressive and mutual deepening of insight, a sense that we are getting somewhere worthwhile'* (p.41). Equally, the research was progressed taking account of a rationale, which considers that mediating meaningful communications about issues of environmental sustainability will require dialogical infrastructure that is capable of encouraging a multiplicity of perspectives (Bradbury, 2005; Bodorkós and Pataki, 2009). The qualitative methodologies of Participatory Action Research (PAR) and narrative inquiry were purposefully selected as the data collection

approaches. This selection was made based on an expectation that these qualitative approaches would enable the participants to reveal on their own terms and in their own words, their particular perspectives and experiences of the situation. It was anticipated that revealing participants' experiential knowledge of cross compliance in this way would increase our understanding of 'what there is' (Heron and Reason, 1997).

The application of these flexible approaches also signified the PhD researcher's concurrence with the logic of incorporating farmers' ways of knowing into research about farmers (Röling and Pretty, 1997; Ison and Russell, 2000; McClintock *et al.*, 2003; Pelling *et al.*, 2008; Bruce, 2013; Brown *et al.*, 2015; Prager and McKee, 2015). It also reflects the use of a Participatory Inquiry Paradigm and its desire to place 'us' back in relation with the cosmos (Heron and Reason, 1997). This paradigm follows the logic of Abrams (1996) and Sanford (2011) who determine that considering the world conceptually and without due account of the lived experiences and active participation of the humans within that world, impoverishes our understandings. Additionally, purposefully including the perspectives of a range of non-farmer stakeholders in the CCITP Learning Sub-system was a way to take account of Vanclay's (2004) advice against romanticising local knowledge as the primary solution for resolving all the sustainability issues associated with the agricultural sector.

Following an agreement between the Teagasc specialist advisors and the PhD researcher to pursue an investigation into the interplay between farmer subjectivities, cross compliance and the extension practices of Teagasc, their next task was to determine who should be invited to share their experiential insights to the investigation. To achieve this understanding, a process of stakeholder analysis was undertaken. A combination of methods from systems thinking and corporate project management were used in the analysis. This complex approach was progressed in recognition of the many different perceptions and framings associated with sustainability issues (High and Nemes, 2009). The specialist advisors also supported the progression of the analysis particularly in

relation to the provision of insights about the pragmatic potential of the engagement process. On reflection, it appears that the specialist advisors appreciated their involvement in this process. In particular, Specialist B enthused about the collective development of the diagram referred to as '*Cross Compliance Information Sources*' (See Appendix C). He reported: "*that map is so, so, useful, when you're designing a communications plan*". He also related that visualising the various involved and affected stakeholders in this diagram had promote understandings of "*the different relations between the different agencies*" and the "*different antagonisms that are here and the sort of potential partnerships that are there*". The diagram also provided the PhD researcher and the specialist advisors with an opportunity to collectively consider which stakeholder groups could realistically be engaged with under the remit of the CCITP. This heuristic quality reflects previous reports of the utility of diagrams for promoting systemic appreciations of the knowledge flows between users, creators and intermediaries in a particular knowledge system (Oreszczyn and Lane, 2012).

Following the identification and prioritisation of potential participants for an investigation into cross compliance extension, a formal process of engagement for the purposes of data collection was initiated and progressed with the prioritised stakeholders. On completion, this process resulted in the revealing and recording of approximately 250 perspectives of cross compliance and its related extension practices. A range of stakeholders groups were represented including 198 farmers, 26 non-farmer stakeholders, 20 farm advisors, two specialist advisors and the PhD researcher. This diversity surfaced a range of ways of knowing cross compliance and its related extension practice. These ways of knowing included the advisors' ways of knowing, farmers' ways of knowing, scientific and policy ways of knowing and the PhD researcher's ways of knowing.

The insights arising from the revealing of these different ways of knowing included a range of perspectives on the *Cross Compliance Workbook* and the extension practices of Teagasc. The participatory approach of PAR was also effective in enabling a significant

number of CCITP participants to raise additional concerns with the policy of cross compliance. The most frequent concerns cited by the farming participants were related to the negative sentiments of stress, fear and anxiety when engaging with the application and enforcement of cross compliance. Moreover, many of the non-farmer participants revealed concerns pertaining to their scientific and policy ways of knowing cross compliance. These perspectives provided the PhD learning System with alternate ways of viewing the problematic situation of cross compliance extension. For example, a significant number of the cross compliance enforcers stressed that it was essential that farmers abide by the requirements of cross compliance in order to reduce the potential for negative environmental externalities to arise from farming activities. It was also evident from the enforcers' accounts that they regularly encountered non-compliant farmers when conducting their inspection activities. Many of the enforcers additionally expressed a preference for improving farmer compliance with the requirements of cross compliance through informal engagement rather than the application of penalties. One enforcer however warned that any indication of intent to pollute from a farmer would be "*frowned upon and would be taken seriously*" (Non-farmer/22).

The findings of the CCITP Learning Sub-system demonstrate that there is a diversity of ways of knowing cross compliance. This finding is not wholly unexpected, but it does suggest that a process of knowledge co-production can lead to tensions particularly in situations when there are significant differences in perspectives (Prager and McKee, 2015). The revealing of such diversity in a participatory process may be uncomfortable for researchers and participants, yet it is also necessary to develop new ways of knowing a problematic situation. Indeed, Rayner (2012) cautions against suppressing 'uncomfortable knowledge' as he considers that it is usually this 'uncomfortable knowledge' which will prove decisive for understanding how to address a particular issue or situation. The logic was reified by Specialist B who elaborated that the CCITP had unexpectedly revealed

"issues that we obviously didn't think were as important, things such as the stress and the fear factor".

The surfacing of considerable social difficulties with the application and enforcement of cross compliance also served as focus for the second empirical element of the Narrative Inquiry Learning Sub-system. This subsequent learning sub-system purposefully sought to use Narrative Inquiry for developing understandings of the different ways that farmers can experience cross compliance. It was also an effort to create alternative, humanised, and populated narratives of the countryside and its management (Riley and Harvey, 2007). The rich findings arising from the process include the revealing of a range of social, economic, environmental and technical issues, which can affect the realisation of mandatory agri-environmental policy. This deepening of insight is testimony to the usefulness of the experiential knowledge of the participants for informing extension organisations with improved understandings of the crucial social elements that can affect farmers' thought processes on change (Riley and Harvey, 2007).

A final way of knowing cross compliance that was revealed in the PhD Learning System was the PhD researcher's ways of knowing cross compliance. This thesis provides an academic account of this way of knowing. The PhD researcher however willingly acknowledges that she does not know all there is to know about cross compliance and its related extension practices. This limitation was particularly evident when she discovered that during the CCITP dissemination that she was unable to answer certain questions that were posed to her in an email from a farmer. The questions asked were of a technical scientific nature and the PhD researcher considered that she was not sufficiently qualified to answer them. She therefore asked one of the specialist advisors to respond to the farmer's queries. In addition to this incident, the PhD researcher acknowledges that she relied on the specialist advisors' ways of knowing cross compliance at many times in the PhD Learning System. In particular, their commentary was significant for the development

of critical insights about the practicalities of using the CCITP findings for informing extension practices related to cross compliance.

In conclusion, revealing a diversity of ways of knowing, as was achieved in the CCITP and Narrative Inquiry learning sub-systems can help to develop a greater account of 'what there is' (Heron and Reason, 1997). Moreover, the engagement process that was taken to reveal these ways of knowing, confirms the logic of social learning as a useful construct for understanding the interactions between conventional agriculture and the various efforts implemented to pursue more environmentally sustainable forms (Cerf *et al.*, 2000; Ison and Russell, 2000; Krasny and Lee, 2002; Triste *et al.*, 2014). Learning how extension organisations can devise extension practices with a similar facility for revealing and valuing the different ways of knowing a situation would seem a logical way to improve interactions between farmers, extension organisations and mandatory agri-environmental policy.

8.2.2 Learning from a learning process approach

This next sub-section will discuss the opportunities and challenges of learning how to inform extension practices related to mandatory agri-environmental policy using a learning process approach. This is a specific methodological framework, which recognises that 'ordinary' people are stakeholders with '*a great deal to contribute to program design*' (Korten, 1980: p.499). The PhD researcher also specifically asked her project partners from the Teagasc's Soils and Environment Programme to select an empirical focus for the learning process approach taken in the PhD Learning System. This decision related to Korten's (1980) recommendation that researchers work '*hand-in-hand with operating personnel*' (p.499). Moreover, the PhD researcher was acutely aware that the specialist advisors had a greater experiential knowledge of mandatory agri-environmental policy than she had and they were therefore more likely to identify a 'worthwhile' project for the PhD Learning System.

The first empirical phase of the PhD Learning System, the CCITP Learning Sub-system purposefully used the principles of Participatory Action Research (PAR) as a way to provide stakeholders with meaningful opportunities to contribute their experiential insights to a conversation about cross compliance extension. The resultant process revealed a significant potential for using a PAR approach to surface stakeholder perspectives of cross compliance extension. Moreover, the use of the participatory approach of PAR for the data collection enabled the surfacing of a range of social and economic difficulties with the application and enforcement of cross compliance. Subsequently, an informal commentary from the specialist advisors on these findings allowed for a consideration of what extension organisations can realise towards improving farmers' experiences of cross compliance. The revealing of significant social sustainability issues with the application and enforcement of this policy also enabled a process of social learning about these issues between the specialist advisors and the participants of the CCITP. This process has contributed to a reconfiguration to the extension practices of Teagasc, with the specialist advisors both relating that they have a better understanding of farmer ways of knowing cross compliance as a result of the CCITP. Other extension actions arising from the project included the publication of Hyde's (2014) article on '*Getting set for on-farm inspections*' in Teagasc's client magazine, *Today's Farm*. The publication of this article is considered to be significant not only because it indicates that the specialist advisors had learned from the insights of the participants but also because it demonstrates that they were willing to take actions to address the participants' requests for additional information on the enforcement of cross compliance. This action demonstrates the potential for a PAR informed research process for enabling real-time system improvements to cross compliance extension practices.

The use of the participatory approach of PAR for informing extension practices is however not without its complications. Firstly, there are the practicalities of using a PAR approach with individuals who are not overtly aware of the mechanics or theory underpinning this

type of research approach. Secondly, while the PAR process revealed significant insights for informing extension practices, it was evident that there are tensions with the use of participatory approaches for informing extension practices related to cross compliance. A particular challenge relates to the apparent limited ability of extension organisation to mediate for farmers' preferences for mandatory agri-environmental policies like cross compliance. Moreover, it is acknowledged that the action intentions of the CCITP were only partly realised. For instance, while stakeholder issues and recommendations were highlighted at different dissemination events where key policy stakeholders were in attendance, this research has no evidence to suggest the CCITP dissemination process influenced these stakeholders. This was confirmed in the views of Specialist A who related: *"look, we don't know, they never came back to us and said 'look give us a bit more information on this'".* It would also appear that extension organisations like Teagasc may seek to avoid becoming involved in sensitive issues such as actively seeking to influence the application and enforcement of cross compliance, at the risk that their actions would become politicised. This type of approach was referenced by Specialist A who related that *"Teagasc would say that they won't get involved in that political type of storm"*. This type of cautious reaction was previously reported by Hage *et al.* (2010) in his notation, that scientific and policy actors are usually reluctant to become involved in the 'political power-play' that can arise during or as a result of a participatory intervention.

There is also a reported friction with the use of participatory approaches for enhancing the effectiveness of extension practices in advocating particular policy objectives (Röling, 1990b; Murray, 2000; Bruges and Smith, 2008; Whitman *et al.*, 2015). This sentiment relates to considerations of participatory approaches as having been purposefully designed as means for communities to improve their quality of life using success criteria as determined by the community members (Pain and Francis, 2003). This thesis however considers that this logic may be overly simplified particularly when it is considered that most agri-environmental policy is implemented in good faith to protect the natural

environment for all citizens including farmers and their families. Moreover, as mandatory agri-environmental policies are legally binding, it is only logical that extension organisations like Teagasc would seek to use participatory practices for improving their clients' compliance with the requirements of agri-environmental policy. Taking account of these factors, this thesis continues to see a value in extension organisations progressing participatory practices as a means to enhance the support it provides to farmers who are seeking to improve their compliance with mandatory agri-environmental policy. To realise the increased use of participatory practices within extension organisations will however require moving the boundary of the community of people seeking to investigate reality with an intention of changing it (Freire, 1972; Freire, 1985; Fals-Borda, 2006) to include farm advisors and other relevant policy actors. A suggestion for the development of a specific Cross Compliance Community of Practice for exploring the practicalities of using participatory approaches for informing extension practices related to cross compliance will be given in Sub-section 8.3.3.

The learning arising from the CCITP Learning Sub-system also informed the development of the Narrative Inquiry Learning Sub-system and its concern with understanding the implications of using Narrative Inquiry to reveal farmers' subjective experiences of cross compliance. This focus arose from a period of reflection on the CCITP findings and the PhD researcher's determination that a lack of in-depth accounts about the ways that farmers' can experience cross compliance was likely affecting extension organisations understandings of the support needed by farmers when interacting with this policy. The rich accounts provided by the participating farmers about the various social, economic, technical and environmental phenomena affecting farmer decision-making in relation to the policy of cross compliance in the Narrative Inquiry Learning Sub-system are conjectured to provide significant insights for informing more contextually sensitive and culturally sustainable extension practices related to mandatory agri-environmental policy. Furthermore, returning to work with those farmers who had previously participated in the

CCITP likely improved the efficiency of the Narrative Inquiry Learning Sub-system. In particular, the establishment of a research rapport between the PhD researcher and farmers who participated in the CCITP appears to have made the process of inviting farmers to participate in the interviews, a more effectual process, in that all of the farmers who were asked to participate in the CCITP agreed to do so. Additionally, purposefully seeking the farmers' personal experiences of cross compliance was complemented by one participant who related that "*no one has ever talked to me about this end of farming before*". Moreover, the PhD researcher recognises that her participation in this learning sub-system has changed her worldview of the problematic situation of cross compliance extension practices and will significantly influence her practice in the future.

The last research phase, involved the creation of the Multi-loop Learning Sub-system for evaluating the efficacy, efficiency and effectiveness of the CCITP and Narrative Inquiry learning sub-systems for informing the PhD Learning System. The adoption of this systems approach also allowed the PhD researcher to consider her own practice and '*what it is that she did when she did what she did*' (adapted from Ison, 2010). The following insights arose from the concerted reflection that was performed in the Multi-loop Learning Sub-system.

Firstly, implementing a research intervention, which follows the principles of PAR, can be challenging for academic researchers particularly for researchers who are not overtly used to the peculiarities of this approach. Indeed, Argyris and Schön (1989) report that participatory researchers will often be faced with a dilemma of rigor and relevance when using action research type approaches such as PAR. This dilemma was experienced by the PhD researcher and she reports that throughout the research process that she was tasked with creating research insights which would be mutually satisfactory in terms of their substantive content for participants, research collaborators and academic partners.

A further insight revealed relates to the PhD researcher's physical location within the problematic situation and how this may have affected her ability to be critical of the agricultural sector. This aspect of her practice was specifically referenced by an audience member at an academic conference, who reported that she perceived that the PhD researcher was less critical of the current state of the Irish agricultural sector, when compared to previous speakers at the conference. The audience member related that this perspective likely related to the PhD researcher's relationship with the research context. The PhD researcher was slightly taken aback by this comment but also considered that it was a useful insight for promoting reflection about how working in a close collaboration with organisational partners in a participatory project may potentially limit the development of critical insights about the problematic situation under observation.

Furthermore, while the findings arising from the process of considering '*what it is that she did when she did what she did*' were instrumental for informing the PhD Learning System, the development of these insights required a considerable contemplation from the PhD researcher. This matter is highlighted because the PhD researcher believes that the process of pursuing reflection on her practice, created its own tensions in the PhD Learning System. In particular, she notes the complexities of providing an account of a legitimate academic process whilst at the same time acknowledging her own inefficiencies in the progression of this process. This complexity reflects previous reports which suggest that a reflection on one's own practice can be difficult in research environments where the problematic situation has a personal quality or is related to the organisation where the researcher works (Coghlan and Brannick, 2014; Traeger, 2016). This limitation may also be a reason, as to why as Ison (2010) highlights that many practitioners including researchers, scientists and policy makers can lack a reflexive understanding of their own practice and the rationalities (epistemologies) out of which they think and act. However, the PhD researcher regrets that she did not discover Ison's (2010) heuristic of reflecting on practice, as illustrated in Figure 11, at an earlier stage in her research journey, as she

now fully appreciates the utility of this model in explaining the dynamics involved when a practitioner is seeking to understand their own practice. If she were to begin the research process again, this is a particular aspect of her learning that she would bring with her. It should also prove useful to other practitioners who are interested in better understanding *"what it is that we do when we do what we do"* (p.50). Further insights arising from the PhD researcher's practice are provided in the following Sub-section 8.2.3.

To conclude, this thesis determines that the use of a learning process approach in the PhD Learning System effectively developed improved understandings of the different factors, which can affect interactions between farmers, extension organisations and mandatory agri-environmental policy. It would also seem that despite their limitations that participatory approaches remain an appropriate model for informing a multiplicity of stakeholders' perspectives to the development of more farmer-focussed extension practices. Seeking to inform extension practices related to mandatory agri-environmental policy is however a complex goal and will require the progression of social learning processes for developing improved empathy between the different stakeholders involved. It is also evident that there is no single way of knowing that will solve all of the issues associated with mandatory agri-environmental policy. We must therefore learn to work together to collectively determine solutions for realising an environmentally and socially sustainable agriculture sector, that is profitable for the farmer, and beneficial to all of 'us' and the cosmos. This vision will however require the development of extension practices that encourage truth telling and tolerance of perspective. It is also requires that farmers, advisors, researchers, policy actors, and all the different stakeholders involved and affected by mandatory agri-environmental policy, must learn to accept or at least tolerate that there are different ways of knowing the environmental sustainability issues affecting the agricultural sector.

Finally, the use of system thinking and practice as an approach to reflexive practice has allowed for the development of methodological considerations concerning the application

of the learning process approach. While this thesis, may not provide the best application of this approach, it is at the same time an empirical example, which could prove useful to future projects seeking to learn how to inform extension practices related to mandatory agri-environmental policy.

8.2.3 Learning from the experiential knowledge of the PhD researcher

The following insights were developed by the PhD researcher, as a result of her practice in the research process. These insights are not intended as an absolute account of her experiences rather they are personal observations, offered with the intention that they might aid researchers who embark on similar explorations in the future.

"My first observation relates to my growing appreciation that when seeking to investigate a problematic situation, that the researcher should avoid framing the situation, as one would expect a pantomime to be performed, in that it is rather unlikely that the situation under observation will have any obvious villains or indeed victims. It is more likely that the situation will be characterised by ordinary people, just like you and me, going about their daily activities (Checkland, 1981; Checkland, 2000). I partly offer this reflection because, while it cannot be denied that some farmers like Noel, have had negative experiences of the application and enforcement of cross compliance, I personally, through the various engagement activities progressed for the CCITP, have found that the majority of the stakeholders involved in the application and enforcement of cross compliance are just ordinary people seeking to perform their roles in an efficient and effective way. It is important to remember that these policy actors, as Frank and a number of other CCITP participants reported, are under scrutiny from their managers and regulators too. I am not making this point to deny the existence of difficult characters in the application and enforcement of cross compliance, as such characters do exist, rather it is because I want to avoid making generalisations based on a small sample of negative experiences. Indeed a similar sentiment was noted by Noel in his clarification that the "Department aren't the

worst in the world” and that rather his issues were with those “few individuals who make it hard on individual farmers”.

My second observation relates to the successful progression of the CCITP Learning Sub-system. I have extensively reflected on what might have happened (or not happened) had I not had the support of my research partners, the specialist advisors. I acknowledge and am sincerely grateful to these people for their help in realising the CCITP. In many ways, I consider that they were the organisational leaders referenced by Greenwood et al. (1993), in that it was their support and willingness to take a leap of faith in the project that allowed the participatory processes of the CCITP to be realised. I would however caution any researcher about to undertake a similar project, to be wary of some of the rhetoric associated with action research and participatory approaches. Particularly, as I believe that many accounts provide a false picture of the ease of using participatory approaches in academic settings. For example, while I spent considerable effort, networking and facilitating the CCITP, the emotional energy invested has proven difficult to quantify in terms of its academic achievement. This is a particular issue in a PhD process, as the PhD researcher is ultimately judged on their academic achievement and not on the quality of the engagement progressed with participants.

Thirdly, in relation to the Narrative Inquiry Learning Sub-system, I note that my participation in this research process was rewarding. In particular, I was impressed by how well the BNIM approach performed in allowing the farmers’ unique perspectives and ways of knowing to come through. Furthermore, I believe as Noel suggested in his interview that my participation in this learning sub-system served to improve my understandings of the ways in which farmers can experience cross compliance. Additionally, I am satisfied that he reported that his interview was “a good conversation” and that he would be “thinking about this for the next week”. Similarly, John also related that he found the process interesting and that it had felt more like a “dialogue” than an interview.

Finally, I wish to acknowledge that I found that performing the reflective techniques advocated in systems thinking were not without their cognitive complications. In particular, I note Checkland and Poulter (2010) who report that 'once, the practitioner has internalised the SSM process, so that he or she no longer has to stop and ask questions about it ... then the reflective practice becomes built-in too. The SSM user becomes a reflective practitioner' (p.235). I am not too sure how well I performed in this role, as for a very long time, I found that the language and concepts involved in SSM and other system processes were difficult to engage with. However, at a certain point (of which again I am not sure) I found that the reflective techniques of systems thinking became less confusing and altogether more pragmatic. I am extremely grateful to my supervisors who supported me to develop my ability to make use of systems' thinking and practice. I would however recommend that if advocates of systems thinking are genuinely interested in increasing societal engagement with their craft, that they like the agricultural extension organisations must learn how to inform enhanced extension practices".

In the following sections 8.3 and 8.4, some recommendations for acting and researching to continue a process of learning about how to enhance interactions between farmers, extension organisations and mandatory agri-environmental policy are presented.

8.3 Acting to enhance cross compliance extension practices

8.3.1 Disseminate the findings arising from the narrative inquiry interviews

As previously stated in Sub-section 7.3.2, it is essential that the learning developed from the experiential insights of the farmers' interviewed in the Narrative Inquiry Learning Sub-system is summarized and disseminated to all stakeholders who are interested and affected by the insights arising. This thesis provides an academic account of this knowledge, however in its present format, it is unlikely that this knowledge will appeal to many stakeholders outside of academia. This determination is made taking heed of Fals-Borda's (1987) advice that returning knowledge to those that created it, necessitates the

use of communication strategies, which avoid the *'airs of arrogance and the technical jargon that springs from the usual academic and political practices'* (p.345).

To achieve a meaningful communication strategy of the learning arising, the PhD researcher proposes to translate the findings of the Narrative Inquiry Learning Sub-system into a format suitable for dissemination in practitioner journals and at practitioner conferences. She believes that the successful realisation of this action could prompt further social learning processes about how cross compliance and its related extension practices can affect the lives of farmers. A caveat however, that was gleaned in the course of this research, is the strong possibility that many farm advisors and cross compliance enforcers will already have rich accounts of farmers' lived experiences of cross compliance, that they have developed from their daily dealings with farmers. This possibility is highlighted because if it happens that these stakeholders determine that insights arising from the Narrative Inquiry Learning Sub-system are not novel, it raises questions as to why more efforts are not directed to improving the social sustainability issues of the policy.

A recent development from the DAFM which seems to address some of the farmers concerns with understanding the logic and application of cross compliance inspections is the agreement of a new *Farmer's Charter of Rights 2015-2020* (DAFM, 2015a). This new charter explicitly sets out the DAFM's commitments to their farmer customers. It also provides increased details on how the DAFM progress cross compliance inspections. The Minister of Agriculture, Mr Simon Coveney reported at the time of its introduction that: *'the Charter is effectively an agreement between both parties on improving the standards and delivery targets for the Department's schemes and services, including on-farm inspections, and brings clarity to the arrangements around inspections'* (Coveney, 2015). Moreover, the response of the farm organisations to the new charter was primarily positive. The Irish Farmers Association President, Mr Eddie Downey, for example, reported that the new charter had set out clear objectives to underpin farmer rights. He stated:

'the inspection regime had become a bone of contention for the department and farmers. The charter will go some way to deliver fairness and respect for farm families on inspections and appeals' (Dermody, 2015).

There were mixed perceptions from the farmers in the Narrative Inquiry Learning Sub-system however regarding the updated charter. Tony and Frank reported that its introduction may ease some farmer angst in relation to cross compliance, while Noel on the other hand doubted that farmers would assert their rights under the charter: *"farmers are afraid to do their rights....Who is going to do it?"* Taking these diverse perspectives into account, it is difficult to suggest what the new charter may achieve in terms of improving farmer interrelations with the application and enforcement of cross compliance. It is however, possible to conclude that the new charter provides farmers with an improved opportunity to understand the application and enforcement of cross compliance. Further research into farmers' perspectives of the revised *Farmers' Charter* would help with building an appreciation of what the charter achieves in terms of improving knowledge interrelations. It may be even be appropriate that this question would form part of the Narrative Inquiry Learning Sub-system dissemination strategy that was revealed above.

8.3.2 Maintain and if feasible enhance Teagasc's ability to provide cross compliance supports to farmers

The findings of this thesis demonstrate that farmers appreciate having access to cross compliance supports. It is therefore recommended that Teagasc's ability to provide cross compliance extension support should be maintained and if feasible enhanced. Potential improvements would include the more regularised production of information supports such as the *Cross Compliance Workbook*. This recommendation is made, taking account that agri-environmental policies are in a constant state of flux. It is imperative that farmers and other relevant stakeholders are kept informed of any changes to the requirements of these policies.

Moreover, this thesis recommends that there is an increased provision of support to farmers who are struggling to meet the requirements of cross compliance. This suggestion is made taking heed of the range of social and economic difficulties highlighted by the participants of the CCITP and Narrative Inquiry learning sub-systems. In particular, it would appear sensible that Teagasc and any other organisations with an interest in improving the sectoral application of mandatory agri-environmental policy would prioritise the provision of additional supports to farmers experiencing difficulties with the financial and social costs of cross compliance. This action appears logical as the costs of cross compliance can be associated with the farmer's ability to adhere to the requirements of the policy (DEFRA, 2009; Swedish-Board-of-Agriculture, 2011). It may even be reasonable to suggest that farmers who are determined by an enforcement authority to be in breach of cross compliance requirement would automatically be provided with extension supports to develop a plan to rectify their compliance issue.

In relation to enhancing Teagasc's cross compliance extension practices, this thesis considers that there is a significant potential for Teagasc to adopt participatory extension practices which are more responsive to farmers' subjectivities. This recommendation relates to the commentaries provided in the CCITP and Narrative Inquiry learning sub-systems and in particular to Noel's call for greater empathy from farm advisors regarding what it means to be a farmer. This insight reflects previous observations which contend that extension organisations do not always have sufficient understandings of the different social and cultural issues affecting farmer engagement with the advocated practices and policies of 'sustainable agriculture' (Vanclay, 1997b; Norman *et al.*, 2000). It also gives credence to Riley's (2016) proposal that policy actors should seek to develop their 'good' farmer capital by purposefully increasing their engagement with farmers and by improving their awareness of the specific geographic contexts of farming. Furthermore, it would seem credible that Teagasc would take an account of the different economic, social and

cultural factors highlighted by the participants with a relevance to cross compliance decision-making when they are devising future extension practices.

Finally, this thesis suggests that despite the limitations, that there is a significant potential for extension organisations like Teagasc to increase their use of participatory practices for improving understandings of what farmers consider necessary for the realisation of 'sustainable agriculture' (Cerf *et al.*, 2000; Ison and Russell, 2000; Krasny and Lee, 2002; Triste *et al.*, 2014). In particular, Teagasc should explore the utility of discussion groups as mechanism for revealing farmers' perceptions of what could realise a greater sectoral conformance with the requirements of cross compliance and other types of agri-environmental policies. This recommendation necessitates the creation of structures which will specifically ask farmers for their perspectives of 'sustainable agriculture' in order that these practitioner perspectives may be shared with those stakeholders involved in the development and application of agri-environmental policy. This type of engagement process could also be used to inform a multiplicity of farmer perspectives to the Cross Compliance Communities of Practice suggested in the following Sub-section 8.3.3.

Conversely, while this thesis recommends that the amount and level of extension support provided by Teagasc to farmers in relation to cross compliance should be improved, it is acknowledged that the organisation appears to be aware of this need. An examination of the literature, reveals that Teagasc has made regular requests at the policy level for additional support and resources (see for example Teagasc (2013) submission to the public consultation on the Rural Development Programme for Ireland (RDP) 2014-2020). At present, the organisation is severely under-resourced and has insufficient farm advisors to provide extra cross compliance supports to farmers. These staffing difficulties were highlighted by the specialist advisors at a number of times in this research, whilst they are also referenced by Kelly *et al.* (2013) and Teagasc (2015) as having an impact on the organisation's ability to provide a strengthened extension service. Furthermore, this thesis recognises that implementing change in the context of large public institutions is difficult

as institutional constraints can affect the ability of an organisation like Teagasc to enact change (Cameron and Gibson, 2005; Pelling *et al.*, 2008; McDonagh *et al.*, 2013; Coghlan and Brannick, 2014). These limitations are significant barriers to the realisation of enhancements to Teagasc's extension practices and will need to be addressed at the policy level.

8.3.3 Advocate for a Cross Compliance Community of Practice

This thesis revealed a range of social and economic issues affecting the sectoral realisation of cross compliance in the Republic of Ireland. The revealing of these issues signifies that there is a need for targeted efforts towards improving the relationships and communications between the different stakeholders involved and affected by cross compliance. This suggestion reflects previous calls for increased synergy and knowledge exchange between those involved in cross compliance extension (Bennett *et al.*, 2006; EC, 2010). It also reflects a desire for improved relations between agri-environmental stakeholders in the Republic of Ireland (O'Toole, 2014; Daly and Ó Cinnéide, 2014; Ó hUallacháin *et al.*, 2015). Equally, Teagasc acknowledge that there is a potential for improving how it engages with other members of the Irish AKIS (Boyle, 2012; Kelly *et al.*, 2013). Moreover, a range of farmer and non-farmer participants in the CCITP also suggested that there was a significant potential for the different stakeholders to work together to enhance cross compliance extension practices. In particular, many of the cross compliance enforcers reported that they would welcome opportunities to become more involved in the provision of cross compliance information and training to farmers.

To realise improved interactions between the different stakeholders, involved or affected by cross compliance, this thesis advocates that there is a need for a dedicated Cross Compliance Community of Practice. Potential members of this community could include the different stakeholder groups that were identified during the stakeholder analysis of the CCITP. Indeed, it is observed that the diagram of the '*Cross Compliance Information*

Source' created in the CCITP could more usefully be described as a Cross Compliance Community of Practice as in Figure 17.



Figure 17: A Cross Compliance Community of Practice

This reconfiguration also highlights that each node identified in this diagram serves not only as information source but also as a stakeholder group with useful experiential insights about cross compliance.

If a Cross Compliance Community of Practice is successfully operationalized, it could focus on the development of protocols for improving the social sustainability of cross compliance. It could also increase the potential for social learning between the different community members. This is important as social learning is frequently cited as a construct for understanding the different interactions between conventional agriculture and the efforts that are implemented to pursue more environmentally sustainable forms (Cerf *et al.*, 2000; Ison and Russell, 2000; Krasny and Lee, 2002; Triste *et al.*, 2014). In particular, the members of the Cross Compliance Community of Practice could focus on learning how to ease the tensions with the use of participatory extension practices for improving the applied translation of mandatory agri-environmental policy. Similarly, there

is a need to develop guidance regarding the role of extension organisation in resolving matters revealed in participatory processes that are outside of their usual organisational remit. Understanding how this issue may be addressed is necessary to avoid practitioners (such as advisors and researchers) feeling 'let down' when the many claims of participation are not realised in practice (Reed, 2008). Moreover, this suggestion is made taking account of Korten (1980) who reports that development work: '*calls not for more sophisticated skills in the preparation of detailed project plans, but rather for skills in building capacities for action through action*' (p.502).

A challenge in realising the operationalization of a Cross Compliance Community of Practice is understanding how to realise coordination between the different stakeholder groups. It is suggested that the 'Learning and Innovation Networks for Sustainable Agriculture' (LINSAs) and the more recent development of the EIPs would provide a useful template for developing a Cross Compliance Community of Practice (see for example Brunori *et al.* (2013)). Additionally, insights gathered from farmer discussion groups as described in Sub-section 8.3.2 could also be used to inform a multiplicity of concerns to the Cross Compliance Community of Practice.

8.4 Researching to improve cross compliance extension practices

8.4.1 Explore the social sustainability of cross compliance

At the start of her thesis, the PhD researcher held a belief that improving farmers' awareness of the requirements of cross compliance could lead to an improved compliance with the requirements of the policy. At the end of her research, she now recognises that the problematic situation pertaining to cross compliance extension is more complicated than this initial awareness correlation. In particular, the revealing of significant social difficulties with the application and enforcement of cross compliance concurs with previous reports of the profession of farming as a stressful occupation (Hall and Pretty, 2008; Ní Laoire, 2012; Glover, 2015; Leonard, 2015). Moreover, the findings of the

Narrative Inquiry Learning Sub-system suggest that non-compliances are often related to a farmer's inability to pay for additional farm staff or farm infrastructural improvements. This finding may account for the discrepancies between the reasonable level of acceptance amongst Irish farmers about the principle of cross compliance (McCormack, 2012) and the continued detection of non-compliances during farm inspections (Agriland, 2015). Worryingly, it is also possible that economic factors affecting the supply of farm labour are having an impact on the personal safety of farmers during farming operations. This insight is significant and may have a relevance for the high level of farm fatalities recorded in the Republic of Ireland (Casey *et al.*, 2014).

Moreover, the revealing of these social issues signifies that the current situation of cross compliance is unsustainable. In particular, it would appear that while the policy of cross compliance has linked the financial and environmental aspects of sustainability, it has neglected considerations of the social dimensions and how this affects the practitioners. Due consideration from the different agencies that are involved in the development, application and enforcement of mandatory agri-environmental policies is needed to rectify this situation. Equally, there is a need for improved considerations of the complex and sometimes conflicting social, economic, and environmental goals of society. Indeed, Gomiero *et al.* (2011) report that sustainable agriculture systems will require integrated learnings of the environmental, the social, the economic and the technical issues associated with farming practice. An improved focus on these types of learning may potentially lead to an improved sectoral application of mandatory agri-environmental policies.

This thesis therefore recommends that those stakeholders involved in the development, application and enforcement of agri-environmental policy would seek to understand how to make agri-environmental policy, particularly mandatory policies like cross compliance more socially sustainable for the farmers who are expected to implement these policies. The rich contextual information about the different ways farmers can experience cross

compliance that were reported in the Narrative Inquiry Learning Sub-system should provide a starting point for such research.

Furthermore, policy actors should investigate how to improve their credibility in the eyes of the farmers (Riley, 2016). It is noted in the literature that farmers can often have a disdain towards 'experts' and their 'placeless' knowledge (Wynne, 1989; Wynne, 1992; Moran and Rau, 2014). This observation was affirmed in the Narrative Inquiry Learning Sub-system, with the participating farmers suggesting that they believed that many of those involved in the development and application of cross compliance and other such agri-environmental policies had only a limited awareness of the realities of farming life. Tony in particular reported that cross compliance was *"dreamed up by someone sitting in a comfortable office trying to think how we could make this thing better. They never stood in a sheep pen and pared a sheep [hooves] in their lives"*. Furthermore, improved understandings amongst policy actors about the ways in which agri-environmental policy can affect the personal lives of the practitioners may lead to the development of more socially sustainable agri-environmental policies. This notion was highlighted by John, who reported that while he believed that regulatory policies were necessary, he felt that policy actors should make a better effort to devise pragmatic policies. Similarly, a number of farmers in the CCITP Learning Sub-system reported that cross compliance enforcers should progress their engagement with farmers with an intention of clarifying the logic behind cross compliance requirements.

It was also evident from the narratives provided in the Narrative Inquiry Learning Sub-system that a farmer's relationships with a regulatory authority can impact on their engagement with agri-environmental policy (Hall and Pretty, 2008; Fisher, 2013). All of the participating farmers reported to have had some form of on-farm interaction with policy enforcers with diversity of experiences shared in relation to the ways in which these inspections were progressed. Noel in particular reported that his inspection experiences had affected him greatly on a personal level and that the inspections *"... marked me in*

the sense that they put a fear into you, you know that kind of thing". This insights highlight the need for policy actors to investigate and construct more culturally acceptable agri-environmental policies (Burton and Paragahawewa, 2011; Glover, 2015). This thesis considers that the Theory of Cultural Capital developed by Bourdieu (1986) and later applied to agriculture by Burton and Paragahawewa (2011) and Macken-Walsh *et al.* (2012) should be explored to better understand the cultural implications of the application and enforcement of mandatory agri-environmental policy on the lives of farmers and their families.

Conversely and notwithstanding the reported difficulties with the application and enforcement of cross compliance, it is important to remember that significant negative environmental externalities remain attributable to the agricultural sector (c.f. O'Neill *et al.*, 2013; Power *et al.*, 2013 Copland, 2015; Daly and Deakin, 2015; EPA, 2016). It is also important to acknowledge that the DAFM and other enforcement agencies are required to mediate conceptualisations from certain interest groups who believe that enforcement is an appropriate means to increase the risk of 'punishment' for those farmers who do not adequately implement environment standards (Osterburg *et al.*, 2005). Moreover, not all farmers are compliant and some will intentionally try to cheat the system (Barnes *et al.*, 2013; Fraser, 2013). The existence of non-compliant farmers was acknowledged by the Narrative Inquiry Learning Sub-system participants. However, it was evident that the participating farmers, particularly the dairy farmers, considered that intentionally devious farmers should receive attention from the regulatory authorities. This situation creates a challenge for the regulatory authorities, who must ensure that the policy of cross compliance is socially sustainable, whilst at the same time appropriately reprimanding farmers who have a disregard for the requirements of mandatory agri-environmental policy and the potential externalities arising from deviant practice.

8.4.2 Include the subjective experiences of farm advisors and policy actors in future research studies concerned with cross compliance and its related extension practices

This thesis recommends that the subjective experiences of farm advisors and other policy actors are sought and valued in future studies of mandatory agri-environmental policy and its related extension practices. In particular, farm advisors are key practitioners in the extension process and it is essential that their views are included in future studies. It is also recognised that the advisors task is not easy (Juntti and Potter, 2002; Klerkx and Jansen, 2010; Cerf *et al.*, 2011; Koutsouris, 2012; McDonagh *et al.*, 2013). It would therefore seem logical to include their perceptions of what might enhance extension practices related to mandatory agri-environmental policy.

While the perspectives of non-farmer stakeholders including advisors and enforcers were sought and included in the CCITP, it is considered that most of the insights and perceptions expressed were largely from the participant's professional worldview. It is believed that purposefully seeking stakeholders' personal experiences of engaging with farmers in relation to mandatory agri-environmental could develop further worthwhile insights. Advocating for the inclusion of the subjectivities of policy actors in this way, does not negate the need to include farmers' perspectives and experiences in research about farmers, rather it is a way to ensure that pursuit of farmer subjective experiences of mandatory agri-environmental policy does not exclude other involved and affected stakeholders from sharing their subjective experiences. The potential for this scenario is highlighted by Long (2004) who reports that while participatory interventions can open up a research space for the negotiation and initiative for some groups, the negotiation of this space can simultaneously block the interests, ambitions and political agency of others.

8.4.3 Explore the potential for power relations to affect the process and outcomes of participatory research approaches

This findings of this thesis support the previous reporting of the application and enforcement of cross compliance as a politically sensitive issue (Aviron *et al.*, 2008; Bartolini *et al.*, 2012). Equally, the findings confirm the significant connotations of power in the progression of participatory approaches (Pain and Francis, 2003; Baum *et al.*, 2006; Collins and Ison, 2009; Hage *et al.*, 2010; Soma and Vatn, 2014). This research however did not explicitly consider power relations and there is therefore little reference to issues of power in this thesis. This is an acknowledged weakness of the research process. In particular, the PhD researcher recognises that the revealing of limitations with the ability of extension organisation to realise participant preferences for cross compliance would have benefitted from a greater consideration of power relations. Furthermore, the PhD researcher has concerns about how ethical it is to ask participants to reveal issues of importance when it evident that extension organisations have a limited ability to resolve participant issues related to the application and enforcement of cross compliance.

It is therefore recommended that further research is conducted to explore how consideration of power can be better accounted for in participatory research interventions. Researching the political limitations of using participatory approaches for informing extension practices related to mandatory types of agri-environmental policy is crucial to avoid raising stakeholder expectations beyond what is realistically achievable in the context of any given problematic situation. This is a critical research need, as failing to meet participant expectations can lead to 'disenfranchisement' and the development of strained relations developing between participants and those seeking to progress participatory approaches (Silver and Campbell, 2005).

This is not to say that participatory approaches cannot be used for informing enhancement to extension practices related to mandatory agri-environmental policy.

Rather, it signifies that there is a need for a purposeful reflection on the potential of power relations to affect the process and outcomes of participatory processes (Zuber-Skerritt and Perry, 2002; Ballard and Belsky, 2010; Smith *et al.*, 2010). Critical Systems Heuristics (CSH) could offer a pragmatic framework for undertaking such reflections. In particular, the CSH approach of unfolding and questioning the 'facts', values and boundary judgements circumscribing an 'improvement' to a particular system of interest (Ulrich and Reynolds, 2010) could provide opportunities for both researchers and participants to understand the selectivity of the reference systems at work in determining who gets to say what is 'the right thing' in a particular situation (Reynolds, 2014). This type of reflection is essential if we are to move away from the use of top-down approaches to a greater realisation of participatory and more farmer-focussed approaches for informing extension practices related to mandatory agri-environmental policy.

8.5 Learning from 'learning how to inform extension practices related to mandatory agri-environmental policy'

This thesis has presented the opportunities and challenges of using a learning process approach for enhancing interactions between farmers, extension organisations and mandatory agri-environmental policy. It involved a research process, which is believed to have been 'worthwhile', in that it developed a significant deepening of insight into the use of participatory approaches and participants' ways of knowing for informing extension practices related to mandatory agri-environmental policy. The PhD Learning System also surfaced a range of social, cultural and economic factors, which may be affecting a sectoral application of cross compliance. Finally, there was the creation of critical insights about the processes and practices used to answer the research question. These findings suggest that while there is a considerable potential for extension organisations to use participatory practices for developing rich understandings of farmers' preferences for mandatory agri-environmental policy and its related extension practices. A limitation in realising participant preferences is that extension organisations have little influence over

the application and enforcement of mandatory agri-environmental policy. To overcome these limitations, this thesis presented some recommendations for continuing a process of acting and researching to inform enhanced extension practice related to mandatory agri-environmental policy.

Learning how to enhance extension practices is essential, if we are to improve the social, financial and environmental sustainability of the agricultural sector. Moreover, it requires that we all consciously deepen our understandings and tolerance of, the different ways of knowing mandatory agri-environmental policies. The PhD researcher believes that she has improved her understandings as a result of her participation in this research and she will use this learning in her future personal and professional life.

However, this is not the end of the conversation and therefore this thesis concludes with the final sentence of the *'Biographical Sketch'* in which the PhD researcher noted: *"I am aware, now more than ever that I will need to continue to continue with my learning"*.

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Appendices

A. Sample CATWOE exercise

CATWOE

A system that will enable the research student to become involved in various conversations taking place about cross compliance in order to improve her understanding of the many worldviews involved and write about them in a thesis.

Clients

- Farmers
- Other 'involved and affected' stakeholders
- The non-human environment (nature)
- Society

Actors

- Research student
- OU & Teagasc supervisors and colleagues
- Farmers
- Advisors
- Other 'involved and affected' stakeholders

Transformation

- To explore the complexities of stakeholder engagement with cross compliance training
- To understand, map and engage relevant stakeholders
- Research student to progress the work without falling into the researchers trap of needing to control the PAR intervention
- Follow PAR principles as much as possible to ensure that the research can stand up to scrutiny of peers
- Do the best she can

Worldview (of Catherine Seale)

Solutions are possible, listening to each other helps, even at the end of the day we still don't agree, we both know each other that little bit better.

Owner

In my opinion the stakeholders own this project. Their participation is vital. PhD examiners who can make or break it (as a PhD thesis) as well as the financial and professional backing of the OU and Teagasc, not to mention the good will of my supervisors. Finally the research student and her ability to progress the study to fruition...

Environmental constraints

- Research environments of the OU i.e. internal policies, budgets etc.
- Personal lives of those involved

B. Sample Critical Systems Heuristic exercise

| Sources of Influence | Boundary judgements informing a system of interest (s) | | | |
|------------------------------|--|--|--|---------------------|
| | <p>S = Cross compliance Information System</p> <p><i>Social roles (stakeholders)</i> <i>Specific concerns (stakes)</i> <i>Key problems (Stakeholding issues)</i></p> | | | |
| Sources of motivation | <i>1. Beneficiary</i> | <i>2. Purpose</i> | <i>3. Measure of improvement</i> | The involved |
| | Farmers, society and the non-human world | To ensure that cross compliance information generated and supplied matches the needs and requirements of farmers, information providers notably farm advisors, the competent control authorities, service providers, society and the non-human world. | Understanding cross compliance information requirements. Supplying this information to all end users in a manner that matches their expectations and requirements bearing in mind the key concepts embodied in the preferred 'sustainable agriculture' approach. | |
| Sources of control | <i>4. Decision maker</i> | <i>5. Resources</i> | <i>6. Decision environment</i> | |
| | Farmers and other information providers. | Research student, student's supervisors, willing Teagasc and non Teagasc advisers, willing farmers, willing researchers and other willing stakeholders (A limited amount of time and capital associated with normal OU and Teagasc research activities plus a separated limited Teagasc cross compliance budget) | Individual participants' decision to participate. Financial budget. EU and National policy. Public preference and pressure. | |

| | | | | |
|------------------------------|--|---|--|---------------------|
| Sources of knowledge | <p><i>7. Expert</i></p> <p>Farmers and other information providers.</p> | <p><i>8. Expertise</i></p> <p>Amalgamated knowledge that provides a clearer understanding of the needs and wishes of farmers in cross compliance information provision.</p> | <p><i>9. Guarantor</i></p> <p>Increased engagement with cross compliance and associated training for instance an increased awareness amongst farmers of the workbook, positive changes made at the farm level as an associated outcome of this interaction while also potential amendments to the cross compliance training approach as a result of information providers engagement with farmers perceptions.</p> | |
| Sources of legitimacy | <p><i>10. Witness</i></p> <p>Farmers who do not engage with official cross compliance information providers or those who 'tried' to engage but for whatever reason did not get the information they would prefer. Information providers who feel constrained by time and money budgets and cannot do all the information</p> | <p><i>11. Emancipation</i></p> <p>The perceptions of those outside the system should be explored but respected in the sense that if they choose to remain outside the system this is their entitlement particularly as interaction with cross compliance training is voluntary. Compliance is however mandatory. For those information providers outside of the system it would be interesting to explore their attitudes and whether they would like</p> | <p><i>12. Worldview</i></p> <p>In this instance we have the time and resources of a research project to investigate this. Currently the cross compliance information system network appears to be working but muddled. It is not immediately clear how one goes about entering or using the system</p> | The affected |

provision tasks that they would prefer. Civil society members outside of this particular system.

to be involved more. It would also be interesting to explore how members of civil society outside of the system interact is it through formal government channels or through NGO's?

for cross compliance information. The new cross compliance Workbook in a good starting roadmap for the interested citizen to use for navigating the system.

C. Diagram of stakeholders who are sources of cross compliance information



D. Simple Comments Sheet

Exploring Stakeholder Engagement with Cross Compliance and Good Agricultural and Environmental Condition Training

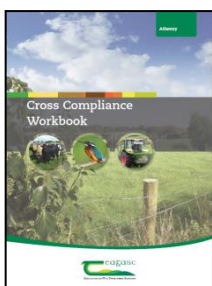


(2013 - 2015)



Funded as a Teagasc Walsh Fellowship in collaboration with the Open University

Cross Compliance concerns all farmers and is best described as the variety of EU regulations and directives on the environment, public health, animal health, plant health, animal welfare and Good Agricultural and Environmental Condition that farmers must follow in order to receive payment under the Common Agricultural Policy Single Farm Payment Scheme. Understanding all these requirements can however be daunting, which is why Teagasc provides a Cross Compliance and Good Agricultural and Environmental Condition support service to farmers. This service includes talks and events and has recently been expanded to include a new workbook that provides a self-assessment tool that farmers can use to check their compliance levels. The workbook was developed using inputs from farmers, the Department of Agriculture, Food and the Marine (DAFM) and advisers. It has been well received in the farming community and won the overall Teagasc Innovation Award in 2012.



New Cross Compliance Workbook

This research project hopes to build on the success of the workbook by using participatory research practices to explore how knowledge sharing and engagement with this workbook can be used to enhance Teagasc's Cross Compliance and Good Agricultural and Environmental Condition training delivery and uptake at the farm level. Previous

experience has found that having farmers, advisers and other relevant stakeholders working together as co-drivers in the knowledge transfer process can help create agricultural advice that is 'fit for purpose' and 'taken up' at farm level. This research will explore this idea further.

Every effort will be made to ensure that participation is representative of the stakeholders interested and affected by the Cross Compliance and Good Agricultural and Environmental Condition measures.

Can you help?

This research project is in its early stages and would appreciate your help. If you have any thoughts or information that you think could help, please share them in the box below. Also if you would like to contribute further please fill in your details and I will contact you in the near future.

Thank you.

Catherine Seale

Please add your thoughts here

If you would like further information or would like to take part please include your contact details below:

Confidential*

Name:

Telephone number:

Address:

Email:

Or contact the research student direct.

Catherine Seale is based at the Rural Economy Research Centre, Teagasc, Mellows Campus, Athenry, Co. Galway.



She can be contacted on 091 845200 or by email catherine.seale@teagasc.ie

E. Detailed Comments Sheet



Exploring Stakeholder Engagement with Cross Compliance And Good Agricultural and Environmental Condition Training



(2013 - 2015)

Funded as a Teagasc Walsh Fellowship in collaboration with the Open University

Cross Compliance concerns all farmers and is best described as the variety of EU regulations and directives on the environment, public health, animal health, plant health, animal welfare and Good Agricultural and Environmental Condition that farmers must follow in order to receive payment under the Common Agricultural Policy Single Farm Payment Scheme.

Understanding all these requirements can however be daunting, which is why Teagasc provides a Cross Compliance and Good Agricultural and Environmental Condition support service to farmers. This service includes talks and events and has recently been expanded to include a new workbook that provides a self-assessment tool that farmers can use to check their compliance levels. The workbook was developed using inputs from farmers, the Department of Agriculture, Food and the Marine (DAFM) and advisers. It has been well received in the farming community and won the overall Teagasc Innovation Award in 2012.



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Every effort will be made to ensure that participation is representative of the stakeholders interested and affected by the Cross Compliance and Good Agricultural and Environmental Condition measures.

Más mian leat páirt a ghlacadh sa tionscadal seo trí Ghaeilge cuir in iúl do Caithriona an taighde é le do thoil / If you wish to participate in this project through the Irish language please notify Catherine

Confidential*

Can you help?

This research project is in its early stages and would appreciate your help. If you have any thoughts or would like to contribute further please fill in your details below and I will contact you in the near future.

Thank you.

Catherine Seale

Contact details:

Name:

Telephone Number:

Address:

Email:



About the Research Student:

Catherine is a Walsh Fellow based at the Rural Economic Research Centre at Teagasc's Mellows Campus in Athenry, Co. Galway. She can be contacted at the address above or by phoning (091) 845200. Alternatively you can email her at catherine.seale@teagasc.ie She can be contacted on 091 845200/087 2285650 or by email catherine.seale@teagasc.ie

***Anonymity, privacy and confidentiality**

This research follows the ethical guidelines of the Sociological Association of Ireland which requires that the anonymity and privacy of those participating in the research is respected at all times. Any personal data collected will be kept confidential at all times and stored in a secure manner in accordance with the provisions of the Data Protection and Freedom of Information Acts. Please note that any non-personal information you give to the research team may be quoted or used as an example for illustrative purposes in reports, articles or presentations. However be assured that you will not be identifiable in any publications as no personal information such as name or specific location will be given.

Reference: _____

(Office use only)

Part A - Your Profile

1. What county are you farming in?

2. How many years are you the key decision maker?

3. Do you currently farm?

Please tick appropriate box (✓ tick)

Full time

Part time

Other (Please explain) _____

4. How much land are you currently farming?

Owned: _____ Hectares _____ Acres

Leased/Rented: _____ Hectares _____ Acres

5. What age category are you?

Please tick appropriate box (✓ tick)

- | | | | | | |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> 15-19 | <input type="checkbox"/> 20-24 | <input type="checkbox"/> 25-29 | <input type="checkbox"/> 30-34 | <input type="checkbox"/> 35-39 | <input type="checkbox"/> 40-44 |
| <input type="checkbox"/> 45-49 | <input type="checkbox"/> 50-54 | <input type="checkbox"/> 55-59 | <input type="checkbox"/> 60-64 | <input type="checkbox"/> 65-69 | <input type="checkbox"/> 70-74 |
| <input type="checkbox"/> 75-79 | <input type="checkbox"/> 80-84 | <input type="checkbox"/> 85+ | | | |

6. What is your level of formal agricultural education?

Please tick appropriate box (✓ tick)

- None
- 180 hour Course
- 1 year in agricultural college/Green Cert
- Award holders Level 6 or higher
- Degree or higher in Agriculture
- Other form of formal education (e.g. non-agricultural qualification, trade, etc.)

(Please explain) _____

7. What is your main farm enterprise(s)?

Please tick appropriate box (✓ tick)

- Dairy**
- Beef (Please specify)**
 - Calf to store Store to store Store to beef Suckling to beef Weanling to beef
 - Suckling to weaning Suckling to store Replacements
- Sheep (Please specify)**
 - Store lamb producer Store to fattening Fattening producer Replacements
- Tillage**
- Pigs**
- Horses**
- Other (Please explain)** _____

Part B - Questions on Cross Compliance

8. What do you understand by 'Cross Compliance'?

(Please fill in the box below)

9. Where would you go to for information about Cross Compliance?

a. _____

b. _____

c. _____

d. _____

10. Are you a Teagasc client?

Please tick the appropriate box (✓ tick)

Yes

No

11. How would you like to receive information about Cross Compliance?

(Please list in order of preference your top 3 ways 1, 2, 3)

| | | | |
|---|--|-----------------------------|--|
| Seminar (1-2hrs) | | Newsletters/Magazines | |
| Farm visit with advisor | | Workbook/Manual | |
| Short course (2-6hrs) | | Discussion group (1-2hrs) | |
| Phone neighbour/ Discussion group member | | Farm walk | |
| Contact relative | | Media /Farmers Journal etc. | |
| Online/Web | | National Conference | |

- 12. What information do you feel you need in relation to Cross Compliance?**
(Please fill in the box below)

- 13. Had you heard of Teagasc's new Cross Compliance Workbook before today?**

Please tick the appropriate box (✓ tick)

Yes

No (skip to question 15)

- 14. If "yes,";**

(a) How did you hear about it?

(Please explain)

(b) Have you completed the self-assessment exercise in the workbook?

Yes

No (please explain) _____

- 15. What do you think of the workbook?**
(Please fill in the box below)

16. Have you any other thoughts or comments on Cross Compliance? For example what do you think needs to be researched or looked at in more detail?

(Please fill in the box below – feel free to continue overleaf if you need more room)



Thank you.

F. Sample correspondence to prioritised non-farmer participants

Walsh Fellow (Teagasc & The Open University),
Rural Economy & Development Programme,
Teagasc Mellows Campus,
Athenry,
Co. Galway,
Date

Re: Cross Compliance Information and Training Project

Dear

I'm currently undertaking a PhD study with Teagasc and the Open University that aims to explore how farmers access and use farm inspection/Cross Compliance information and training with particular reference to a new Cross Compliance workbook (attached) published by Teagasc. I would be very interested to hear if you have time, how the (name of organisations) deals with information requests from farmers about Cross Compliance or farm inspections. Is this something that you get asked about often?

To explain my interest, I am currently working on exploring this whole area using what is best described as a participatory approach in that I hope to ask as many people and parties possible about their thoughts particularly regarding what they make of the new workbook. The first step so far has involved identifying parties who are either interested or affected by Cross Compliance using stakeholder mapping tools (see attached map). This was necessary to ensure that all relevant people are informed of the project and given the opportunity to participate.

The next task is to contact as many of the identified interested/affected parties as practical in order to determine what the current thinking on farm inspection/Cross Compliance information and training is. This will help create an understanding of what information farmers want and need in order to remain up to date in the complicated Cross Compliance policy area.

I would be most grateful in the context of the above if you would consider the following questions and maybe let me know if you have any thoughts. I will be asking a number of people to do this, in order to see if any common themes or areas arise. This should help focus the study as well as provide direction.

Questions:

- 1. Do you get many farmers contacting you/your office for information on farm inspections/cross compliance information?*
- 2. Why do you think they contact you or your office in particular?*
- 3. What information do you feel a farmer would most benefit from in order to be in compliant with the various regulations under Cross Compliance and Good Agricultural and Environmental Condition (GAEC)?*
- 4. What is the best way of ensuring that they have this information?*
- 5. How do you feel you or your organisation contributes?*

6. *Do you think that the current information system is working or is it something that could be improved?*
7. *Do you have any comments on the attached pdf. of Teagasc's new Cross Compliance Workbook?(Please contact me if you would like a hard copy).*
8. *Have you any comments on the attached farm Inspections/Cross Compliance Information Map* – does this represent the reality on the ground?*

*NB- This map was designed primarily to identify interested and affected people in relation to farm inspections and Cross Compliance. This is to ensure that all relevant people are given the opportunity to input into the project. It may not be complete and if you feel that it needs correction, feel free to contact me.

Thank you for taking the time to read this. Please see below for a short project brief. I also attached a more detailed version, a copy of the new Teagasc Cross Compliance Workbook as well as a copy of the Cross Compliance Information Map that has been developed to identify interested and affected parties

Any thoughts you have would be much appreciated. Also feel free to contact me if you have questions or queries,

Kind regards,

Catherine Seale

Further information on the Cross Compliance Information and Training Project

Project context:

Cross Compliance concerns all farmers and is best described as the variety of EU regulations and directives on the environment, public health, animal health, plant health, animal welfare and Good Agricultural and Environmental Condition (GAEC) that farmers must follow in order to receive payment under the Common Agricultural Policy Single Farm Payment Scheme. Understanding all these requirements can however be daunting, which is why Teagasc provides a Cross Compliance and GAEC support service to farmers. This service includes talks and events and has recently been expanded to include a new workbook that provides a self-assessment tool that farmers can use to check their compliance levels. The workbook was developed using inputs from farmers, the Department of Agriculture, Food and the Marine (DAFM) and advisers. It has been well received in the farming community having won the overall Teagasc Innovation Award in 2012.

Research objective:

This research project hopes to build over the next two years on the success of the workbook by using participatory research practices to explore how knowledge sharing and engagement with the workbook can be used to enhance Teagasc's Cross Compliance and GAEC training delivery and uptake at the farm level. Previous experience has found that having farmers, advisers, researchers and other relevant stakeholders working together as co-drivers in the knowledge transfer process can help create agricultural advice that is 'fit for purpose' and 'taken up' at the farm level.

It is hoped to use the collaborative approach to learn:

- i. How Cross Compliance and GAEC information is shared and used by Irish farmers and farm advisers?*
- ii. What stakeholders understand by Cross Compliance and GAEC?*
- iii. Which factors encourage or discourage the adoption of new information tools such as the new Cross Compliance and GAEC workbook?*
- iv. Do farmers implement changes at the farm level following Cross Compliance and GAEC training?*
- v. How do participatory approaches influence the engagement of farmers and farmer advisers with innovations such as the new Cross Compliance and GAEC workbook?*

Research benefits

This project will work with stakeholders to create a deeper understanding of Cross Compliance and GAEC training. Research insights gained will help Teagasc when developing future training programmes. It is also expected that increased stakeholder

engagement with Cross Compliance and GAEC training could provide benefits for the environment and animal welfare, as well as public, animal and plant health. While increased awareness of good land maintenance practices may additionally improve farm efficiency, sustainability and profitability.

Catherine is very interested in hearing the opinions of interested and affected people in relation to any of the above questions. Please feel free to contact her either by email or phone if you wish to take part.

Contact details - Sonraíteagmhála

Research student:

Macleinn taighde: Catherine Seale

Location:

Suíomh Rural Economy Research Centre,
Teagasc, Mellows Campus, Athenry, Co. Galway.

Contact numbers:

Teil: 091 845200/087 2285650

E-mail:

R-phoist: catherine.seale@teagasc.ie

Catherine also hopes to ask those who take part at a later stage how they found the participatory process and to hear their views on its role in advice provision.

Every effort will be made to ensure that participation is representative of those interested and affected by the Cross Compliance and GAEC.

Más mian leat páirt a ghlacadh sa tionscadal seo trí Ghaeilge cuir in iúl do Caithriona an taighde é le do thoil / If you wish to participate in this project through the Irish language please notify Catherine.

Thank you.

Catherine Seale

What is Cross Compliance?

Cross Compliance is the system under which farmers must follow a variety of regulations on the environment, public health, animal health, plant health and animal welfare in order to receive a payment under the Single Payment Scheme. In addition, land must be maintained in Good Agricultural and Environmental Condition (GAEC). This system has been part of the farming landscape since 2005 and is reasonably well accepted. For example a studyⁱⁱ of 878 farmers undertaken by NUJ Galway and Teagasc in 2012 found that 71% either agreed or strongly agreed with the statement: *"Farmers should only be eligible to be paid the Single Farm Payment if they meet Good Agricultural Practice/Cross Compliance standards"*. Of the remaining farmers surveyed, 19% neither agreed nor disagreed while 10% either disagreed or strongly disagreed with the statement. The findings of this project indicate a similar pattern of responses.

Cross Compliance Information and Training

Farmers can consult many agencies, bodies and individuals in relation to Cross Compliance. Under EU regulations, the Irish Government established an approved Farm Advisory System (FAS) to advise farmers on land and farm management matters in relation to Cross Compliance. This service is provided by both private consultants and Teagasc advisers. A full list of qualified FAS advisers is available on the DAFM website:

<https://www.agriculture.gov.ie/farmerschemespayments/crosscompliance/farmadvisorysystem/>

Each farmer will make their own decision in relation to who they contact for information and advice. Surprisingly not all information sources are used regularly by farmers. For example some of the government officials contacted as part of this research indicated that they did not have regular farmer-led contact. It was suggested by one official that this may be because many information providers have a significant regulatory role which probably results in farmers less willing to contact them directly.

The diagram on the opposite page is a representation of the different agencies, bodies and individuals that could be used by a farmer for information on Cross Compliance. It would be interesting to validate this diagram with practical experience so please if you have any suggestions or comments send them to us using the contact details on the back page.

Feedback on Cross Compliance Information and Training

This project focused on the Cross Compliance service provided by Teagasc and in particular the new workbook. Around 10,000 copies of the workbook were distributed last year primarily at Cross Compliance information and training events (see box below for event types). Every county held an event in 2013 (mainly during Cross Compliance Fortnight in November) with an overall turnout of around 5,000 farmers. Unfortunately due to staffing shortages not every county was in a position to deliver each training type listed below.



Cross Compliance Information & Training Events:

- 4-5 Hours short courses (classroom and farm walk)
- 2-3 Hours short courses (classroom only)
- Public meetings
- Discussion group meetings

CROSS COMPLIANCE INFORMATION SOURCES*

Competent Control Authorities

County and City Councils

Appeals Bodies

Oifig an Ombudsman
Office of the Ombudsman

Political Representatives

Farming Media

Local Press & Radio

Research & 3rd Level Institutions

Formal Information Sources



Quality Assurance & Marketing Initiatives

Farmers & Discussion Groups

Other Organisations

Farming Organisations

Social & Other Media

Family, Neighbours & Friends

Farm Service Providers i.e. vet, contractor etc.

*Images are for illustration only and do not constitute all available sources.

While the majority of farmers who participated in this project provided feedback on the workbook (see front page), some also commented on the training they received. Most of this feedback was positive. For example: *"these courses are very helpful from Teagasc on cross compliance - especially all the photos shown of different yards & situations showing how we can comply & make simple changes to manage yards/sheds/storage"*. While, it would appear that training events met the expectations of the majority of participants, there was some criticism. For example one farmer believed that the training placed *"too much emphasis on pollution in various forms, from land bale silage storage to sacrifice paddocks"*.

In addition, a number of farmers provided suggestions for future training and information programs. Unfortunately for space reasons, not all of these can be dealt with here, however be assured that if you provided feedback that it has been passed on. The following is a summary of the five suggestions requested most:

Top Five Farmer Suggestions:

1. Regular Cross Compliance events to keep farmers up to date;
2. More on farm help in relation to Cross Compliance from advisers;
3. More information in relation to nitrates, phosphorous and soiled water;
4. Specific Cross Compliance record-keeping courses;
5. More information on farmer rights during and after Cross Compliance inspections

These suggestions are useful not only for Teagasc; they are also likely to be useful to all agencies with a remit in Cross Compliance. In addition to farmer comments we also received suggestions from the wider agricultural community regarding additional workbook content. These have also been passed to Teagasc's Environmental Specialists and will be taken into consideration when future copies of the workbook are produced.

Cross Compliance Enforcement

While this research did not set out to seek views on the enforcement of Cross Compliance over 25% of the farmers who participated, commented on enforcement and inspections. Therefore these comments are reflected in this report. It should be noted that the Department of Agriculture, Food and the Marine is the official source of information in this regard and should be the first point of contact with matters that relate to a formal or legal requirement. Farmers should also be aware of the Farmer's Charter which sets out specific delivery targets between the DAFM and their farmer customers. This charter can be accessed at:

<http://www.agriculture.gov.ie/customerservice/customerfarmerscharter/>

The following is a sample of the comments received in relation to the enforcement of Cross Compliance:

Notice of inspections:

"The inspection is not really an issue as department staff are only doing their job and try to be as helpful as possible. It's the constant threat of not knowing when and where that is the problem"

The interpretation of regulations:

"Rules seem to be constantly changing or at least the interpretation of them is changing".

"Expecting a zero level of pollution from farms while giving discharge licenses to Councils and industry is unfair."

(Cont. next page)

Inspections:

While a number of farmers indicated that they had an inspection and "*found it fine*" or "*everything went ok*" there were also examples when this was not the case:

"Had unannounced inspection, it was not written down or made clear what information I was to submit afterwards. Many months elapsed before issues arose & I suffered penalties as a result."

Penalties

There were a number of opinions expressed on penalties:

"Every year there are more changes and additions, something I and most farmers would be aware of, these payments are our livelihood so we have got to avoid penalties."

"Inspections should be based on environmental issues in an area or tagging issues in the food chain and not be "random". The feeling in farming circles is that inspectors have to find something wrong. No one gets a clear run"

There was also a belief that engagement rather than penalties would have a better result:

"If the Dept. inspectors could give a warning if there is a problem & if the farmer doesn't put it right after a set time then he gets a penalty."

"The Department should try to make farmers view the regulations as a means of progressing their farm yards, to make for better working conditions, & also as places to produce cleaner healthier produce."

Stress and Confusion

In addition many indicated that they found Cross Compliance stressful. The following is a sample of the comments received:

"The volume of regulation that has to be complied with is excessive. It is causing stress to farmers worrying about inspections"

"Find things very stressful. Good idea with this handbook"

"Hearing and reading about cross compliance is both frightening and daunting"

"Have a huge fear factor. Have heard all the horror stories"

Some remarked that regulations should be simplified as according to one, its "*impossible for individual farmers to be fully aware of all the rules*". A particular area where clarification was requested was in relation to the 'grey areas' of nitrates and soiled water. This was also noted by a government official (employed in water quality) who felt that there was a need to find a better way to deliver nitrates information to farmers as historically the environment story was "*dumbed down too much*". It was also suggested that it would be beneficial to have more input from the farm lobby groups in the preparation of Cross Compliance information as they were often more trusted by farmers.

On the positive side, it was noted by a number of regulators that improved water quality in parts of the country was an indication that the majority of farmers were working on complying with the current legislation. It was suggested however that certain farmers may need extra support and that *"some free consultancy should be available"*. This was reiterated by another official who felt that the most important tool in improving water quality was discussion around the 'farmer's kitchen table'.

A further issue that would appear to be causing confusion are the terms associated with GAEC. Conflicting management objectives were highlighted, with one farmer asking *"when the removal of rushes etc. interferes with the wildlife, nesting pheasants, leverets etc. What does one do on those situations?"* This potential conflict was also highlighted by a Government official who said *"statistics show that a high proportion of GAEC issues are with regard to scrub and this has become a serious issue now when SFP is not paid on eligible land. The scrub, which is a valuable habitat, is cleared out in most cases and the "E" in GAEC is diminished."*

Difficulties in meeting tagging requirements were also highlighted by a number of farmers, with one suggesting that *"sheep tagging in my view, unworkable"*, while another highlighted that it is *"very hard to keep tags on cows etc. any idea of better tags (smaller maybe?)"*.

Thanks to all participants for taking part and sharing their knowledge of Cross Compliance

The Next Steps

The next steps of this project will involve asking between 10-15 farmers for their accounts of using the workbook and its effect (if any) on their farming practice. This type of evaluation will be invaluable as while there has been a positive initial reaction to the workbook, it is important to find out how it actually performs when used on the farm. Already from the first round of research we have some evidence of its impact with one farmer reporting that they: *"got this workbook at Open Day and working towards sorting out incompliant areas. The booklet is very helpful and very well explained"*. While this feedback is useful we must now investigate whether this opinion is shared by other farmers and if so to what extent. It is hoped that this can be achieved by asking a sample of farmers from each sector to participate. If you have received this report following attendance at one of the Cross Compliance events, it is possible that you may be asked to take part. However please do not feel under any pressure as participation will be entirely voluntarily and your participation to date (if any) is anonymous.

Any Comments or Thoughts on this Report?

We are very interested to hear your opinion on any of the findings contained in this report. Please contact Catherine Seale (PhD Student), Rural Economy & Development Programme, Teagasc Mellows Campus, Athenry, Co Galway. Tel: +353 91 845270 or catherine.seale@teagasc.ie

Acknowledgements

The Cross Compliance Information and Training Project is funded by Teagasc's Walsh Fellowship Scheme. Team members are Catherine Seale (Walsh Fellow); Dr Áine Macken-Walsh and Dr Kevin Heanue (Teagasc Rural Economy and Development Programme (REDP)); Dr Chris High, Prof. Andy Lane and Dr Martin Reynolds (Open University, UK); and Tim Hyde and Mark Gibson (Teagasc KT Directorate). We gratefully acknowledge the participation and assistance of individual farmers and Teagasc administrators and advisers.

References:

http://www.teagasc.ie/publications/view_publication.aspx?PublicationID=1896 Accessed: 30-06-2014 12:14pm

McCormack, M. (2012). A study of Irish farmers' attitudes towards environmental policy instruments. M Sc Thesis, National University of Ireland, Galway

H. CCITP academic and practitioner dissemination

| Author | Date | Title | Event | Audience |
|---------------|---|--|---|--|
| Seale, C | 13 th June, 2013 | Poster: Exploring Stakeholder Engagement with Cross Compliance Information Training | Future of Farm Advisory Services, Delivering Innovative Systems, University College Dublin, Belfield, Dublin 4. | Knowledge transfer professionals |
| Seale, C | 18 th -19 th November, 2013 | Poster: Exploring Stakeholder Engagement with Cross Compliance Information Training | CIEEM Irish Section Conference and AGM 2013 Protected Habitats and Species - A Best Practice Approach, Red Cow Moran Hotel Dublin, Naas Road, Dublin. | Ecology and environmental management professionals |
| Hyde, T | 7 th November 2013 | Paper: Teagasc Cross Compliance Training | Agri Environment Conference Proceedings 2013, Tullamore Court Hotel, Tullamore, Co. Offaly | Farmers, advisors and agri-environmental professionals |
| Seale, C | 8 th March 2014 | Paper: Exploring Stakeholder Engagement with Cross Compliance | Sociological Association of Ireland Postgraduate Student Conference, NUI Galway | Social science students and supervisors |
| Seale, C | 9 th October, 2014 | Paper: Participatory approaches in the development of Cross | LUCID Early Career Researchers Conference on "Integrating the Social and | Social science and environmental science students and early career |

| | | | | |
|----------|---------------------------------|--|--|--|
| | | Compliance information. | Natural Dimensions of Sustainability" LUCSUS - Building Josephson, Lund, Sweden | researchers |
| Seale, C | 13 th November, 2014 | Paper: Cross Compliance – Improving Farmer Engagement | Agri-Environment Conference 2014, Tullamore Court Hotel, Tullamore, Co. Offaly | Farmers, advisors and agri-environmental professionals |
| Seale, C | 25 th November, 2014 | Paper: Participatory research approaches in the dissemination of agri-environmental policy objectives and requirements | Tuesday Seminar, REDP, Teagasc, Athenry, Co. Galway. | Teagasc researchers |

I. BNIM Interview Consent Form

Research Participant Consent Form



(2013 - 2015)



Funded as a Teagasc Walsh Fellowship in collaboration between The Open University and Teagasc's Rural Economy Research Centre, Athenry, Co. Galway

Please initial box

I confirm that I have read and understand the information sheet supplied to me for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that my participation is voluntarily and that I am free to withdraw up to the point when data is anonymized (approximately December, 2015) without giving any reason.

I understand that information I give to the research team may be quoted or used as an example for illustrative purposes in reports, articles or presentations.

I understand that my name will not appear in any reports, articles or publications.

I agree to take part in the above study.

I understand that if I have any further queries I can contact:

Research student: Catherine Seale

Location: Rural Economy Research Centre,
Teagasc, Mellows Campus, Athenry,
Co. Galway.

Contact numbers: 091 845200

E-mail:

catherine.seale@teagasc.ie

For matters that cannot be answered or resolved by the research student please feel free to contact her supervisors using the following details.

Teagasc supervisor:**Dr. Áine Macken Walsh**

Location:

Rural Economy Research Centre, Teagasc, Mellows Campus, Athenry, Co. Galway.

Contact number:

091 845200

Open University supervisor:**Dr. Chris High**

Location:

Engineering and Innovation Department,
Faculty of Maths, Computing and Technology
The Open University, Walton Hall, Milton Keynes,
MK7 6AA, United Kingdom

Contact number:

00 (44)1908 655631

I wish to be kept informed of how the research progresses

Name of Participant

Date

Signature

Principal Investigator_____
Date_____
Signature

When completed, please return to Catherine Seale in the envelope provided. One copy will be returned to you, while the original will be kept on file at Rural Economy Research Centre, Mellows Campus, Teagasc, Athenry, Co. Galway.
