

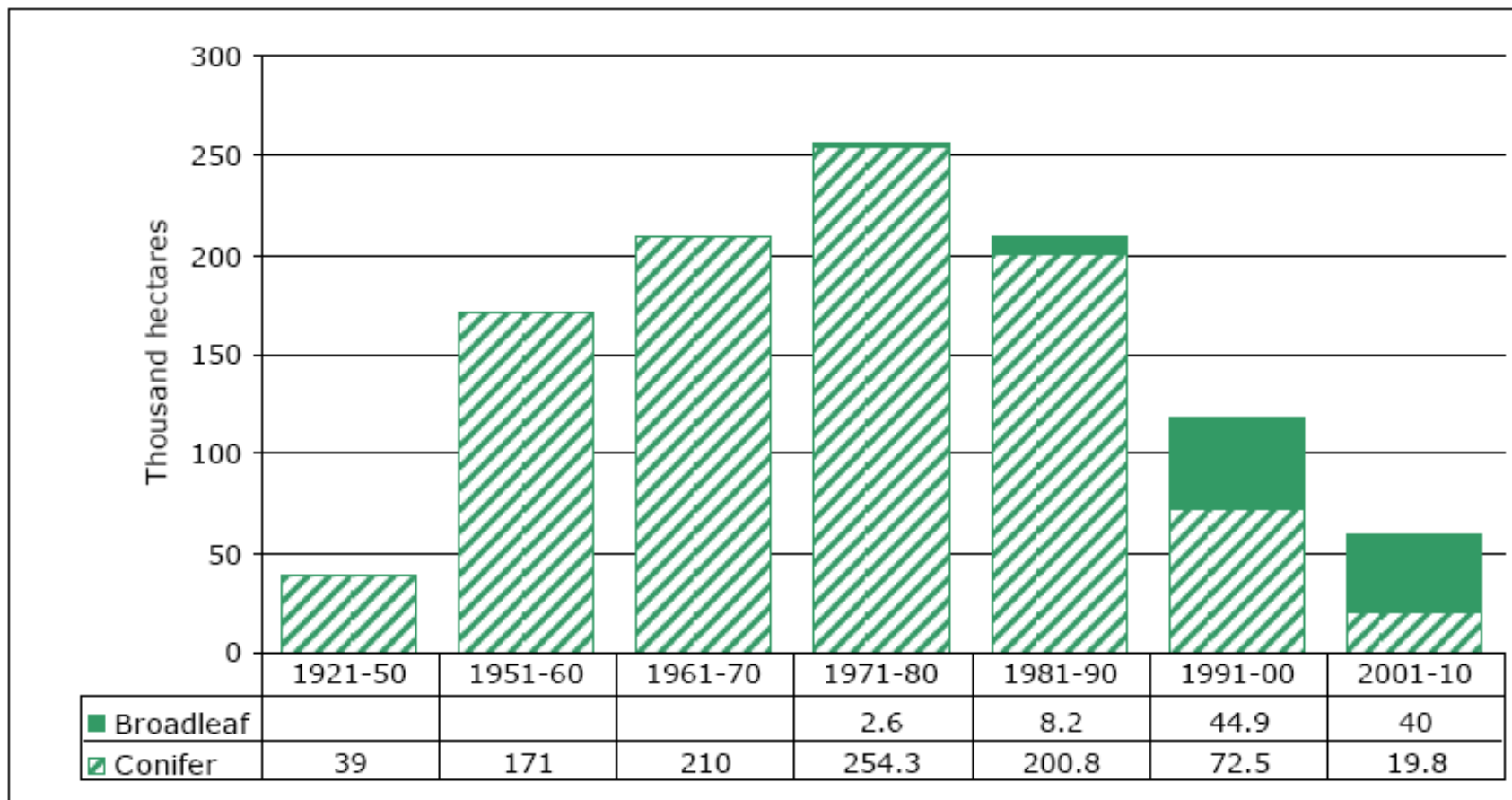
Woodland expansion: cultural, social and economic factors



David Edwards
Social and Economic Research Group, Forest Research

ESCom Scotland Workshop, Edinburgh, 19 January 2016

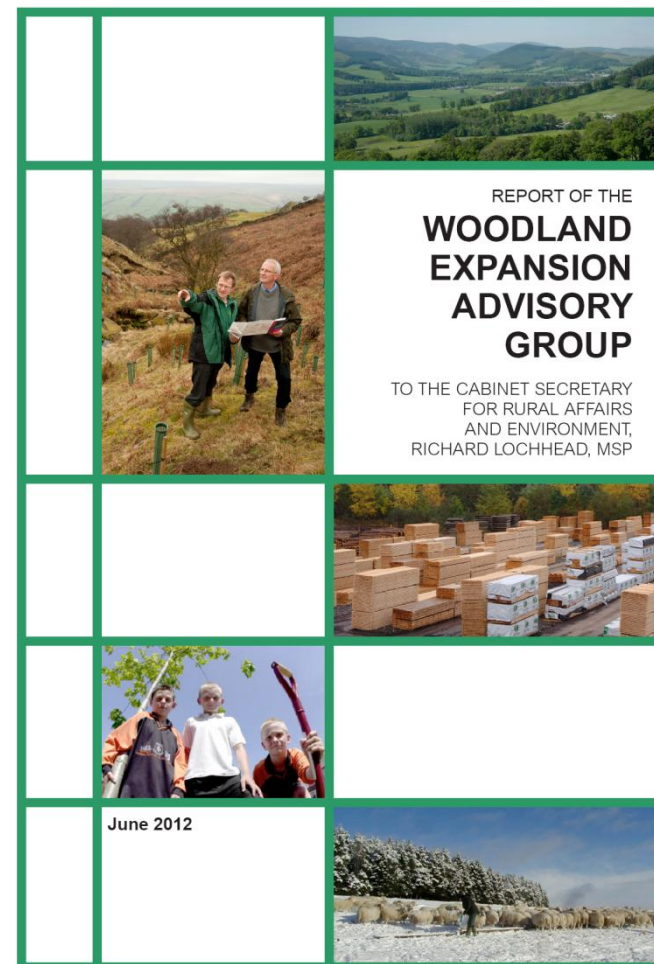
Average levels of woodland expansion in Scotland since 1921



In 2010, 73% of new woodland was planted under the Native Woodland option

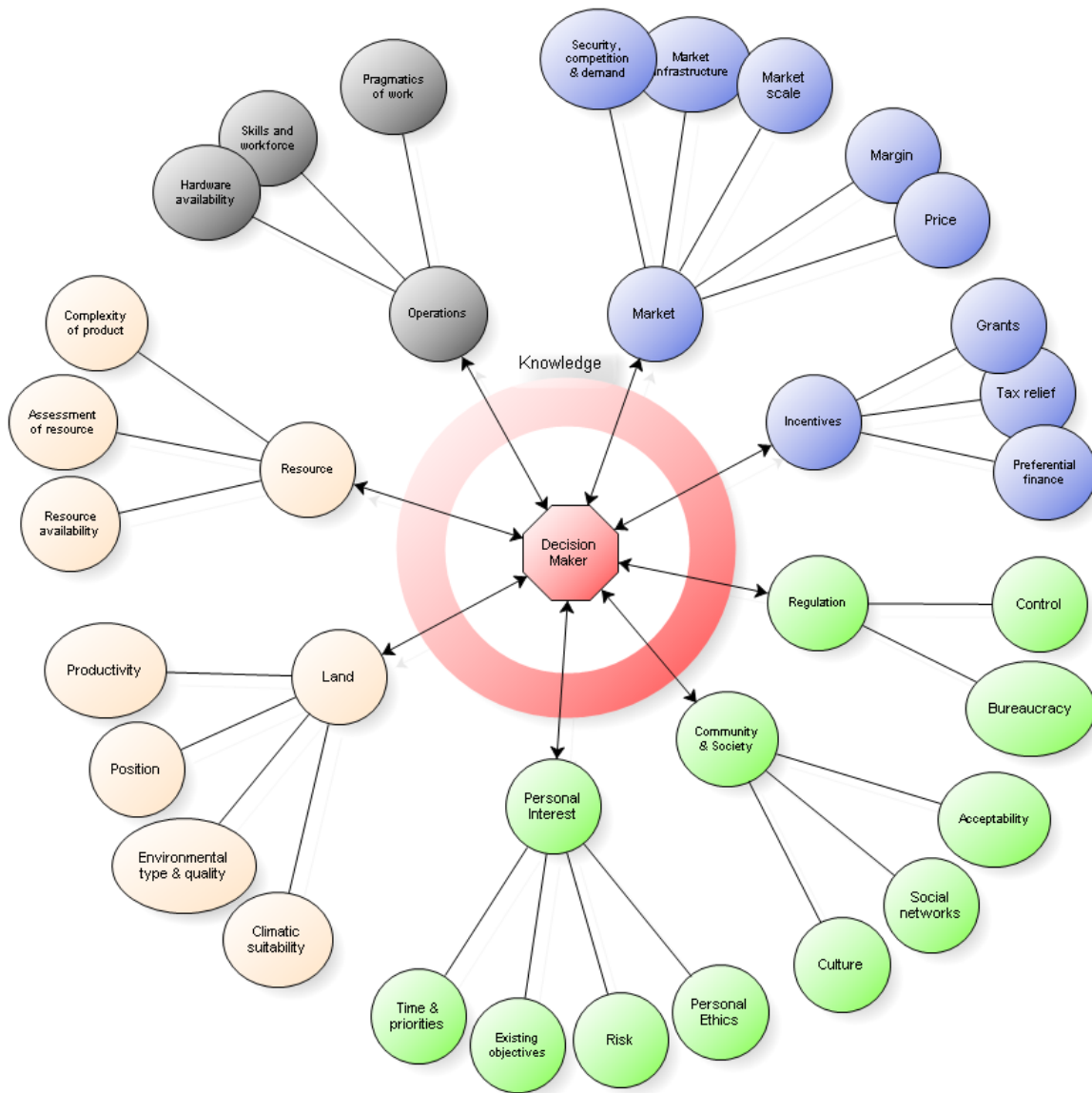
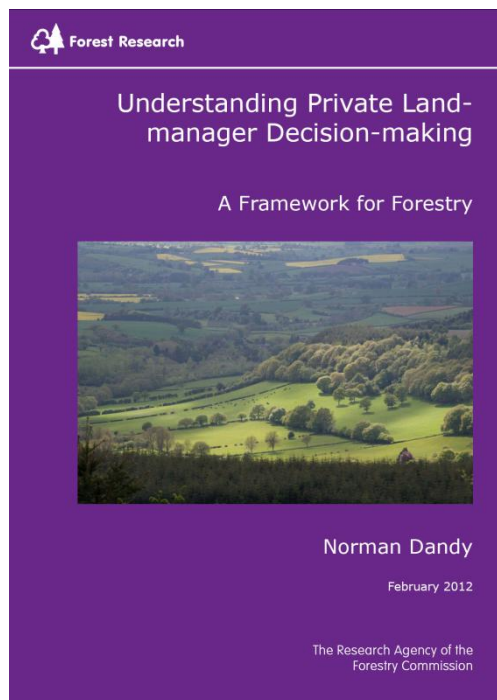
Source: WEAG, 2012

1. Woodland creation target
2. Productive woodlands
3. Types of land for tree planting
4. Sub-regional analysis
5. Regional Forestry Forums
6. CAP reform
7. Grant rates
8. SRDP administration
9. Consultation process
10. Integration
11. Whole farm planting
12. Advice
13. Better policy integration
14. Co-ordination and collaboration
15. Higher education
16. Carbon calculator
17. Woodland Carbon Code
18. Existing woodland
19. Woodland removal
20. Tenant farmers
21. Crofter forestry
22. Community involvement
23. Public involvement
24. Monitoring progress



“100,000 hectares of new woodland by 2022”

Understanding private land manager decision-making: a framework (Dandy 2012)



Influences on land-manager decision-making (Dandy 2012)

- Economic factors
 - Market (price; margin; market scale; infrastructure; security)
 - Incentives (grants; taxation)
- Social factors
 - Regulation (control; bureaucracy)
 - Community and society (culture; acceptability; social networks)
 - Personal interest and values (existing objectives; time and priorities; risk; ethics)
- Physical/environmental factors
 - Land (productivity; position; climatic suitability; environmental quality and type)
 - Resource (resource availability; complexity of product; assessment of resource)
- Operational factors
 - Practicalities of work
 - Skills, workforce and hardware
- Advice, knowledge and decision-making

Market-related factors

- Need to challenge the assumption that economic factors are the primary, or indeed only, influence on land managers - they are not necessarily 'profit maximisers'
- **Market price and profit margin:**
 - The most significant factor?
 - Forestry is seen as uneconomic
 - Potential losses are a greater influence on behaviour than potential gains - perceptions of risk
- **Market scale, infrastructure and security:**
 - Opportunities for a land-manager to supply a product are relative to the wider economy's capacity to supply that same product at a lower cost.
 - A perception that (smaller scale) land-managers cannot compete in the market place.
 - Security: need to have constant demand into the future.
- *"There is enormous disconnect. There is not a marketplace so there is no woodland management, and because there is no woodland management there is not a marketplace."*

Incentives – grants and taxation

- Three perspectives:
 - 1. Crossing economic thresholds** ('tipping points') – reduce costs of production (up-front grants) or increase demand (and hence price) for the product
 - 2. Compensation** - for lost income from more profitable alternative land-uses
 - 3. Managing risk and uncertainty** – 'smoothing the ups and downs'; innovation & diversification.
- Economic incentives alone are unlikely to change land-manager behaviour, and do not often lead to additionality of production.
- *"Subsidization of a few individuals... constitutes a reward for doing what would have been done anyway"*
- *"Restrictive, bureaucratic, overly complex and too small to have a significant impact."*
- *"Grants are often the key to raising owner awareness, a trigger encouraging owners - through publicity - to seek further information and undertake management" (Cater, 1994)*

Regulation

- Forestry, planning, agriculture, heritage & nature conservation, environmental pollution, health & safety, competition, conditions attached to grants and tax relief, land tenure.
- The 'rules' which set the boundaries of decision-making - constraining the range of options.
- **Loss of control**
 - Designated areas – nature conservation and landscape aesthetics
 - Woodland creation is seen as a permanent change in land use (due to policies on felling licences and compensatory planting)
 - Tenant farmers and owners need to negotiate land-use change
 - Grants require registration with public agencies – sense of losing control – some managers actively avoid identification and registration.
- **Bureaucracy**
 - Grant schemes as bureaucratic burdens: "My experience of grants is that the hassle of getting them, particularly on a small scale, just doesn't make it worthwhile."
 - Lack of understanding of regulation is a strong factor driving land-managers to engage with professional advisers and agents

Community and society

- **Culture**

- Values of individual land-managers are strongly affected by prevailing land management cultures. Land managers are more likely to adopt land-uses and make decisions which 'fit' within the culture of their peers, family and friends.
- Farmers: 'productivity', 'tidiness', 'food', 'annual crop cycles', 'hard work', 'improvement'.
- "We have a pressure to farm, if you like... to produce food"
- Woodland owners: *"There's a lot of pressure not to just leave your wood unmanaged isn't there, at least in the sort of circles that we are all moving in. ... I feel it. You're constantly reading articles about management"*

- **Acceptability**

- Decisions are constrained by social norms around acceptable land management practice.
- Changes in landscape, location of infrastructure, use of appropriate crop and tree species, tree felling
- Widespread opposition to tree felling – usually linked to lack of public understanding.
 - *"If we went in and we said we were going to cut down that wood, the uproar that you'd get from the local inhabitants... would go through the roof!"*
 - *The more of us that manage them [woodlands] the more it becomes normal, and it will become less evil to cut down a tree."*
- Changes in social norms can promote land-use change, e.g. fossil fuels versus bioenergy.

Social networks

- Land managers have many, diverse social networks - formal (membership of organisations) and informal (friends, families, community)
- Profound effect on decision making including land use change - routes through which knowledge, advice, ideas, innovations and culture reach land-managers
- Low uptake of grants – lack of membership of traditional information networks.
- Families – can have a major impact on farming decisions: *"it is often another member of the family – a wife or son – who triggers an interest in woodland management rather than the full-time farmer"* (Cater 1994)
- Conversely – inter-generational connections can act as a barrier to innovation: planting trees can be seen as a 'break from tradition'.
- Direct engagement with research organisations – e.g. university sets up trials or demonstrations on private land.
- *"I don't see my neighbours... there is no such thing as a rural community anymore"*.

Personal interests and values

- Land uses are adopted if they can deliver land-managers existing objectives - perhaps the strongest and most obvious influence upon decisions – yet its importance is often under-estimated.
- Important to recognise the detailed context – managers usually have multiple objectives – and these are not necessarily mutually-exclusive.
- Personal ethics: relationship between people and land – related to cultural norms.

Advice, knowledge and evidence

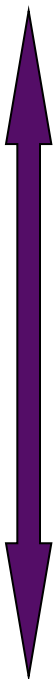
- The advice land-managers receive (or don't receive) has been repeatedly shown to influence decisions, objectives and outcomes.
- Lack of knowledge forms a barrier to making appropriate 'informed' decisions.
- Rational choice theory:
 - Problems with a 'knowledge deficit' model of behaviour and decision-making.
 - Knowledge is relational and contextual – it acts as a filter for all the other factors
- An individual's land-management culture will impact on which information is used, which knowledge is held and acknowledged, and which sources and forms of information are trusted.

Overview of factors

1. Economic incentives are just one amongst many influences. They can help land managers realise existing or potential objectives, but they rarely create new objectives.
2. Land managers are not 'blank canvasses' waiting passively to receive information to show them the 'best' way forward. They can be considered to be on land management trajectories, which give considerable momentum and generate resistance to change.
3. Recognise (and work with) key opportunities for change: inheritance and succession; crisis or serious threats to the realisation of existing objectives, or the spread of innovation.
4. Establish systematic and targeted methods for knowledge exchange, particularly via channels characterised by high levels of trust such as interpersonal communications and existing social networks.

Land owner/manager types

Cash-poor



Cash-rich

1. Farmers

- A diverse group; often relatively cash-poor
- Responsive to woodland creation grants and short-term income opportunities (woodfuel, amenity)
- Future timber revenues often little incentive for planting

2. Estate managers/owners

- Privately owned estates
- Probably greater access to capital to subsidise forestry
- Longer-term objectives, e.g. future timber and non-market benefits

3. Inward investors

- Cash rich institutional investors (e.g. pension funds and multinationals)
- Purchase whole estates; plant conifers solely to maximise long-term profits
- Grants are not as important in decision making
- Includes the sub-set 'Socially responsible investors'

	Pragmatic Planters	Willing Woodland Owners	Casual Farmers	Business-Oriented Farmers	Farmers First
Level of woodland management	High	Highest	Low, but moderate for wildlife conservation	Moderate, but high for commercial game shooting	Lowest
Motives for woodland management	Timber; fuel for personal use; shelter; carbon sequestration	Fuel for personal use; personal recreation; benefit to wildlife; use of unproductive land; diversifying landholding	Habitat and landscape enhancement, but few benefits perceived	Income; profit; a way of securing public funding	Income; shelter
Obstacles to woodland creation	Low grant rates; impact on other grant payments; regulation	Few obstacles	Access to contractors; lack of spare land	All obstacles rated highly	Most obstacles rated highly
Receptiveness to incentives	Want to make money out of woodland; all incentives rated highly	Most incentives rated highly, but least responsive to increased woodfuel, timber and carbon prices	Least motivated by income; not motivated by grant payments. Want advice, especially on pest control	Higher grant payments, higher prices for timber and advice all rated highly.	Would not consider planting even if money was to be made; no incentives rated highly

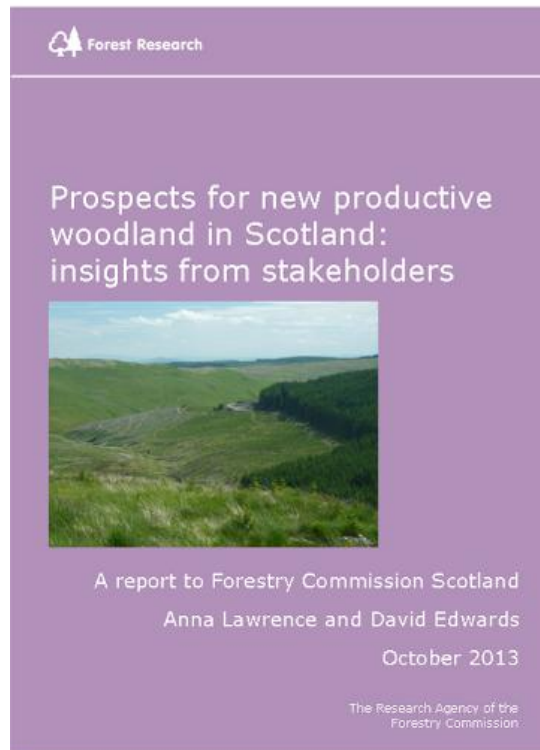
Five farmer segments for woodland creation in England

- **Pragmatic Planters (17%)** – farmers who undertake multiple activities and are sympathetic to conservation. Farming is part of their family identity, and they want to pass on a viable business.
- **Willing Woodland Owners (24%)** – farmers who believe woodlands benefit society, and do not believe the quality of their land is too high for woodland creation. They are most willing to sacrifice profit for environmental benefits.
- **Casual Farmers (23%)** – farming is not their dominant activity and income is not their main driver. Many have lowland grazing and emphasise habitat and environmental preservation.
- **Business-oriented Farmers (20%)** – farmers who believe farming is all about profit, and that the quality of their land is too high for woodland creation. They have least sympathy with environmental issues and little interest in woodland.
- **Farmers First (17%)** – farmers with a strong belief that farming, including its environmental benefits, is superior to woodlands, which have little benefit to society. They believe that the government should support the rural economy, not woodland creation.

		
		<p>REPORT OF THE WOODLAND EXPANSION ADVISORY GROUP</p> <p>TO THE CABINET SECRETARY FOR RURAL AFFAIRS AND ENVIRONMENT, RICHARD LOCHHEAD, MSP</p>
		
		
June 2012		

Recommendation 2: Productive woodlands.

Forestry Commission Scotland should work with the wood processing industry to encourage woodland owners and managers to consider opportunities for producing timber and/or wood fuel when creating new woodlands of all types. Measures to achieve this will include grants under the next SRDP, advice and facilitation.



Forest Research

Prospects for new productive woodland in Scotland: insights from stakeholders

A report to Forestry Commission Scotland
 Anna Lawrence and David Edwards
 October 2013

The Research Agency of the Forestry Commission

Four factors influencing woodland creation decision-making:

- 1. Grants** (and other financial incentives)
- 2. Communication** (advice, information, knowledge exchange, extension)
- 3. Regulation** (the process for approving planting and grant applications)
- 4. Political support** (championing and leadership)



Trees integrated into farmland



Upland whole farm planting

The process is risky, expensive and time-consuming

- *"You can look at indicative forestry strategies, you can look at constraints plans, you can do all that sort of stuff, and something will come out of left field that you didn't even know about, to scupper it or to change it so significantly that suddenly it's not commercial anymore, you've ended up with 40% broadleaf..."*
- *"If you want an easy ride, your best option is to go in with native woodland."*
- *"What is needed is a reversing of the burden of proof."*
- *"You can't short-cut the process." (FCS conservancy officer)*
- *"... my default position is going to be, if you can't provide me with sufficient information about this site, I'm going to have to err on the side of caution and call for a full EIA on the site because I have to take the precautionary principle..." (FCS conservancy officer)*

The process is 'stacked against production'

- *"What really depresses me as a forester is that nobody has anything positive to say about any of these schemes. We're trying to plant trees and create forests for Gods sake, we're not putting in industrial waste unit plans or something... I have never seen, in any pre-scoping meeting or application, anything positive from any of the consultees, I just don't, it doesn't happen."*
- *"We've gone to a situation where everybody's got to be totally happy... that situation is virtually an agenda for nothing to happen."*
- The consultation process is "adversarial... a viewing of extremes".
- *"The way public consultations are analysed is to count up the number of voices for and against and the side with the most voices wins. The views are only weighted in the sense that **the loudest voice gets heard. It makes no difference whether those voices are informed in any way.**"*

Contested valuations of ecosystem services

- *"The decision can come down to whether one or two hen harriers provided as much public benefit as the forest that could be established there. This is the classic business of the balance of ecosystem services". (Forestry agent)*
- *"There's massive areas of Ayrshire where they're just bald rolling hills that apparently are all now regarded as Special Protection Areas for eagles, because it might be eagle territory, so planting out there is... why go there? It's just a headache. So people don't want to try, because you won't get approval. You'll have the RSPB saying this might be eagle country." (Forest investment agent)*
- *"The impact [of productive conifers] is at local level but the benefits are at a national level, whereas a native woodland... the benefits and impacts are broadly in the same location, so... it makes it more palatable." (FCS conservancy officer)*

Political support and leadership

- *"Ministers are not prepared to stand up and back their own targets and say, 'No, we have decided there is to be 25% woodland cover, 60% of the new woods are to be productive, therefore this is going to be productive'."* (Forestry agent)
- *"We don't have targets for black face sheep or any other crop; we don't have targets for hen harriers either."* (Forestry agent)
- *"There is not enough banging on tables by FC".* (Forestry agent)
- *"We have a terribly sensitive industry which has been criticised for 30 years."* (Forestry agent)
- *"We need to send out the strong positive message that forestry produces a green sustainable product... forestry has the best story to tell, so why isn't it being told?"* (Forestry agent)
- *"They're a post-box."* (Forestry investment agent)

APPENDIX IIIa (Updates Appendix III of SBWS 2005) OPPORTUNITIES FOR WOODLAND EXPANSION

MAP 6 UPLAND / UPLAND FRINGE FORESTS AND WOODLANDS

EXPLANATORY NOTE:
The categories have been created on this map using the following GIS parameters:

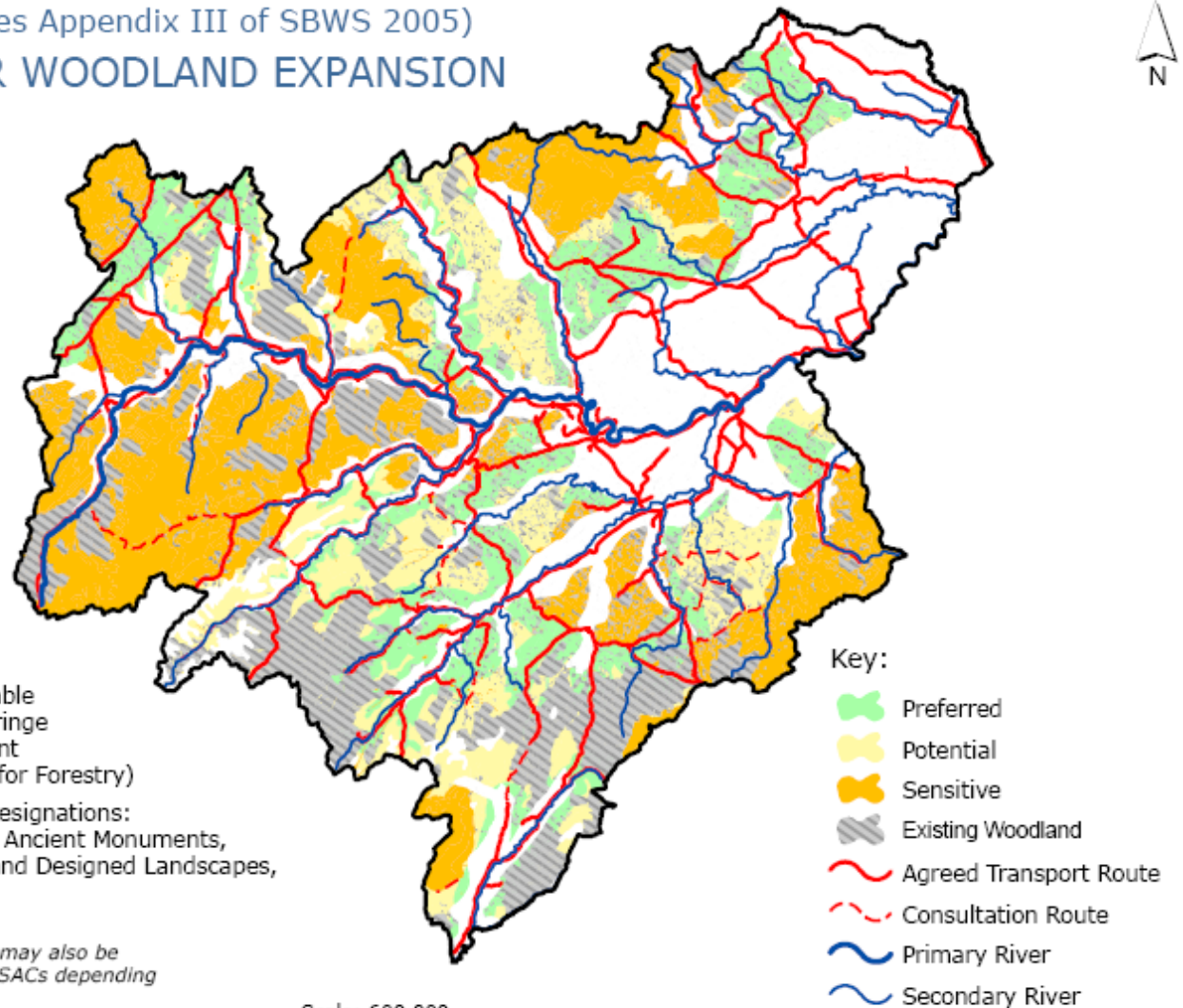
Preferred - includes all land classified Upland and Upland Fringe in the Borders Landscape Assessment that is also classified as F5 or better in Land Capability for Forestry classification and that lies within 2km of an agreed timber transport route.

Potential - includes all other plantable land classified Upland and Upland Fringe in the Borders Landscape Assessment (i.e. F6 or better in Land Capability for Forestry)

Sensitive - includes the following designations: Designated wildlife sites, Scheduled Ancient Monuments, Special Landscape Areas, Gardens and Designed Landscapes, National Scenic Areas

* *Appropriate native woodland planting may also be preferred or potential within SSSIs and SACs depending on the nature of the sensitivity.*

* *NB: The River Tweed and its main tributaries are a designated SSSI.*



Scale: 600,000

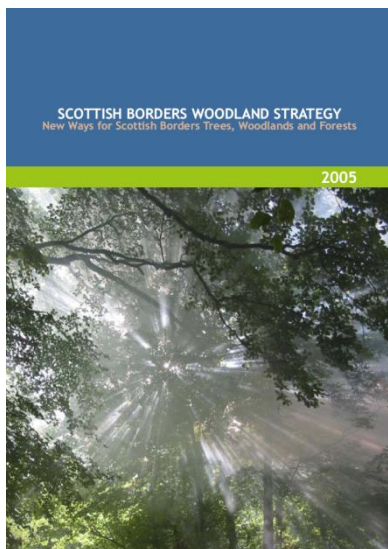
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Forestry and Woodland Strategies (FWS)

- *"The problem with that approach is that, whilst it works to some degree, in that it basically tells you where you could plant trees, what it doesn't really explore is: 'but should you plant trees in those areas?'. That is the question that is left unanswered."* (FCS official)

Councillor:

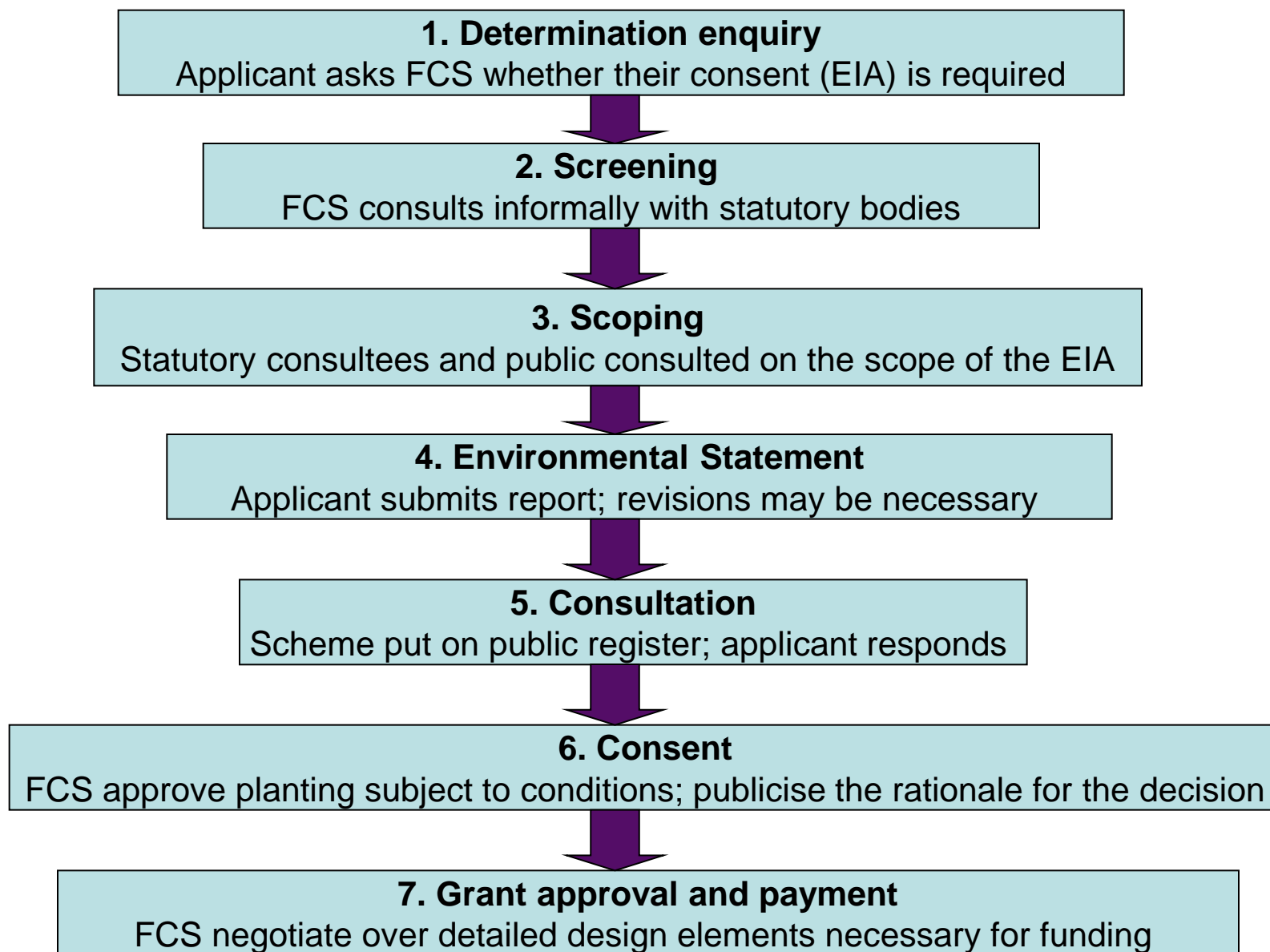
- *"The advice note does not contain adequate safeguards to prevent and control the impacts of large-scale conifer planting..."*



SBC Landscape Officer:

- *"... the advice note (2012) does in fact provide a very robust and clearly defined set of criteria against which the potential adverse effects of large-scale conifer planting can be judged."*
- *"Importantly the new advice note permits the council to take into consideration the **economic and social implications** ..."*

Southern Reporter, 28 April 2013



1. Grants and incentives

- Revise the levels of grants for productive and native schemes
- Develop a grant system that responds to specific circumstances, but is also easy to administer
- Address the bureaucratic problems with SRDP, especially relating to prompt payment of grants
- Revise the Woodland Carbon Code so that carbon finance supports commercial planting

2. The approvals process

- Establish agreed timeframes for each step in the process, so long as this does not lead to unnecessary EIA determinations
- Give FCS greater power to support schemes in 'preferred' areas through improved evidence, planning and guidance

3. Advisory and outreach systems

- Invest in knowledge exchange
- Learn from success
- Review the role of FCS conservancy staff to allow them to advise and guide applications
- Develop models based on 'trusted intermediaries'

4. Leadership and policy

- Provide political leadership so that there is more of a presumption for, rather than against, productive woodland creation
- Support integrated land management
- Bolster the timber industry and encourage positive perceptions of productive woodland

Types of knowledge exchange

(adapted from Nutley, 2012)

From:

'Knowledge Transfer' →

To:

'Knowledge Exchange'
'Knowledge Interaction'
'Knowledge Mobilisation'



'Bridging' →

'Dialogue'