



SAMPLE 1

Department of Economics

MPhil/PhD Proposal Form

Applicant (Student)

Please enter your full correspondence details here:

Details	
Title (Mr, Miss, Mrs)	Mr.
Forename	Cathal
Surname	Buckley
Telephone No.	
Fax No.	
Email Address	cathal.buckley@nuigalway.ie
Postal Address	Rural Economy Research Centre, Teagasc, Athenry, Co. Galway

Applicant(s) (College Staff)

Please enter full correspondence details for primary NUIG supervisor(s) who will act as supervisor(s) for the project:

Details	NUIG Primary Supervisor	NUIG Supervisor 2
Title	Dr.	
Forename	Thomas	
Surname	van Rensburg	
Telephone No.	091-493858	
Fax No.	091-524130	
Email Address	thomas.vanrensborg@nuigalway.ie	
Department/School	Department of Economics	
Postal Address	School of Business & Economics, NUI, Galway	

Co-Applicants (Institution/Research Centre)

Please enter full correspondence details for Institution Co-Applicant(s) who will act as co-supervisor(s) for the project:*

Details	Institution Supervisor 1	Institution Supervisor 2	Institution Supervisor 3
Title	Dr.		
Forename	Stephen		
Surname	Hynes		
Telephone No.	091-9791854		
Fax No.			
Email Address	Stephen.hynes@teagasc.ie		
Department/School			
Centre	Rural Economy Research Centre (RERC)		
Postal Address	Teagasc, Athenry, Co. Galway.		

* Where applicable some institutions such as Teagasc are involved in co-supervision.

Project Title	Willingness to Pay for Public Access to a Common Pool Resource: A Contingent Valuation Assessment of Commonage in Ireland
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Research Centre Location for Project:	NUIG/RERC, Teagasc
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Start Date: 1 st January 2004	Finish Date: 31 st March 2009
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Is the project externally funded:	Yes	
If yes please name the sponsor: Teagasc (Walsh fellow)	X	

Breakdown of Funding

	Year 1	Year 2	Year 3
Fellowship Stipend*	€21,000	€21,000	€21,000
Other Project funds			
Total	€21,000	€21,000	€21,000

1. PROJECT ABSTRACT (300 words max.)

This study will use a stated preference valuation technique to inform management thinking about public access and conservation policy for commonage in Ireland. It will employ the Contingent Valuation Method to (1), reveal demand for use and non-use values associated with improved habitat conservation and public access (by visitors, residents and the general public) to specific commonage sites in the west of Ireland 2) to measure the level of compensation payments necessary to persuade land managers/local leisure facility developers to provide public access and to carry out the required improvements and maintenance to support this and, 3) to identify respondent preferences for different types of payment vehicle and different institutional mechanisms involved in providing public goods associated with commonage. The study will build on previous research in this field by the primary supervisor. This research provides

an innovative, low cost means of studying recreation demand whilst at the same time contributing valuable management insights for an important common-pool resource.

2. PROJECT DESCRIPTION

Title: Willingness to Pay for Public Access to a Common Pool Resource: A Contingent Valuation Assessment of Commonage in Ireland

2.1 Justification (e.g. economic, gaps in existing knowledge, expected benefits) (400 words max.)

Commonage dominates Ireland's uplands and covers approximately half a million hectares and involves about 12,000 farmers.¹ Historically, Commonage has been managed for livestock production, crops and hunting.^{2,3} Recently, due to the outstanding environmental² landscape and recreation appeal of commonage this interest has given rise to demands for other types of recreation including hill-walking, mountaineering, orienteering, mountain biking (upland areas), and horse riding, walking, sports pitches, caravan/camping/picnic sites, and golf courses (lowland commonage).⁴ This is related to increasing personal incomes and is due to the fact that the environment is known to represent a luxury good.^{5,6}

However, in recent years conflicts over commonage resource use have become more widespread particularly between land managers and recreational users. In addition, the recreational benefits associated with commonage are now considered to be economically as important as output of livestock or crops adding another dimension to policy making.^{7,8,9} Conflicts have arisen in recent years over access and use rights to commonage where rightly or wrongly stakeholders feel they have a right to access commonage because it is perceived as a free good.⁴ The ambiguous nature of property rights assigned to common-pool resources (i.e. *non-excludible* but *rival* in consumption)^{10,11,12} by different interest groups is known to exacerbate such conflict¹³. Multi-stakeholder partnerships can provide a means of internalising social costs (involving Pareto relevant environmental externalities) through the introduction of output sharing arrangements (providing public access) between user groups without the reassignment of property rights (an advantage for land managers).¹³

Increased ecological pressure (land degradation, overgrazing, commonage framework plans)^{1,2} and conflicts over commonage use has meant that the public are calling for a re-evaluation of the subsidy (by CAP) paid out to land managers and are insisting that such resources should be targeted more toward public goals of land management rather than to private production. These include recreation benefits and the maintenance of ecological functions – water quality, biodiversity, and aesthetic values all at a regional scale and in the context of mixed land uses.¹⁴ The implementation of payment schemes designed to enhance the commonage environment, or to widen public access may also depend on the supply of public funds, which must be justified to the public exchequer, the European Commission and the public at large. Developers of the CAP are keen to reduce the costs of direct payments, pursue a multi-functional approach to EU agriculture (through, for example, modulation¹⁴) and promote initiatives which are linked to environmental public goods rather than food production as set out in Agenda 2000 agreement.^{15,16} Although non-market valuation has been applied in Ireland to forests^{17,18} and Angling,¹⁹ the literature associated with public access to farmland in Ireland and elsewhere remains limited²⁰ and an assessment of public goods associated with access to commonage has not been undertaken despite the widespread concern and enormous public interest in the resource.

The attitude taken by respondents to a particular payment vehicle may affect willingness to pay/accept bids independent of other explanatory variables such as household income and the general methodological features of the CV survey. For example, respondents may exhibit preferences for different types of payment vehicle. The use of tax levies, permit prices or gate fees can affect WTP and may give rise to payment vehicle bias.^{21,22} Respondents may also have preferences for the types of institutions which are involved in the provision of environmental benefits and also the means by which land managers might be compensated for public good provision.²³ With respect to commonage, farmers may prefer permit prices, gate fees or amenity car parking as a means of compensation rather, than through agri-environment regulation.

Thus a high priority for policy makers concerned with commonage habitats is: to 1) have a more comprehensive estimate of the demand for recreation benefits (associated with public access and conservation) than currently exists by multi-stakeholder interest groups 2) to identify the most suitable mechanism which will ensure for effective provision

of environmental public goods associated with commonage and, 3) to measure the willingness to accept compensation by land managers to employ conservation measures and provide improved public access.

2.2 Methodology and other details: (Please ensure that sufficient details are provided in terms of hypotheses, the relevant/appropriateness of methodologies being proposed.) (1,500 words max.)

This study will use questionnaire surveys (600 respondents at 3 sites) of individuals and stakeholder focus groups to estimate economic values for improved public access to three commonage sites in the west of Ireland (Ballyconneely, Roundstone bog complex, Leenaun). Geographic information systems (digitised to ESRI GIS format) and aerial Photography (OS 1995 series), data will be used to quantify a range of attributes (site productivity, scenic view, footpaths, hiking trails, biodiversity) at each of the three sites to provide digital coverage of commonage areas.

Attributes relevant to site productivity and recreation site selection will then be identified by *four* stakeholder/focus groups in the upland sites (farmers, hill walkers, local residents, conservationists) and four stakeholder groups in the lowland commonages (farmers, local residents recreation visitors, leisure developers).^{24,25,26} Qualitative attitudinal information will be elicited from these focus groups about their willingness to participate in the study and their priorities for *three* hypothetical scenarios (Livestock extensification/moorland conservation, Improved public access, leisure development)²⁷. Individuals who stand to benefit (positive externality) from the scenario and who express a non-negative WTP for the hypothetical good/scenario will be asked a willingness-to-pay question. Respondents who incur costs (i.e. in case of compensation to farmers for biodiversity conservation or improved public access) will be asked a WTA question.¹⁷ A multiple bound dichotomous choice contingent valuation method - a thoroughly tested stated preference technique²⁸ will be used to estimate use and non-use values to be evaluated through Hicksian compensating variation measures. The surveys will also offer respondents a choice between different types of payment regime and different institutions which might be responsible for implementing improved access to commonage. This would enable a test for attitudes about different types of payment vehicle and institutions to be carried out in the various commonage areas. This approach has been used successfully in recreation areas in the UK²⁴ Data from each of the user groups will then be used jointly to construct a cost/benefit model to evaluate the efficiency of each of the *four* scenarios. These estimates will be used to inform future management and policy decisions and regarding commonage.

2.3 Workplan and Timescale: (The objective here is to clearly demonstrate that thought has been given the major components of the workplan rather than being overly prescriptive).

Task	Title	Timescale	Any other relevant information
Number	Text	Number of Months	Text
1	Literature review of previous work conducted on valuation using stated preference methods in Europe and the USA.	3	
2	Design survey instrument targeted at commonage farmers	3	
5	Develop a sample frame and gather data from commonage farmers at sites in County Galway and County Mayo	3	
6	Analysis of commonage farm data sets	3	
7	Develop a willingness-to-pay survey and collect recreation data at three sites in County Galway	9	
	Use Random Utility Models for willingness-to-pay data analysis	3	
	Develop a willingness-to-accept survey targeted at farmers	3	
	Use Multinomial Logit Model for willingness-to-accept analysis	3	
9	Editing and write-up of thesis	6	

2.4 Expected outcomes: (e.g. deliverables) (400 words max.)

This research will initially lead to a paper in the Journal of Farm Management on the costs to agriculture of improving public access to commonage in Ireland, and on recreation demand and environmental values associated with commonage by recreationists (target jnl: Land use Policy) and land managers (target jnl: Journal of Environmental Planning and Management). The practical relevance of the research for policy and management will be submitted as a paper (target jnl: Irish Journal of Agri-Environmental Research - *Tearmann*) and detailed in reports to government departments and the public. The final outcome will be a PhD thesis awarded by the National University of Ireland, Galway.

3.1 AFFIRMATION

Signature of applicant (student): _____ **Date:** _____

(Attach list of any relevant publications or reports if applicable for the applicant)

3.2 AFFIRMATION

Signature of primary NUIG supervisor: _____ **Date:** _____

(Attach list of 5 most recent peer-reviewed scientific publications for the primary NUIG supervisor)

Di Falco, S., van Rensburg, T.M. 2008. Making the commons work: conservation and cooperation in Ireland. *Land Economics* 84: (4): 620-634.

van Rensburg, T.M., Murphy, E. and Rocks, P. 2009. Commonage land and farmer uptake of the rural environment protection scheme in Ireland. *Land Use Policy* 26: 345-355.

Hynes, S., Buckley, C, van Rensburg, T.M. 2007. Recreational pursuits on marginal farm land: a discrete-choice model of Irish farm commonage recreation. *Economic and Social Review* 38: (1). 63-84.

Mill, G.A., van Rensburg, T.M., Hynes, S. and Dooley, C. 2007. Preferences for multiple use forest management in Ireland: citizen and consumer perspectives. *Ecological Economics* 60: (3). 642-653.

van Rensburg, T.M., Mill, G.A., Common, M. and Lovett, J. 2002. Preferences and multiple use forest management. *Ecological Economics* 43: 231-244.

Signature of Institution supervisor (Co-supervisor): _____ **Date:** _____

(Attach list of 5 most recent peer-reviewed scientific publications for institution supervisor)

Hynes, S. and Cahill, B. 2007. "Valuing the benefits to the local community of supplying recreational facilities in community owned forests: an application of the contingent behaviour method" *Small-scale Forestry*, 6:219–231.

Christie, M., Hanley, N. and Hynes, S. 2007. "Valuing Enhancements to Forest Recreation using Choice Experiments and Contingent Behaviour Methods" *Journal of Forest Economics*, Volume 13, Issues 2, P 75-102

Hynes, S., Buckley, B and van Rensburg, T. 2007. "Recreational Pursuits on Marginal Farm Land: A Discrete-Choice Model of Irish Farm Commonage Recreation". *The Economic and Social Review*, Vol. 38, No. 1: 63 – 84.

Hynes, S., Hanley, N., Garvey, E., 2007. "Up the Proverbial Creek without a paddle: Accounting for variable participant skill levels in Recreational Demand Modelling". *Environmental and Natural Resource Economics*, 36: 413 – 426

Mill, G., van Rensburg, T., Hynes, S. and Dooley, C. 2007. "Valuing Preferences for Multiple Use Forest Management in Ireland: Citizen and Consumer Perspectives" *Ecological Economics* 60: (3) 642-653.

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- ¹ Bleasdale, A. 1995. *The vegetation and ecology of the Connemara uplands, with particular reference to sheep grazing*. PhD Thesis, University College, Galway.
- ² Bleasdale, A. and Sheehy-Skeffington, M. 1995. The upland vegetation of north-east Connemara in relation to sheep grazing. In Jeffrey, D.W., Jones, M.B. and McAdam, J.H. (eds). *Irish Grasslands, their biology and management*. Royal Irish Academy, Dublin.
- ³ Dunne, J. 1995. Gamehunting on the uplands. Past, present and future. In Hogan, D. and Phillips, A. (eds.) *Seeking a partnership towards managing Ireland's uplands*. Proceedings of a conference held in University College Galway, 13th-15th October, 1995.
- ⁴ Nugent, F. 1995. Managing the upland regions of Ireland. In Hogan, D. and Phillips, A. (eds.) *Seeking a partnership towards managing Ireland's uplands*. Proceedings of a conference held in University College Galway, 13th-15th October 1995.
- ⁵ Kline, J. and Wichelns, D. 1996. Measuring public preferences for the environmental amenities provided by farmland. *European Review of Agricultural Economics* 23: 421-436.
- ⁶ Martínez-Alier, J. 1995. The environment as a luxury good or "too poor to be green"? *Ecological Economics* 13: 1-10.
- ⁷ Dunne, W. and O'Connell, J.J. 2000. Public good issues in direct payments for livestock producers. In Proceedings of the fifth international symposium on livestock farming systems, EAAP Publication No. 97 2000.
- ⁸ Keyes, M. 1995. View from the top. In . In Hogan, D. and Phillips, A. (eds.) *Seeking a partnership towards managing Ireland's uplands*. Proceedings of a conference held in University College Galway, 13th-15th October, 1995.
- ⁹ Phillips, W.E.A. and Tubridy, M. 1994. New supports for heritage tourism in rural Ireland. *Journal of Sustainable Tourism* 2: 112-129.
- ¹⁰ Berkes, F. (ed.) 1992. *Common property resources: ecology and community-based sustainable development*. Belhaven Press, London.
- ¹¹ Cornes, R. and Sandler, T. 1991. *The theory of externalities, public goods, and club goods*. CUP, Cambridge.
- ¹² Baumol, W.J. and Oates, W.E. 1993. *The theory of environmental policy*. CUP, Cambridge.
- ¹³ Hackett, S., Schlager, E. and Walker, J. 1994. The role of communication in resolving common dilemmas-experimental evidence with heterogeneous appropriators. *Journal of Environmental Economics and Management* 27: 99-126.
- ¹⁴ Falconer, K. and Ward, N. 2000. Using modulation to green the CAP: the UK case. *Land Use Policy* 17: 269-277.
- ¹⁵ Dunne, W. and O'Connell, J.J. 2000. The main sources and components of farm incomes in the 21st century. In Pitts, E. *Investment and perspectives*. Agri-food economics conference, Teagasc, December 2000, Dublin.
- ¹⁶ Binfield, J.C.R. and Hennessy, T.C. 2001. Beef sector re-structuring after Agenda 2000: an Irish example. *Food Policy* 26: 281-295.
- ¹⁷ Clinch, J.P. and Murphy, A. 2001. Modelling winners and losers in contingent valuation of public goods: appropriate welfare measures and econometric analysis. *Economic Journal* 111: 420-443.
- ¹⁸ Scarpa, R., and Chilton, S.M., Hutchinson, W.G. and Buongiorno, J. 2000. Valuing the recreational benefits from the creation of nature reserves in Irish forests. *Ecological Economics* 33: 237-250.
- ¹⁹ Davis, J and O' Neill, C. 1992. Discrete-choice valuation of recreational angling in Northern Ireland. *Journal of Agricultural Economics* 43: 452-457.
- ²⁰ Crabtree, B., Potts, J. and Smart, T. 2000. Statistical modelling of incentive design under limited information – the case of public access to farmland. *Journal of Agricultural Economics* 51: 239-251.
- ²¹ Morrison, M.D., Blamey, R.K. and Bennett, J.W. 2000. Minimising payment vehicle bias in CV studies. *Environmental and Resource Economics* 16: 407-422.
- ²² Freeman, A.M. III. 2003. *The measurement of environmental and resource values: theory and methods*. Resources For The Future.
- ²³ Jorgensen, B.S. Syme, G.J. 2000. Protest responses and willingness to pay: attitude toward paying for stormwater pollution abatement. *Ecological Economics* 33: 251-265.
- ²⁴ Hanley, N., Koop, G., Alvarez-Farizo, B., Wright, R.E. and Nevin, C. 2001. Go climb a mountain: an application of recreation demand modeling to rock climbing in Scotland. *Journal of Agricultural Economics* 52: 36-52.
- ²⁵ Hutchinson, W.G., Chilton, S.M. and Davis, J. 1995. Measuring nonuse value of environmental goods using the contingent valuation method – problems of information and cognition and the application of cognitive questionnaire design methods. *Journal of Agricultural Economics* 46: 97-112.
- ²⁶ Chilton, S.M. and Hutchinson, W.G. 1999. Do focus groups contribute anything to the valuation process? *Journal of Economic Psychology* 20: 465-483.
- ²⁷ Van Rensburg, T.M., Mill, G.A., Common, M. and Lovett, J. 2002. Preferences and multiple use forest management. *Ecological Economics* 43: 231-244.
- ²⁸ Bateman, I.J., Langford, I.H., Jones, A.P. and Kerr, G.N. 2001. Bound and path effects in double and triple bounded dichotomous choice contingent valuation. *Resource and Energy Economics* 23: 191-213.