

FORESTRY COMMISSION

Description of the Research Project or Services

1.	Research Purchasing Manager (C&FS)	Marcus Sangster
	Relevant PAG	Socio-economic and urban greening

2.	Name of FR Programme Manager (PgM) or Project Manager (PM) and staff	PGM: Anna Lawrence Project managers: Bianca Ambrose-Oji, Norman Dandy, David Edwards, Mariella Marzano, Jake Morris, Liz O'Brien, Amy Stewart
	Name of Institution/company	Forest Research
	Official address	Northern Research Station Roslin, Midlothian EH25 9SY
	Telephone No.	
	e-mail address	anna.lawrence@forestry.gsi.gov.uk
	Programme Life (years)	4 Years This programme will receive £550k in FY11/12, £400k in FY12/13 and then £300k in both FY13/14 and FY 14/15. In real terms therefore the programme capacity will decline to less than half initial capacity, within two years.
	Start Date	1 st April 2011
	Completion Date	31 st March 2015
	Revision Dates	31 st March 2012/2013/2014

3. Title of Research Project or Service

Societal benefits and governance of trees, woods and forests

4. Abstract of proposed research (Summary to be used on website/FRCC etc) (200 words)

The programme aims to support delivery of forest policy related to social benefits and institutional processes, by addressing key evidence gaps identified by FC policy advisors. It will enhance knowledge of the links between governance and delivery models, cultural ecosystem services, and behaviour change. This will result in enhanced capacity to deliver ecosystem services based on trees woods and forests through appropriate delivery models.

An important aspect of applied social research is the ability to make informed judgements about whether experience in one context can be transferred to another. This programme combines qualitative and quantitative methods across a range of scales (community, forest, local authority, region, country, UK) to provide reliable findings and recommendations. It also aims to combine scientifically rigorous results (e.g. surveys and multiple case study

evaluations) with appropriate participatory approaches that ensure findings are meaningful and representative of relevant stakeholders.

The research is addressed through four work areas:

- Well-being – the cultural ecosystem services experienced from trees woods and forests
- Society – the distribution of those services across different geographical and social sectors of society
- Governance – the structures and process that shape the decisions and delivery mechanisms, that affect the ecosystem services
- Evaluation and appraisal – methods for measuring and sharing those benefits.

5. Aims and objectives (word limit 1500)

5.1 Aim of the research

This research programme aims to provide evidence to enable successful implementation of policy and practice, to deliver benefits from trees, woods and forests (TWF) to individuals, organisations and society across the urban/rural continuum. It addresses three interlinked themes: behaviour change, alternative delivery models, and ecosystem services.

Four Work Areas address the business need to move towards a rigorous, reliable and relevant knowledge base:

1. Well-being and quality of life – how TWF contribute in a variety of ways to the well-being of individuals and groups, and how these benefits are distributed across society
2. Society - understanding the patterns of opportunity, engagement and impacts linked to TWF that are expressed at the level of communities or of wider society
3. Governance – the relationship between institutions, decision-making processes, and sustainable management of TWF in the wider landscape
4. Evaluation and appraisal – a focus on frameworks, methods and tools to support decision-making in forestry
5. Knowledge transfer – this includes writing papers, reports and articles as well as material for the FR website, and delivering presentations, seminars and workshops.

Key questions have been identified through a four-stage prioritisation process with PAG members: pre-PAG discussions; PAG meeting; post-PAG prioritisation by country leads, and a meeting attended by all PAG members plus other relevant policy advisers and researchers, in Birmingham, to reach consensus on the final list of priorities.

Three overarching research themes (lasting 2-4 years) have been identified which will require research that cuts across our existing Work Areas.

1. Behaviour change

How and to what extent does engagement with TWF and TWF policies and initiatives/programmes lead to more sustainable values, attitudes and behaviours? The transition to sustainable behaviours among individuals and groups in society is an important outcome for government policy, for example in response to climate change, yet the links are

still poorly understood in relation to TWF. It is necessary to determine the conditions under which TWF related interventions can facilitate change in values, attitudes and behaviours in individuals, groups, society and its organisations and institutions to support a transition towards a more sustainable society and economy.

The research will consider key mechanisms of behaviour change available to policy-makers and managers: 1. grants, regulations, and other incentives and disincentives, and 2. initiatives to encourage formal and informal engagement with woodlands, both directly, for example through recreation and organised events, volunteering and employment, and indirectly, for example through education initiatives and provision of information to the public. Also included in this are ideas of environmental citizenship and pro-environmental behaviour, including the potential of social networking sites and other media to support evidence gathering and public engagement, and to foster behaviour change.

Substantive issues for research are likely to include: changes towards behaviours that contribute to individual well-being; promotion of woodland creation, including carbon planting; behaviour that reduces the spread of pests and diseases through recreational use of forests and transport of plant materials.

A key methodological challenge will be to develop robust ways to demonstrate causal links between interventions and behaviours for different groups in society. This will be addressed through in-depth case studies using mixed methods approaches focusing on key gaps in evidence identified in the literature and through collaboration with policymakers and researchers beyond FR.

2. Alternative delivery models

This theme addresses a very live question in TWF policy in all three countries: how do different models of ownership, decision-making and delivery affect the provision of ecosystem services to society? To date, little work has been done linking TWF, planning, ownership and governance with ecosystem services, and the role of local authorities has been neglected. This theme will build on a number of preliminary studies conducted during FR's 'previous social research programme (2008-11).

The first priority is to make sense of, and provide a road-map to, existing experience. Governance and delivery models have proliferated in Scotland, Wales and England, and there are important sources of experience in Europe and North America. A typology of delivery models will be developed, building on broad distinctions between public, private, and civil society ownership and management, as a basis for refining the agenda, methodology and outputs of the research. At a strategic level the research will consider landscape partnerships, and other forms of partnership working, as a delivery mechanism that may encompass different types of organisation, forms of ownership, etc. It will also explore governance processes within and beyond FC to support a transition towards more adaptive forms of forest management and a culture of organisational learning.

The questions within this theme are developing in a changing policy context and future studies will be fine-tuned as priorities emerge. The theme considers both societal outcomes and the governance processes involved in delivery. An important focus will be to highlight the implications of both aspects for policy and practice across the sector. Methods and criteria for evaluating alternative models will be developed through engagement with

stakeholders. Building on current trends in government policy discourse, we anticipate that the analysis will employ an ecosystem services framework to express societal benefits of alternative approaches.

3. Ecosystem services:

In order to make the above links between behaviour change, delivery models and the ecosystems framework more explicit, and to facilitate interdisciplinary research with other programmes in FR, a further cross-cutting theme focuses on the social processes of understanding, valuing and communicating ecosystem services.

Research will focus on the following approaches:

1. the ecosystem services framework – how can this approach be operationalised and what are the implications for forest policy and management?
2. evaluation and planning – what are the pros and cons of the diverse approaches currently available for programme/project evaluation, ecosystem valuation and spatial prioritisation, including interdisciplinary approaches to evaluation of greenspace initiatives using a combination of deliberative methods and economic analysis.

This theme continues existing social research into the development and use of decision support systems (DSS) to support spatial forest landscape planning. The overall goal is to ensure existing and new DSS are taken up by the industry and successfully meet end user requirements.

Most of this work is funded by the EU, with match funding from CFS as part of our EU funded projects, although currently only the Northern ToSIA project is co-funded by the Societal Benefits PAG.:

1. 'MOTIVE' (2008 to 2012) is an EU FP7 project to develop methods and tools to improve policy making and adaptive forest management in response to climate change.
2. 'ForestCLIM' (2008 to 2012) is an EU Interreg project with similar overall aims to MOTIVE. SERGs role focuses on support to DSS development in a Scottish case study.
3. Northern ToSIA (2008 to 2011) is an EU Northern Periphery Programme (NPP) project that is developing spatial planning tools for assessing impacts of forestry and land use plans and policies in four northern European case studies. In each case, SERG is coordinating stakeholder engagement across the European case studies, and supporting DSS development with potential end users and researchers in other FR programmes in case studies within UK (Clocaenog for Motive; Cairngorms for Northern ToSIA).

Related research, fully funded by CFS, comprises our investigation into the uptake across the GB forestry sector of DSS developed by FC. This requires close work with other programmes within FR as well as forest planners, forest management policymakers, and other stakeholders, including in the private and sector, to enhance its impact on the sector.

Links with other programmes:

Societal dimensions affect the delivery and experience of impacts addressed through other programmes in FR, and this programme works closely with several of these. In particular, work is being developed under the following areas:

Valuing greenspace using more deliberative methods: with ‘Valuing ecosystem services’ programme and ‘Ecosystem Services of Forests and Wooded Landscapes’

Biosecurity: research questions to address the links between science, policy and practice, and stakeholder behaviour change, are under discussion. One work package in this programme addresses this (PERMIT Cost action).

Adaptive management: social researchers are leading on human dimensions of adaptive forest management, through the ‘Forest Climate Change Adaptation Strategies.’

EU projects: the societal benefits programme provides match funding for some of these (NorTosia and Trees4Future) while other programmes cover the match funding for the social component of Motive and ForestCLIM.

5.2 Work Areas

The four work areas outlined below provide information on the work packages (projects) that will be undertaken over the next four years. The relevant cross-cutting research themes are highlighted in bold in each work package.

Programme development – each work area includes time committed to develop future options for multiplying the CFS budget through external funding.

<p>Work Area 1 Coordinator Staff involved % of CFS budget</p>	<p>Well-being and quality of life Liz O’Brien Bianca Ambrose-Oji, Norman Dandy, David Edwards, Anna Lawrence, Mariella Marzano, Jake Morris, Liz O’Brien, Amy Stewart and by collaboration with other programmes: Vadims Sarajevs, Andy Peace 20%</p>
<p>Work package 1.1</p>	<p>Behaviour change RQ: How can forestry policy, interventions, campaigns, projects and management encourage sustainable values, attitudes and behaviours?</p>
<p>Work package 1.2</p>	<p>Behaviour change RQ: How will the increased production of biomass from TWF affect public behaviour, attitudes, and attachments to places and landscapes?</p>
<p>Work package 1.3</p>	<p>Behaviour change / ecosystem services RQ1: What are people’s understandings and experiences of the relationship between urban/peri urban forests and health? RQ2: What does existing research on health and the links to TWF tell us about the contribution TWF make to the health of individuals and communities? This will be addressed as a review of existing evidence.</p>
<p>Work package 1.4</p>	<p>Ecosystem services RQ: What are the linkages between ecosystem services (particularly cultural services) and human well-being, and what are the implications for policy and practice? This work package will be delivered in close collaboration with 3.4</p>
<p>Work Area 2 Coordinator Staff involved</p>	<p>Society Bianca Ambrose-Oji Bianca Ambrose-Oji, Norman Dandy, David Edwards, Anna Lawrence,</p>

% of CFS budget	Mariella Marzano, Jake Morris, Liz O'Brien, Amy Stewart and by collaboration with other programmes: Vadims Sarajevs, Darren Moseley, Andy Peace 20%
Work package 2.1	Alternative delivery models RQ: What are the differences in the societal benefits delivered by different models of ownership and management of TWF within different contexts? This research will be delivered in close collaboration with work package 3.2.
Work package 2.2	Ecosystem services: spatial prioritisation RQ: What criteria/weightings can be used in a spatial approach to characterising multi-scale demographic and forest data and to identify the distribution of societal benefits from TWF?
Work package 2.3	Alternative delivery models / Behaviour change RQ: How can data from social media be utilised to inform policy makers and managers about the management and benefits of TWF? Conversely, how do social media shape collective behaviour change? This research will be delivered in close collaboration with work package 1.1.
Work package 2.4	Behaviour change RQ. Engagement. What are the pros and cons of different kinds of engagement to reach particular stakeholders or groups in society in support of different policy and management goals.
Work Package 2.5	Biosecurity Cost Action PERMIT: phytosanitary awareness across stakeholders.
Work Area 3	Governance
Coordinator	Anna Lawrence
Staff involved	Bianca Ambrose-Oji, Norman Dandy, David Edwards, Anna Lawrence, Mariella Marzano, Jake Morris, Liz O'Brien, Amy Stewart, Andy Peace
% of CFS budget	20%
Work package 3.1	Behaviour change RQ: What are the effects of grants and other delivery mechanisms in changing the values, attitudes and behaviour of individuals and organisations to provide a range of differing public benefits? This will build on the Evidence Review conducted in 2010, to focus on evidence gaps including local authorities, other urban stakeholders and community woodlands
Work package 3.2	Alternative delivery models RQ: How do different models of ownership/management (public, private, civil society) of TWF work in relation to different contexts and objectives? RQ: Which business models best support these?
Work package 3.3	Alternative delivery models: landscape partnerships RQ: How can collaboration become most effective across a range of ownership models to achieve adaptive management of wooded landscapes. Scoping in 2011-12; case studies 2012 onwards.

Work package 3.4	Ecosystem services RQ: What are the implications for forestry policy and practice of use of the ecosystem services framework, and how can the approach be operationalised? Scoping and knowledge transfer seminars in 2011-12; further detail to be identified for 2012 onwards.
Work package 3.5	Alternative delivery models RQ: What and how do organisations and their representatives learn from M&E of projects and programmes. Work to be concluded in 2011-12, with lessons outlined for organisational uptake and adaptation.

Work Area 4	Evaluation and appraisal
Coordinator	David Edwards
Staff involved	Bianca Ambrose-Oji, Norman Dandy, David Edwards, Anna Lawrence, Mariella Marzano, Jake Morris, Liz O'Brien, Amy Stewart. Collaboration with other programmes: Vadims Sarajevs, Kieron Doick, Andy Peace
% of CFS budget	15% (this work area receives more external funding)
Work package 4.1	Ecosystem services RQ: What are the factors influencing uptake of decision support systems developed by FC, and what lessons can be learned for DSS development? (continuation of existing study)
Work package 4.2	Alternative delivery models RQ: What are the advantages and disadvantages of different monitoring and evaluation tools and approaches? (a review)
Work package 4.3	Ecosystem services: NorTosia RQ: What role can tools for sustainability impact assessment play in forest landscape planning?
Work package 4.4	Ecosystem services: ForestClim RQ: How can we best involve stakeholders in research to support regional forest planning in the face of climate change?
Work package 4.5	Ecosystem services: Trees4Future RQ: How can research networks be developed that help researchers respond to increasing demands for wood products & services in the context of climate change?

Knowledge transfer: 25% of the budget of each work area is committed to knowledge transfer. This will consist of a report, two page project summaries and webpages for dissemination within and beyond FC. Appropriate academic and popular articles will be prepared from the work package research. Workshops, seminars, training and conferences will include:

- Spatial prioritisation workshop
- Ecosystem services workshop
- M+E seminar
- Community woodlands training course
- Health workshop
- Behaviour change training course

Small and major conferences will be attended to both present research, to network and develop contacts and to inform new ideas on theory and methodology.

6. Please indicate which of the FC’s 6 Climate change priority actions this work fits into

Protect what we already have	<input checked="" type="checkbox"/>	Reduce deforestation	<input type="checkbox"/>
Restore the world’s forest cover	<input checked="" type="checkbox"/>	Use wood for energy	<input checked="" type="checkbox"/>
Replace other materials with wood	<input type="checkbox"/>	Plan to adapt to our changing climate	<input checked="" type="checkbox"/>

7. Comment on how this research will address Country Strategy needs/targets (175 words)

The research programme addresses the following country needs:

The Scottish Forestry Strategy Implementation Plan 2011-2014 outlines indicators of progress on ‘helping to improve the quality of life and well-being of people across Scotland’ by enhancing forestry’s engagement with communities, supporting community ownership, and focusing on access, health, and learning. WIAT, the Central Scotland Green Network, Greening NHS Estate, FEI and Forest School are key mechanisms for engagement, partnerships and delivery.

The new proposed Natural Environment Framework in Wales focuses on managing the environment as a whole. FCW corporate plan 2011-2014 outlines the importance of public involvement and enterprise, recreation and access, wood based skills and learning and urban woods and trees. Key areas include Welsh Government Regeneration Areas, such as the Heads of the Valleys and Western Valleys, promoting and implementing the public involvement and social enterprise framework and partnership working to promote health and well-being.

Emerging policy priorities for FCE include the protection, improvement and expansion of the woodland resource and the range of ecosystem services (including cultural services), to be achieved through a greater emphasis on empowering and enabling individuals, civil society and business to determine the range of benefits they want.

8. Identify and comment on any associated business risk of undertaking/not undertaking the research and how that will be managed

All three countries have significant individual/societal programmes with a focus on well-being/cultural services, monitoring and evaluation, engagement, partnerships and delivery mechanisms. The cultural services (recreation, restoration, education, inspiration etc.) provided by ecosystems such as woodlands are a key part of the political agenda with the publication of the NEA. Phase 2 of the NEA will include a further focus on social and cultural services with DEFRA taking the lead. FR and FC has much to contribute to this in terms of research and opportunities to test approaches using particular case studies. Funding bodies such as NERC and its programmes Living with Environmental Change and Valuing Nature Network provide opportunities for FR interdisciplinary working with a strong focus for social research.

Without relevant evidence, failure to achieve the policy aims outlined above in section 7 would affect the credibility of the FC in each country and its ability to respond to societal change.

Furthermore clear knowledge exchange is needed to avoid the risk that the research produced is not understood or utilised effectively.

9. Research impact (economic, social, or biodiversity)

Who will benefit from this research? Private, public and civil society landowners and managers, publics, stakeholders, forestry policy makers

How will they benefit from this research? Through evaluations; development of criteria/typologies/tools to support decision-making; greater understanding of individual, organisational and societal benefits and the distribution of those benefits under different delivery mechanisms; robust evidence drawing together qualitative and quantitative research; understanding of how to influence TWF values, attitudes and behaviours of different groups in society.

What will be done to ensure that they have the opportunity to benefit from this research? Through consultation, networking, direct involvement of some stakeholders in developing the research, through dissemination and broad communication

Potential for innovation and new markets?

1. Research into organisational decision making will support a shift within towards more adaptive forms of management, and a culture of organisational learning.
2. Research into public and consumer attitudes towards the use of wood products may indirectly support the development of new markets.

10. Communication Strategy

Reports: One report per work package.
2 page summaries for all completed projects.

Seminars/conferences:

- Spatial prioritisation workshop
- Ecosystem services workshop
- M+E seminar
- Community woodlands training course
- Health workshop
- Behaviour change training course

Decision support systems:

Website: (Based on 2 reports per work area) 8 new webpages will be created to include the reports and project summaries from each work area

Peer review papers: three papers per work area

11. Under government survey control procedures, Ministerial approval must be sought before statistical surveys of businesses or local authorities can proceed. Please indicate any intention to carry out a survey.

Yes No

YES: surveys are likely to be required for several work areas, some of which will require ministerial approval. We are aware of this requirement and will take it into account when developing methods for individual work packages.

12. Details of support agreed or to be sought from funding bodies for project
(including in-kind support)

13. Resources (times and fees) requested from the Forestry Commission



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14. Deliverables and associated costs to Forestry Commission

Work Area number	Output	Year 1				Year 2				Year 3				Year 4				Output Unique Identifier	Total Cost (for year 1)
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4		
Work Area 1 Well-being																			
1.1	Report on how forestry policy, interventions and projects encourages/enables sustainable values and behaviour disseminated. (Progress updates in Years 1-3, Final report Year 4)				x					x								x	
1.1	Peer-reviewed paper on results of sustainable values and behaviour change research																		x
1.2	Report on place, landscape and biomass disseminated					x													
1.3	Report on urban/peri urban forest and health relationships disseminated				x														
1.3	Report on review of contribution of TWF to health disseminated				x														
1.4	Report on linkages between cultural services and human well-being disseminated					x													
Work Area 2 Society																			
2	Peer-reviewed paper on social distribution of well-being benefits gained from TWF						x												
2.1	Report on the societal benefits of alternative woodland and forestry delivery models disseminated (Progress updates in Years 1-3, Final report Year 4)				x					x									x
2.1	Peer-reviewed paper characterising the value and range of benefits from different delivery models																		
2.2	Report on methods used to target and demonstrate the spatial distribution of societal benefits from TWF disseminated								x										

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Signed.....Research Provider/HOD
Date.....

Signed.....C&FS Advisor
Date.....



Proposal Approved

CFS

Date 31st August 2011



15. Agreed Changes

Description of change:		
<p>Signed.....Research Provider Date.....</p> <p>Signed.....C&FS Date.....</p>		
<p>Signed.....Research Provider Date.....</p> <p>Signed.....C&FS Date.....</p>		
<p>Signed.....Research Provider Date.....</p> <p>Signed.....C&FS Date.....</p>		

16. Detailed communications plan:
Year 1
Year 2
Year 3
Year 4