Forest Policy Group

Value from supporting local forestry businesses – a scoping study

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The Forest Policy Group (FPG) seeks to further the development of sustainable forestry in Scotland, by contributing informed inputs to the policy debate. Its membership is drawn from woodland organisations, forestry and land use professionals and timber users, who subscribe to a view of forestry in which:

- *environmental and social issues are treated as core parts of forestry on an equal footing with economic interests; and*
- *diversity is actively fostered – diversity of tree species and woodland types, woodland tenure, management approaches, timber production and processing, and wider economic opportunities.*

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Executive summary

Context and need

1. The contributions that the forest sector makes to the Scottish economy are large and receive significant attention. However one sub-sector is less well documented. Across Scotland, dozens of new initiatives are growing into a dynamic sector: local small businesses and community initiatives, aiming to own, manage and use woodlands and their produce. The Forest Policy Group organised a conference in Birnam on 11 November 2016 to hear directly from the people who are involved and making these initiatives happen. The case studies presented there, showed that locally controlled forestry can deliver meaningful economic, social and ecological value from woodlands, often creating and enhancing such values where they did not exist under previous arrangements.
2. This sector is still small in financial terms, but it is growing, and has large positive local impacts, especially in remote rural locations where there is often little alternative occupation or opportunity for business development.
3. Some of these small scale enterprises will become the medium and larger scale enterprises of the future. Given government aspirations to grow the sector, the development of these enterprises is especially significant. These businesses can be good examples of sustainable or "green" businesses, delivering against economic, social and environmental objectives. As such they are of wider interest to both government and industry.
4. However the value and potential of this sector as a whole, has not been explored and documented.
5. This report is a first step towards assessing the evidence available and lacking. It aims to:
    a. provide a preliminary overview of the sector and data sources;
    b. summarise lessons learnt from existing evidence;
    c. identify knowledge gaps related to value of the local business sector.

Approach to gathering evidence

6. The sector does not have fixed boundaries, so we used a pragmatic definition which includes woodlands owned and controlled by people who live nearby, and small-scale owner-managed woodlands; micro- and small-scale business and social enterprises extracting produce from the woods or using them as a locus for their activities, and forestry suppliers and contractors operating at small and local scale. There are many examples which sit on the fringes of this definition. We offer a diagrammatic approach to illustrates the intersection of 'local' and 'small scale'.
7. To assess the available evidence we analyse the sector by stakeholder, type and quality of evidence.

Findings

8. Our first question was: ***What do we know about the numbers of people involved in the sector?*** We identified seven main stakeholder types: growers and owners; timber processors; timber manufacturers; non-wood forest product producers; businesses using woodland location; forestry suppliers; woodland contractors. We identify organisations and information sources listing the members (or numbers of members) of each group, and summarise this in Table 1. Most membership information is available for owners, timber processors and timber manufacturers, but even for these categories information is incomplete. Information relating to privately owned woodland businesses (including farm woodlands), very small scale timber manufacturers in the craft sectors (such as wood turners), non-wood forest product (NWFP) producers, business using woodland settings, and locally operating forest suppliers and contractors, is less easily identified.
9. Our second question was: ***What do we know about the numbers and types of businesses in the sector?*** This information is not comprehensive; much of what was identified was often collected for one-off surveys and is out-of-date. Analogous information is available for the whole 'small business' sector and could be used as a model for the small-local forestry sector. Good national-scale information exists from the Federation of Small Businesses and Small Business Survey

Scotland; and the indices used in these surveys may be worth considering for forestry businesses. The most recent whole forest industry survey in Britain shows forestry businesses are predominantly small and medium-sized; with over half being sole traders (largely self-employed); a further 20% are family- based partnerships; and nearly 60% are home-based. Local/small forest businesses use a wide variety of business types and models, and social/community enterprises are well represented.

10. Our third question was: ***What do we know about the motivations of woodland and business owners?*** There is a lack of research into the processes of innovation and business development, particularly in relation to new ownership in Scottish (and British) forestry. Experiences in continental Europe have been researched more profoundly but in Scotland, there is a need to build on the case studies from the FPG Birnam conference, and from a few other EU-funded projects.
11. Our fourth question was: ***What do we know about the impact of small local forestry?*** Very few of the organisations or businesses listed in Table 1 provide information on impact. Project evaluations rarely reach conclusions about impact, focusing instead on outputs. Specific studies of both regional impacts of forestry and social benefits looked almost exclusively at the contribution of conifer forests and conventional forestry businesses and there are no studies giving useful information on the local/small sector. Case studies prepared for the FPG conference provide some useful qualitative insights into impacts. In the community forestry sector, there is good information on the economic value of community woodlands, but even there, evaluations focus predominantly on outputs (e.g. trees planted, meetings attended etc.) rather than impacts.
12. Our fifth question was: ***What do we know support to the sector (or to individual small businesses)?*** The two main strands of support identified were information and advice on marketing, finance, and employment from Business Gateway (supported by Scottish Enterprise), and grants, technical and promotional support to some relevant businesses, plus financial and other support to the community woodland sector, from Forestry Commission Scotland. Scottish Land Fund (HIE and BIG lottery Fund) supports the acquisition of land by community groups. A few specific evaluations provided detail on the effectiveness of past programmes. FCS support is welcomed, and often crucial to the development of local/small woodland businesses. There is only very limited research on the priorities for support as seen by small businesses themselves.

Conclusions and recommendations

13. This scoping study shows there is evidence that the management of small woodlands, businesses and communities can contribute to the environment and the social fabric and economy locally. The amount of evidence available varies and tends to be patchy. More detailed research is required to obtain a better understanding of their contributions and the contributions that government funding has made to developing and supporting these activities.
14. More specifically, using our framework for assessing the quantity and quality of the evidence, we concluded that:
    a. evidence on **owners and their motivations** is very good and recent, at international level, but suffers from incomplete land registration in Scotland so that many owners are unidentified; overall, the study of small woodland-owner businesses in Scotland is constrained by incomplete knowledge on forest land ownership;
    b. evidence on **businesses** in the small/local sector is dated, patchy but can make some inferences from studies of the whole forestry sector;
    c. evidence on **use and consumption of forest products from the small / local sector** is recent but sparse;
    d. evidence on **government incentives** and their effectiveness is surprisingly poor (out-of-date and sparse); and
    e. evidence on **impact on employment and well-being** is highly selective, with some cases well documented but many others unknown.
15. Better knowledge is needed, particularly on the number of businesses, turnover, employment and outputs; factors support or constraining start-up and successful development; benefits

(economic, social, environmental) to local communities; effectiveness of government support to local/small businesses.

16. To promote and support the small/local sector, there is a need to identify the needs of stakeholders, building on the approaches pioneered by FCS working with ASHS and CWA; and to develop the identity of the sector by supporting representative organisations, increasing awareness of commonalities of interest with other subsectors, and exchanging information and expertise among sub-sectors.

1 Introduction

1.1 Objectives

This scoping study describes the sector of forestry activity which is locally-based, locally-organised, and typically small-scale. It aims to assess the extent of knowledge and the quality and usefulness of evidence, in order to understand the sector's value and how best to support it. This study is a preliminary evaluation of the sector in order to scope a longer term process to improve the knowledge base and priorities for support.

1.2 Rationale and approach

Across Scotland, dozens of initiatives have developed into a dynamic sector: local small and medium sized businesses and community initiatives which own, manage and use woodlands and their produce. This sector encompasses: locally based woodland owners (mainly community and private)[1]; local enterprises that either use timber or other woodland produce; businesses that locate their activities in local woodlands; and the suppliers and contractors that contribute to management of local/small woodlands.

The study brings together two elements that distinguish forestry businesses in this sector:

- Local control - with control, activity and benefits occurring locally.
- Small-scale – most forestry businesses of this type are micro-scale and woodlands are small (though land holdings in the case of community woodlands can be larger).

A conference organised by the Forest Policy Group in Birnam on 11 November 2016 shared experiences and evidence, and identified the need for a more comprehensive assessment of the sector. The FPG work was the first attempt to bring together the two complementary aspects of this sector, that of local control and small-scale business, and to explicitly look at evidence of outcomes. It highlighted the wealth of experience, and qualitative evidence available through that experience, but also underlined the challenges in providing quantitative evidence of the sector in Scotland.

Some of these small scale enterprises will become the medium and larger scale enterprises of the future. Given government aspirations to grow the sector, the development of these enterprises is especially significant. These businesses can be good examples of sustainable or "green" businesses, delivering against economic, social and environmental objectives. As such they are of wider interest to both government and industry. The developing interest in the local/small forestry sector takes place in the context of increasing global focus on 'conscious capitalism' which promotes business as good and ethical (Mackey and Sisodia, 2014); the 'green economy' which emphasises sustainability as well as inclusivity and fairness of business (UNEP, 2011); and the artisan economy which predicts economic transformation based on 'small and personal businesses' (Small Business Trends, 2008). This should be set against global concerns about privatisation of forest land, and increasing abstraction of ownership by absentee investors (e.g. Bliss et al., 2010).

There is clearly potential for this growing sector to help to realise the Scottish Government's aspirations for economic development, health and education, community empowerment, land reform, land use and forestry, and conservation.

Forestry Commission Scotland has invested during the last 20 years in supporting aspects of small-local forestry sector, including farm forestry, small scale harvesting, the small sawmill sector, Furniture Makers association, and local fuelwood suppliers. FCS has also successfully supported

[1] A small number are tenanted

aspects of locally-controlled forestry activity via the community woodlands sector and more recently the Scottish Woodlots Association.

There is now a need for policy makers to understand the sector better, and this raises some questions:

- How can we define and characterise the sector?
- What are the drivers, enablers and constraints to expansion?
- What is the scale, value and impact of government support ?
- How can government improve its connections with the sector and the value of its support?

With this in mind, the objectives of this scoping study are to assess the existing evidence and its capacity to answer these questions. Specifically the study aims to:

1. Network with local/small businesses and support organisations in the local/small forestry sector to collate as much existing information as possible on the scope and scale of the sector.
2. Develop an analytical framework to provide preliminary evidence of the financial value of the sector, the scale of grants and other incentives.
3. Summarise lessons learnt from existing evidence, identify knowledge gaps and recommend information needs for further development.

The study uses a standard technique known as Rapid Evidence Review[2] developed for use in public policy research and evaluation. This provides a more structured and rigorous search and quality assessment of the evidence than a literature review, but is not as exhaustive as a systematic review. Details on the network of contacts developed are given in Appendix 1, and on the on-line bibliographic searches, in Appendix 2.

2 What is the small/local forestry sector?

2.1 Defining the sector

For the purposes of this evidence review, we adopt a pragmatic definition. Building on a definition of the forestry sector as 'growers, primary timber processors, first stage suppliers closely associated with forestry and other businesses using primary production from forests' (CJC Consulting, 2005), the components of the local sector include:

1. Woodlands that are locally owned and controlled i.e. by people living in the vicinity of the woodlands as individuals, farming families, groups or communities. These woodland ownerships are typically small, but will extend to several hundred hectares in the case of some larger community woods.
2. Other small woodlands managed by their owners (rather than management companies), including a small but growing number of "hobby" or semi-professional woodland owners, choosing to own a woodland as a rural locus.
3. Small and micro-scale forestry businesses that use the local woodland resource for processing (e.g. small sawmills), foraging (e.g. mushroom collectors) and value-adding (e.g. furniture makers, basket makers).
4. Socially-orientated enterprises that use local woodlands as a locus for their activities (e.g. tourism, mental health, training)
5. Forestry suppliers (e.g. local tree nurseries) that operate at local scale and forestry contractors involved in the management small, local and community woods.

[2] https://www.gov.uk/government/collections/rapid-evidence-assessments

This loosely defined sector is characterised by:

- **Local control**: decisions made about the businesses and the woodlands are made by owners embedded in the community, rather than control being vested elsewhere, which has several positive effects in relation to rural development and community empowerment.
- **Local benefit**: for local communities i.e. employment, economic activity, money circulating in the local economy, capacity building, and responsiveness to local needs.
- **Local use**: based on using a widest range of local woodland resources. Many of these enterprises use minority parts of the resource that conventional forestry industry has difficulty engaging with, notably broadleaved/native trees. Collectively these enterprises make use the entire of spectrum of woodland resources from woodland mushrooms and willow twigs to conifer sawlogs.

2.2 Some boundary issues

Neither "local" nor "small" can be precisely defined in this context, so this is a broad-brush definition. Some variations which are less clear-cut are listed here.

1. Some types of enterprise are clearly and consistently local/small (e.g. small hardwood sawmills), and an obvious contrast exists in size and/or locus of control compared with most of their larger counterparts (in this case timber processing industries). Other types of enterprises are on a continuum of localness and scale – for example both woodland advice and forestry contracting are provided by businesses from the very smallest (sole-traders), through small regional firms, to national scale management companies.
2. 'Local' indicates that <u>control</u> and the <u>main activity</u> of the business are located mainly within the local community or local area, rather than extending across a region. However, if sales of products are involved, these will typically extend more widely. 'Small' businesses refers to those defined by the Small Business Survey (SBS) (Office of the Chief Economic Advisor, 2015) as 'micro-businesses' with 1- 9 employees, and 'small' with 10+ employees. Not all the types of business activity undertaken by businesses in table 1 will always be strictly locally focussed; sometimes local/small businesses collaborate on regional or national scale projects with partners from the conventional forestry sector. Indeed in some cases such collaboration is an important source of income.
3. Small woodlands can also constitute part of the local/small businesses. Small woodlands would generally fall into the <50 hectare range, although community woodlands can be larger (up to 800 ha of woodland and many thousands of hectares of land); though community woodlands as *businesses* are typically small.
4. Forestry estates vary very widely in terms of their locus of control, spanning a huge range from remote international investors, to families that have been locally resident for generations. Whilst their land holdings are large, their business sizes are typically smaller, varying from micro to medium scale. While traditional owner-occupied estates share several of the aspects of local/small businesses outlined above, they are ruled out from this study because of their large landholdings and because they are usually well-embedded in conventional large-scale forestry structures.
5. A few larger timber-using industries enterprises, which are also ruled out from this study in terms of size, sometime retain some elements of local control, for example those that remain controlled by a small number of mainly family shareholders.
6. Hunting/sporting is a widespread commercial use of woodlands (deer stalking, driven bird shoots or walk-up shooting). Most of this activity is organised as part of larger estate businesses and is not covered in this report; but some shoots, organised locally would qualify as local/small businesses.
7. Forestry contractors are an important part of the local/small sector, with a long history and important experience of operating at this scale. Most are locally-based and small businesses, with only a few that are regionally organised and larger scale. Some contractors have specialised in

working in small woods (e.g. small scale harvesting contractors and horse loggers) and these are of particular interest in relation to this study. However most contractors work servicing in the conventional larger scale forestry sector, and so (arguably) have less commonality of interest with other parts of the local/small sector.

2.3 A graphic representation of the sector

The ways in which the different local and small businesses compare with the more conventional or international sector, are represented graphically in Figure 1. The focus of interest for this scoping study, lies with the groups highlighted in green.

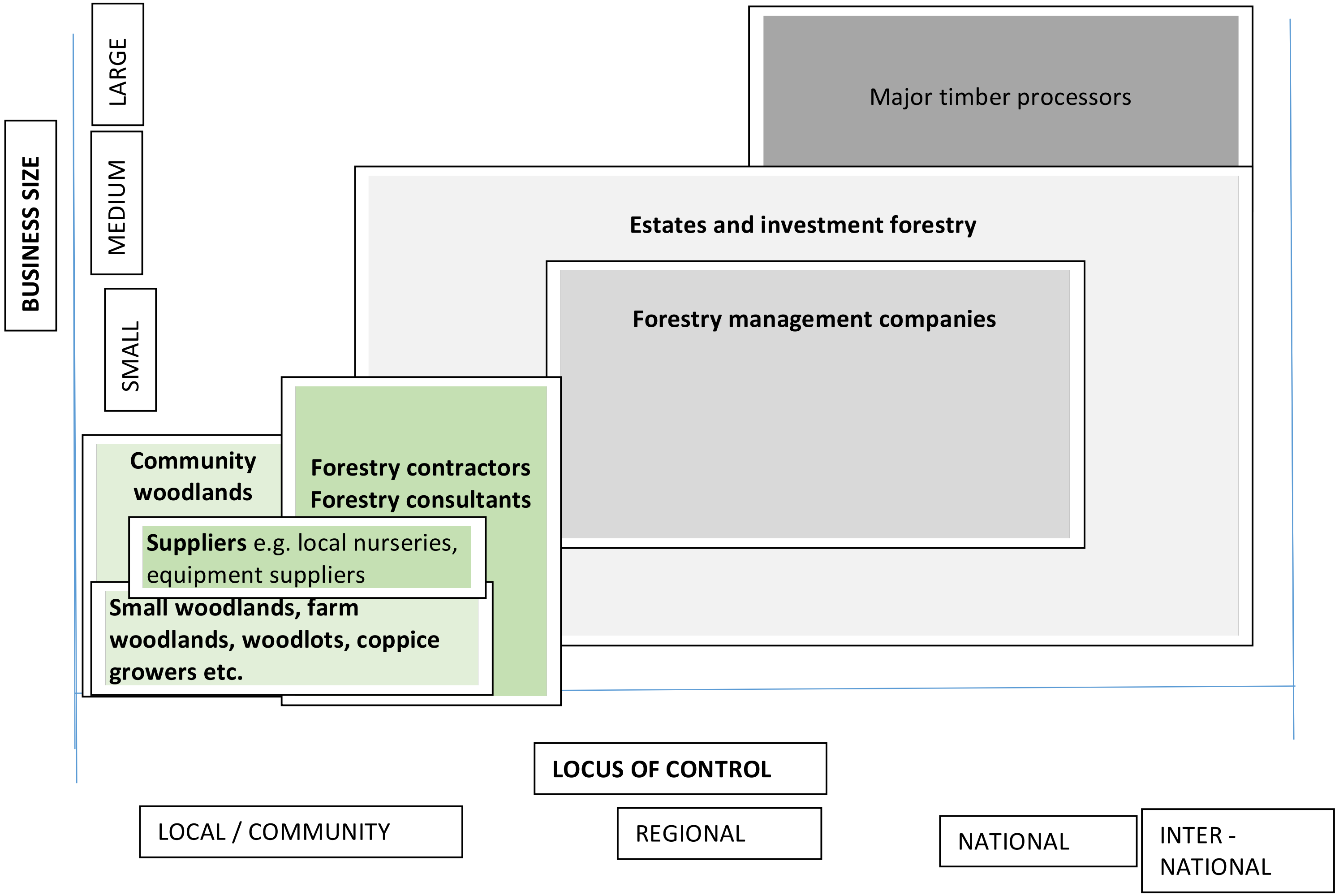

Figure 1a A schema showing the business types considered in this report (green) in terms of their locus of control and business size – woodland related

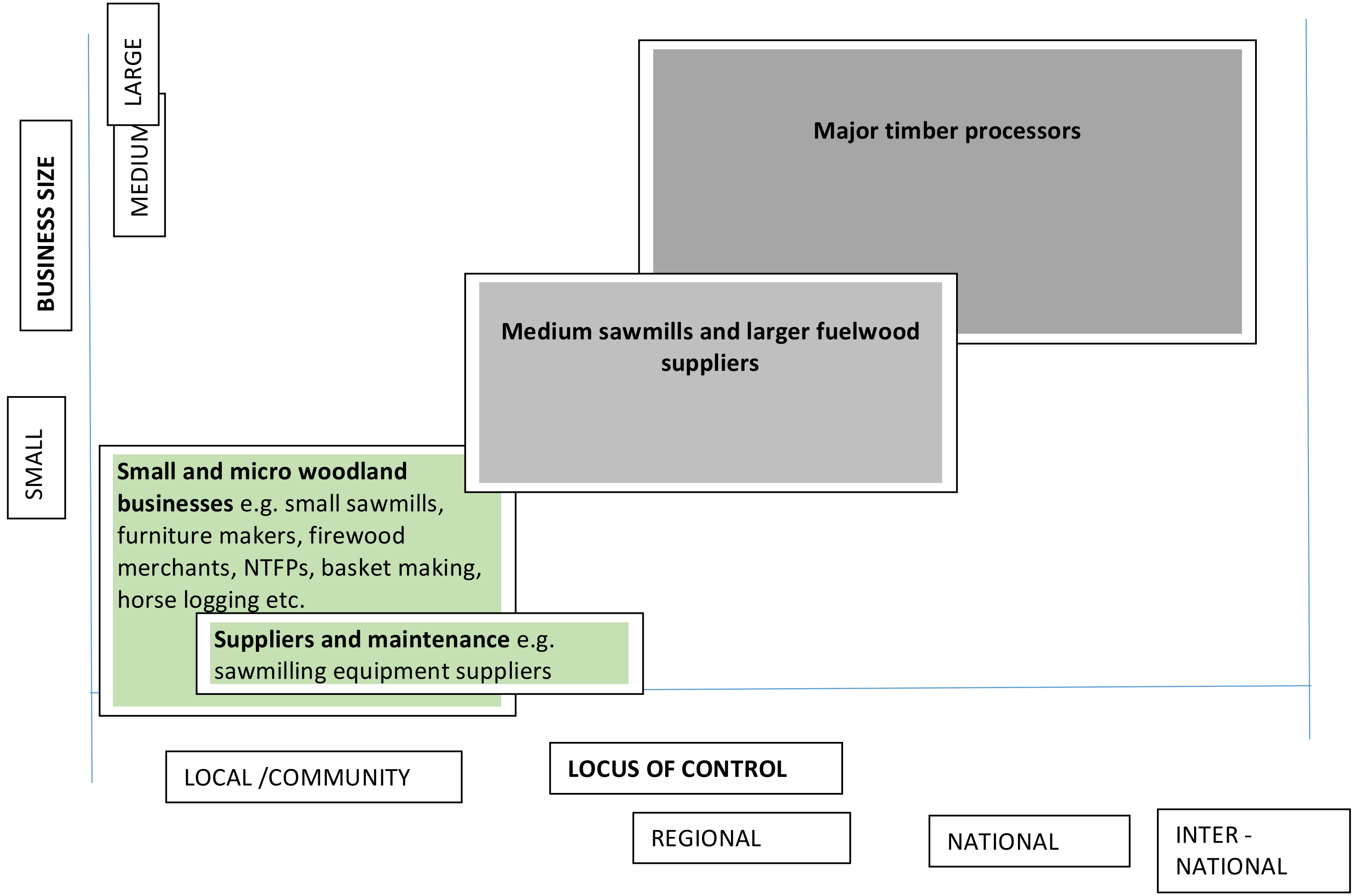

Figure 1b A schema showing the business types considered in this report (green) in terms of their locus of control and business size – products and processing

3 A framework for assessing the evidence

To assess the evidence we analyse the sector by breaking it down into:

A. Different types of stakeholders:
- Woodland owners/occupiers
- Growers
- Non-timber forest products
- Primary processors
- Manufacturers
- Businesses using woodland locations
- Suppliers
- Contractors
- 'Enabling organisations' which support the local/small sector

B. Evidence addressing different question:
B1 Do we know **how many and what kind** of businesses are involved?
B2 Do we know the **financial value** and / or other **impacts** of the businesses?
B3 Do we know **what stimulates** innovation (the move from no enterprise to enterprise, or to different enterprise) and growth?
B4 Do we know what **effect government (and other external) support** has on the level of innovation, growth and benefit of the business?

C. Quality of the evidence:
- **Breadth** – geographic coverage
- **Detail** – quantitative
- **Explanation** – qualitative
- **Currency** – up-to-date
- **Relevance** – if not in Scotland, how well do the conclusions apply to Scotland

We apply this framework as follows. We first consider the stakeholder types and their organisations, as an entry point for addressing question B1. We then use indirect evidence from relevant reports and websites, to address questions B2-B4. Finally we summarise the quality of evidence available for each of these components.

4 How many and what business activities are involved in the sector?

4.1 Types of business activity and stakeholders

Drawing on Figure 1, we can analyse the range of stakeholders involved in the sector. Each of the 7 main stakeholder group (see sections 4.1 – 4.7 below) includes further subdivisions according to business activity, giving a total of 22 categories. These, with organisations representing them, and any estimates of numbers, are summarised in Table 1. Further details on particular groups are provided in Appendix 3, and a summary of information sources available is provided in Appendix 4.

4.1.1 Growers and woodland owners

Community Woodlands
Most community woodlands are small businesses expressly set up to bring woodlands under local control, and maximise the benefits of woodland management accruing locally. The numbers of community woodlands have increased from 51 in 2002 (MacIntyre, 2002) to 204 in 2012 (Stewart

and Edwards, 2013). The total land under management is just under 100,000 ha – of which about 70% is owned, 30% is under management agreement; 50% of area is non-woodland habitat, mainly open hill land. Individual woodlands vary from a few hectares, especially in urban situations, to several hundred hectares.

The representative organisation is Community Woodlands Associations www.communitywoods.org, which has 150 voting members (community groups) plus another circa 25 who are represented by umbrella members (e.g. Borders Forest Trust), plus 100 associates and individuals (non-voting).

Private owners of small woodlands
Small businesses and private individuals owning small woodlands comprise: semi-professional and hobby owners; professional foresters individually or in syndicates; and farm woodlands (i.e. owner occupier farmers and farming tenants actively involved with their woodlands). There is an increasing trend for individuals to own and manage woodland but no statistics describing the scale of this. Oddly there appears to be no information on the numbers of farm businesses involved in woodland management, nor the number of small woodlands on farms.

There are two organisations at UK scale that support or represent small woodland owners: Small Woods (formerly Small Woods Association) http://smallwoods.org.uk and Small Woodland Owners Group http://www.swog.org.uk set up and sponsored by the company Woodlands.co.uk. Small Woods has about 100 members in Scotland (5% of the UK total). Members are located mainly in central belt, Borders and Dumfries & Galloway, Perth & Kinross, Fife and Angus, though some woods in Scotland are owned by people with addresses elsewhere in the UK. Woodland size ranges from 0.2ha to 42ha; and are 25% broadleaf, 12% conifer and 63% mixed woodland

Farm Machinery Rings are seen as a successful organisational structure for enabling farmers to share machinery cooperatively (Artz and Naeve, 2016; Tregear and Cooper, 2016; Schiller et al., 2014) and a promising approach to support farmers with woodlands. There are 13 machinery rings in Scotland (see www.scottishmachineryrings.co.uk) and several of these are starting to offer services in woodland management (e.g. Tayforth). There are some local farm forestry initiatives: Breadalbane Initiative on Farm Forestry, Aberfeldy; Argyll Farm Woodland Collaboration Project; but these don't appear to have generated publicly available information.

Woodlot Holders
Woodlots, where forestry professionals lease areas of productive woodland, have emerged in recent years organised by the Scottish Woodlots Association http://www.scottishwoodlotassociation.co.uk. Currently there are 9 woodlots with 7 owners, covering 174.5 ha.

Crofters with woodland
There are 9 community-owned woodland crofts on Mull, and 3 (imminent) community-owned crofts at Kilfinan; plus a handful of privately owned ones elsewhere http://woodlandcrofts.org.cp-27.webhostbox.net/?p=545. The Woodland Croft Partnership has been set up to promote and develop woodland crofts (comprising the Scottish Crofting Federation, the Community Woodlands Association, the Highlands Small Communities Housing Trust and Woodland Trust Scotland).

Coppice growers
There are few small woodland owners who specialise in managing woodlands for coppice products i.e. beanpoles, walking sticks, willow, firewood. Coppice growers are supported by the National Coppice Federation http://ncfed.org.uk/. Only one member is listed for Scotland – Angus Millennium Forest Products (compared for example East Anglia which has 15 members listed).

Local Authorities
Most local councils own and manage a small number of small woods. Some manage these as part of their greenspace programmes, others tend to ignore their existence or treat them as a liability (van der Jagt and Lawrence, 2014). Data on public urban woodland is patchy and unreliable

4.1.2 Timber processors

Small sawmillers
There are roughly 30-40 small sawmill businesses in Scotland; supported by Association of Scottish Hardwood Sawmillers http://www.ashs.co.uk. ASHS is a cooperative of small and medium sized businesses, supplying Scottish hardwood and premium softwood timber products to the UK market place. Currently ASHS has 32 members http://ashs.co.uk/index.php

Log fuelwood suppliers
There is a relatively large number of small businesses involved with log fuelwood. Estimating numbers is difficult because the smaller operators tend to have only a strictly local presence and are hard to contact and enumerate. About 181 businesses are listed at https://woodfuelscotland.wordpress.com/list-of-firewood-suppliers/

Charcoal makers
There appears to be no information on charcoalmakers.

4.1.3 Timber manufacturers

Furniture makers
Scottish Furniture Makers Association has approximately 80 member businesses (details on website www.scottishfurnituremakers.org.uk/); suggesting that this is a fairly large and active sector. However the number using significant amounts of Scottish sourced wood is not known, and many will use some imported timber.

Wood turners
Wood turning spans both small businesses and hobbyists, with by far the most activity in England. No estimates of numbers available. It is supported by several UK scale organisations, (British Wood Turners' Association, Association of Woodturners of Great Britain, Association of Pole lathe Turners and Greenwood Workers). The Association of Pole lathe Turners and Greenwood Workers only lists two Scottish contacts.

Basket makers
Approximately 50 businesses are involved in commercial basket making in Scotland; of which about 20 have this as their main source of income; the rest being hobbyists who occasionally sell things. Produce includes not only baskets, but willow and hazel structures such as fences and coracles. The support group is Scottish Basketmakers Circle (www.scottishbasketmakerscircle.org). Most material is home grown.

Other wood craft makers
There are small numbers of other wood craftworkers not covered in the categories above, such as boat builders and general green wood workers. No estimates of numbers available.

Timber builders
Most housing in Scotland is provided by "volume" house builders using both imported and home grown softwood. There is very small number of niche builders who set out to maximise the use of Scottish timber; plus some architects who promote wooden buildings and will specify Scottish

timber where possible. No estimates of numbers available. Support for "alternative" builders and architects is provide by Sustainable Building Association www.aecb.net (32 of 679 members are listed with Scottish addresses) and the Scottish Ecological Design Association.

4.1.4 Non-wood forest product producers

Foragers (mushrooms etc.) and growers
A small number of businesses operate by collecting food, wild plant seeds, essences , extracts and making drinks. Collection of wild mushroom for sale is the single most valuable product. There is no up to date information on the scale of activity. The support organisation is Scottish Wild Harvest Association http://scottishwildharvests.org.uk.

4.1.5 Businesses using woodland locations

Tourism, wildlife viewing, outdoor activities
Several types of "woodland related" small business exist, where the main activity takes place in woodland, and sometime the business itself is located in a woodland setting. No estimates of numbers available. Some are closely linked with woodlands such as mountain biking and bushcraft, but these are relatively few in number. Businesses in the wider tourism sector that use woodland as a component of wider activity (e.g. wildlife viewing "safaris", guided walking) are far more numerous, but only a proportion of their activity takes place in woodlands.

Accommodation
Woodland provides the setting for accommodation, typically cabins or lodges; where the woodland setting is a unique selling point e.g. https://www.visitscotland.com/accommodation/self-catering/cabins-lodges-chalets. No estimates of numbers available.

Hunting/ shooting
A small proportion of shooting activity is run as locally-organised businesses (most being part of larger landed estate businesses). No estimates of numbers available.

4.1.6 Forestry suppliers

Seed collectors
A few woodland contractors carry out seed collection as part of their livelihoods; some selling directly to tree nurseries, other on contract to Forestart Ltd. No estimates of are numbers available, but is probably no more than 5-10 people (Rick Worrell pers. comm.)

Equipment suppliers
Most equipment supply is generic across the forestry sector, but some are specific to the local/small sector e.g. Woodmizer. No estimates of numbers available.

4.1.7 Woodland Contractors

Forestry Agents and managers
Forestry agents businesses are generic across the forestry sector, covering the range in size from sole-traders to large national-scale companies. A few focus on small woodlands. No data is available on number of businesses.

Small-scale harvesting contractors and horse loggers
Most contracting services are generic across the forest industry, but small-scale harvesting contractors are vital businesses for the local/small sector. The British Horselogging Association has 19 members in Scotland of which 6-8 are in a position to take on work (www.britishhorseloggers.org).

4.2 Summary of business activity types

Table 1. Summary of business activity types in the local/small sector and numbers of business.

Subsector	Representative/Support Organisation and website	Indication of size of sector in Scotland
Woodland Owners / Occupiers / Growers		
Community forests and woodlands	Community Woodlands Association (CWA) www.communitywoods.org	204 community woodlands in 2012 Community Woodlands Association has 150 voting members plus another ~25 who are represented by umbrella members (e.g. BFT), plus 100 associates and individuals (non-voting)
Small Woodland Owners (private)	Small Woods (formerly Small Woods Association) http://smallwoods.org.uk Small Woodland Owners Group www.swog.org.uk	There is no data on the numbers of individually owned small woodland. There are about 100 members of Small Woods in Scotland (5% of the UK total).
Farmer with woodlands	Machinery Rings www.scottishmachineryrings.co.uk	There is no data on the numbers of farm businesses involved with woodlands; or of the numbers of small woodlands on farms. There are 13 machinery rings in Scotland (see www.scottishmachineryrings.co.uk) and some these are starting offer services in woodland management.
Woodlot Holders	Scottish Woodlots Association www.scottishwoodlotassociation.co.uk	9 woodlots with 7 owners, adding up to 174.5 ha
Crofters with woodlands	"The Woodland Crofts Partnership http://woodlandcrofts.org.	"9 community-owned on Mull, 3 (imminent) community-owned at Kilfinan, and a handful of privately owned ones elsewhere"
Coppice growers	National Coppice Federation http://ncfed.org.uk/	Only one member is listed for Scotland
Local Authorities		No information
Timber Processors		
Small sawmillers	Association of Scottish Hardwood Sawmillers http://www.ashs.co.uk/	ASHS has 32 members in 2017
Log fuelwood suppliers	UseWoodFuelScotand http://www.usewoodfuel.co.uk/	181 log suppliers listed; some are estates, others separate businesses
Charcoal makers		No information
Timber Manufacturers		
Furniture makers	Scottish Furniture Makers Association	Scottish Furniture Makers Association has approx 80 member businesses
Wood-turners	British Wood Turners' Association	https://www.bodgers.org.uk/index.php/local-groups lists two Scottish contacts.

Subsector	Representative/Support Organisation and website	Indication of size of sector in Scotland
	Association of woodturners of Great Britain Association of Polelathe Turners and Greenwood Workers www.awgb.co.uk www.britishwoodturners.co.uk www.bodgers.org.uk	
Other wood craftworkers: boatbuilders, green wood workers etc.	www.bodgers.org.uk	No information
Timber builders	Scottish Ecological Design Association www.seda.uk.ne Association for Environment Conscious Building www.aecb.net; now known as the Sustainable Building Association:	No information. There are a small number of builders and architects who build in Scottish timber or seek to maximise use of home grown wood. SEDA has 32 of 679 members are listed with Scottish address)
Non-wood forest product producers		
Basketmakers and willow / hazel coppice for structures	Scottish Basketmakers Circle www.scottishbasketmakerscircle.org	100 members, 50 involved with selling of which circa 20 that have this as their main source of income; rest hobbyists who occasionally sell things
Foragers (mushrooms etc.) and growers	Scottish Wild Harvest Association http://scottishwildharvests.org.uk	No data available on numbers of businesses.
Businesses using woodland locations		
Tourism, wildlife viewing, outdoor activities		No data available on numbers of businesses
Accommodation		No data available on numbers of businesses
Hunting / shooting		No data available on numbers of businesses
Woodland suppliers		
Seed collectors		No data available on number of businesses, but thought to be no more that 5-10 people collecting as contractors
Local tree nurseries		10 businesses listed under 'local native tree nurseries' at https://**treenurseryscotland**.wordpress.com
Equipment suppliers		Most equipment supply is generic across the forestry sector but some are specific to the local/small sector e.g. Woodmizer. No data available on numbers of businesses
Woodland Contractors		
Forestry Agents	Confor ICF	Forestry agents businesses are generic across the forestry sector, with some small businesses. No data available on number of businesses
Small-scale harvesting contractors and horse loggers	Confor Forestry Contractors Association www.forestrycontracting.co.uk British Horseloggers Association www.britishhorseloggers.org	Forestry contracting businesses are generic across the forestry sector, with mostly small businesses. Some harvesting contractors specialise in small woodland management. There are 19 members of the British Horseloggers Association in Scotland and on the borders. Out of those probably 6-8 are actually in a

Subsector	Representative/Support Organisation and website	Indication of size of sector in Scotland
		position to take on work. Two Scottish horseloggers listed on FCA website
Other contractors: establishment, arboriculture	Forestry Contractors Association www.forestrycontracting.co.uk	Generic across the forestry sector, with mostly small businesses. No data available on number of businesses.
Training		Forestry training businesses are generic across the forestry. No data available on numbers of businesses.

4.3 Conclusions to Section 4

1. We identify 22 business activity types involved in the local/small sector. Some of these are more or less unique to the sector (e.g. community woodlands, small sawmills, foraging), whereas others carry out activity in both the local/small sector and in conventional forestry (e.g. suppliers, contactors, agents).

2. Information on numbers of businesses in each of the 22 categories is very good for a small number of business categories (i.e. community woodlands, small sawmills, basket makers, furniture manufacturers). These are typically ones with active representative bodies. Some of these have had good support from government which has presumably helped with information availability (ASHS, CWA); but there are exceptions, such as the Scottish Basket makers circle.

3. Information on numbers appear to be poor for:
    a. Privately owned woodland businesses including farm woodlands.
    b. Very small scale timber manufacturers in the craft sectors (such as wood turners).
    c. Non-wood forest product (NWFP) producers.
    d. All types of business using woodland settings.
    e. Forest suppliers and contractors.

4. The study of small woodland-owner businesses in Scotland is constrained by incomplete knowledge on forest land ownership.

5 How many and what business types are involved in the sector?

5.1 Small businesses in Scotland

Two surveys of small businesses have been conducted recently and are relevant:

- Federation of Small Businesses. THE FSB 'VOICE OF SMALL BUSINESS' MEMBER SURVEY (Federation of Small Businesses, 2013)
- Small Business Survey Scotland (Office of the Chief Economic Advisor, 2015)

Between them, they provide the following key facts:

- 98% of all Scottish small businesses are small (with 2-49 employees) and 94% are micro-scale (1-10 employees) (FSB 2014)
- 50% of those in the primary industries (including forestry) are micro businesses (SBS 2015)
- 71% of small businesses are family-owned
- 24% are home-based
- 30% are rural
- micro businesses are less likely than other small businesses to have a social media profile, to increase employment or turnover (SBS 2015).

None of this is specific to forestry, but the surveys provide an overview of the small business sector and its challenges, and a suite of indicators that might usefully be applied to the small/ local forestry sector in order to contextualise it. In other words, yardsticks exist, but the data applicable to forestry does not.

5.2 Business types

We have identified no information about the predominant legal forms adopted by local/small forest businesses, except for community woods. Anecdotal information suggests that many local/small companies are sole traders or limited companies with no employees. Community woods in Scotland are generally "companies limited by guarantee" because that is the form that they have been steered into by government legislation relating to the National Forest Land Scheme and the Land Reform legislation.

Social/community enterprises are well represented in the sector. Several studies explore this aspect as it was becoming politically popular, and see woodland social enterprises as providing a model for others to follow (Stewart, 2011). Work developed by the Woodland Enterprise Network (originating in England) has now secured funding from the Heritage Lottery Fund for a project entitled 'Making Local Woods Work' managed by the Plunkett Foundation, with (currently) 10 pilot projects in Scotland. Several studies note that it is important to distinguish between the aims of the business, and the legal / financial model; a social enterprise can be a cooperative, a company limited by guarantee, a charity or a profit-making business (Ambrose-Oji et al., 2015).

5.3 Whole industry survey 2000

A survey report in 2000 provides a model for a baseline study and outline of the whole forest industry sector, noting the comparative absence of enterprise-based statistics and information on the forest industry in Britain (Firn Crichton Roberts Ltd and John Clegg Consulting Ltd, 2000).

3,250 separate forest industry businesses (FIBs) were identified across Britain and questionnaires sent to 30% of them, divided into 13 segments along the home-grown timber woodchains from forest nurseries to static sawmillers', but excluding woodland ownership. An 18% response rate is deemed broadly representative, with response by very small businesses lower, and by the largest businesses more complete.

Key findings are:

- The forest industry in Britain is a predominantly Small and Medium-sized Enterprise sector:
  - over half of FIBs are sole traders (largely self-employed);
  - a further 20% are family- based partnerships;
  - nearly 60% have a home-based business
  - the majority of FIBs have annual turnover below £250K, but with the 8 largest businesses generating over 70% of the survey sample's total turnover
  - over 80% of the survey FIBs employ less than 10 people
- the workforce is predominantly male and not highly qualified:
  - Within the survey FIBs just under 84% of the 2,950 workers are male of which 95% are full-time
  - Nearly 1/3 of the jobs held by women are part-time (many being family members).
  - Less than 40% of employees currently hold recognised technical or professional qualifications, with such qualifications being proportionately more common amongst male workers and within the smaller FIBs.
- Business owners are quite well networked:
  - The owner of the average FIB in the survey typically belongs to more than one Forest Industry Association, with FCA, APF and ICF memberships being most common
- over half of the businesses have been created since 1980, reflecting the growth of conifer planting and processing and the strengthened policy interest in conservation and broadleaves.

In terms of business performance and growth: In the 3 years to spring 2000:

  - nearly 75% had increased or maintained employment
  - 73% had improved or retained their turnover
  - over 25% had achieved a rise in profitability
  - Diversification has been pursued by 607 of the survey FIBs, with positive association between diversification and business turnover and profitability.

- The FIBs identified the following as the main pressures:
  - increasing costs (especially fuel and transport), technical regulations, finding time for marketing, declining profitability, and recruiting reliable employees
- only 38% of FIBs have a formal business plan; and 41% have a training plan
  - this broadly matches other SME-based sectors
  - Scottish-based FIBs are more likely to have such plans, probably reflecting the longer existence of regional development agencies.
- The most common source of business development advice:
  - knowledge of the business owners
  - accountants / auditors / other company employees
- on receipt of grants:
  - Around 28% of the FIBs in the survey had received external grants
  - This is higher among medium sized enterprises (25-99 employees)
  - Higher in Scotland and Wales than in England.

5.4 ASHS survey

The general overview, but dated findings, of the Firn Crichton Roberts / John Clegg report (2000) is contrasted with a detailed report from ASHS in 2016, the latest in a series conducted by this association of sawmillers (ASHS, 2016).

This indicates that of the 14 members who responded:

- Business turnover averaged £160,000 (up 13% from 2015) suggesting a total turnover of £5.4M for all 34 members
- Business turnover range: £18,500-£360,000.
- Half had increased turnover compared to the previous year; slightly more than half expected it to grow next year.
- Employment averaged 2 full-time, 2 part-time per business. Most showed and expected no change.
- Investment was an average of £38,000 per business (up an increase of 52% from 2015)

5.5 Conclusions to Section 5

1. Good national-scale information exists on small businesses in general from the Federation of Small Businesses and Small Business Survey Scotland; and the indices used in these surveys may be worth considering for forestry businesses.

2. The most recent whole forest industry survey in Britain shows forestry businesses are predominantly small and medium-sized; over half are sole traders (largely self-employed); a further 20% are family-based partnerships; and nearly 60% are home-based.

3. There is a wide variety of business models and legal forms adopted by local/small forest businesses. Social/community enterprises are well represented in the sector. There is little quantitative information about this, except for community woods.

4. Profitability of contracting businesses varies more widely than their larger counterparts, especially amongst the smallest (sole-operator) enterprises.

6 What motivates businesses in the sector?

6.1 Woodland owners' aims and motivations

Studies of owners' attitudes and decisions in the UK are at a disadvantage as there is no complete database of land or forest ownership. There have been many studies of owners' perceptions and management objectives, which Lawrence and Dandy (2014) summarise in a meta-study of 42 surveys (few of which are in Scotland). They conclude:

- While woodland owners are often held to have a low level of interest and management activity, there are many exceptions to this, and land management decisions are more differentiated within the socio-cultural, multipurpose landscape than has been previously acknowledged.
- Many woodland owners see themselves as managing their woodlands, in contrast to official perceptions and statistics.

They find that the most commonly cited objectives for woodland management are as follows (most common first):

- conservation, biodiversity and wildlife
- maintaining woodlands as landscape features
- providing shelter for stock or crops
- venue for sporting activities such as shooting
- personal amenity and leisure activities.

As the authors point out however, this list is highly dependent on the sample and varies between studies, and according to the requirements of any grant schemes. What it does appear to highlight is the general background lack of interest or motivation for productive management of small woods, and the need for more detailed study of the choices made by those who have, by contrast, established working woods.

A review of forest ownership literature in the UK, for the COST Action FACESMAP, detected five core themes of research and consultancy (Wong et al., 2015):

- disposal, management and use of public forest
- perceptions and motives of private owners
- development of community woodland groups
- attitudes to woodland creation
- private forest land sales and management.

While this makes the interesting point that there is a more active land market in the UK than in many other European countries, it still highlights the lack of research attention to innovation, new ownership, and business development in British (or Scottish) forestry.

Small woodland ownership, across England Wales and Scotland, has been fuelled in recent years by the 'lotting' of medium sized woods (less than 50 hectares) and selling the lots in small parcels to new woodland owners. Lots are sold by the acre, commonly in units less than 10 acres, often comprising broadleaved woodland, or conifer woodland that lends itself to amenity management. The preeminent company in this market is Woodland Investment Management Ltd. They trade under the name woodlands.co.uk, have been in existence for some 36 years and have sold an estimated 1200 small woodlands across the UK. They currently have 73 woodlands for sale, or recently sold, in Scotland. Established forestry agents, such as John Clegg and Co. also employ 'lotting' of larger forests as a mechanism for gaining higher prices per unit area and for ease of selling where the forest for sale has high amenity value, and usually little economic value.

Woodlands.co.uk conducted two woodland owners attitude surveys, in 2011 and 2016 (Jeremy Leach Research Ltd, 2016; Jeremy Leach Research Ltd, 2011). The surveys were carried out to better understand why owners buy small woodlands and how they manage them. The survey sample was chosen from the Small Woodland Owners' Group[3] (SWOG), a group sponsored by woodlands.co.uk, and consisting mainly of their woodland purchasers.

Most respondents to the 2016 survey view themselves as guardians of their woodland, actively managing the woodlands, primarily for conservation and wildlife, and with peace and quiet cited as an overarching motive for owning a small wood. The woodlands are too small to be of any economic worth and the most practical benefit of ownership, detailed by survey respondents, was the collection of firewood. It is likely that a comparable survey focusing on Scotland would have results oriented more towards production, but this has not been tested.

[3] http://www.swog.org.uk/

A major 'segmentation study' commissioned by DEFRA notes:

> 'The survey results suggest that small woodland owners are less likely to have conducted the management activities referred to in the survey during the past five years. In terms of barriers to management, small woodland owners cited lack of economic returns, the small size of their woodlands and a lack of time as barriers more often than those with larger woodlands. Over a fifth of small woodland owners cited lack of knowledge, far in advance of larger woodland owners.' (Eves et al., 2014b).

The study is specific to England, and the authors recognize that (like virtually all earlier studies) definitions of 'management' and attempts to reach 'disengaged owners' were lacking in these studies (Eves et al., 2014a).

This conclusion fits with a predominant narrative about small woodland owners; however innovation studies suggest that it is more important to focus on what has supported change among the few who have broken the mould, rather than to focus on the blanket statistics about small owners.

6.2 Innovation and entrepreneurship

Studies of innovation are highly relevant to business start-ups and growth. There is very little published about this in Scotland, but a body of European literature is relevant, coming out of Cost Action E51 and EFI project INNOFORCE, both of which focused on 'innovation and entrepreneurship in forestry'. Key papers from these highlight shifts in policy support which are needed to increase innovation. In particular they recommend (Rametsteiner et al., 2006; Rametsteiner and Weiss, 2006):

- Policy should focus on supporting interaction and interconnectivity rather than organisation
- Offer incentives for 'more radical innovation' and support experimentation
- Support business-to-business interactions

A paper which examines support for innovation processes in Non-Wood Forest Products in four European countries (including Scotland) focuses on typical enterprises and start-ups which 'tend to be small-scale and family owned' (Ludvig et al., 2016b). The entrepreneurs show some common features in the ways they started their business. However, they have applied individual strategies for the realisation of their own ideas. All used some "external" support, but at very different levels, ranging from monetary support and consultation with support organisations to personal non-monetary exchange relationships in social networks within a communal area. The study concludes that entrepreneurial behaviour is a very individual and context-specific undertaking on the one hand and as a "universal" activity with common features and attributes on the other.

A further study by the same group looks at the ways in which different types of institutions have impacts on innovations. Innovations were developed by associations and cooperatives of producers that were supported by private consulting companies in the first two cases, and by a municipality in the third case. They conclude that institutions can also be part of the innovations themselves (Ludvig et al., 2016a).

The Birnam Conference provided some insights into motivating factors for small business development. These related to a wider range of factors than just income. Neil Black of Gatehouse Nursery moved out of farming because of the financial pressures in the agricultural sector and into firewood processing and sales. He benefited from a significant six figure Farm Business Diversification Grant. Keith Threadgall, Woodmizer's agent in Scotland and northern England, moved from contract sawmilling into machine sales as a means of diversifying his income. Pete McCracken of Taynuilt Nursery, moved out of academia and the University of Edinburgh into small scale tree production on the West Coast as a lifestyle choice. Likewise, a number of furniture makers, builders and saw millers choose small scale business as a lifestyle route. Others saw opportunities, or wanted to demonstrate a new way of working in woods, based on principles and vision e.g. MAKAR, Grantully. In contrast, others were born out of frustration with current / historic context; : Knoydart, MAKAR, or problems with a remote resource (NWMCW).

6.3 Studies of contractors

Likewise there is a good seam of academic literature which analyses business success of the fast-growing number of forest contracting firms, in Europe. Some of this literature is very detailed and would form an excellent template for similar research in Scotland.

For example, Penttinen et al. (2011) highlight the 'weak profitability, liquidity and solvency of harvesting contractors and the consequent difficulty in hiring qualified machine operators [which] make networking and enterprise growth a complicated process'. They analyse financial data from 1,060 Finnish wood harvesting contractors over 2001-2007 and find:

- In 2007 net profit was about 6%
- credit makes up over 50% of turnover
- median financial reserve is €18,000.
- High machine depreciation and interest expenses are the main constraints.

Relevant to this study, they find that profitability varies most amongst smallest enterprises, which most often are sole-operator enterprises.

A study of 322 contracting firms in northern Italy found them to be relatively stable, but with limited investment intentions. 80% were either breaking even or generating only small profits The main constraints were seen as rising costs, taxes and regulations, and unfair competition (Spinelli et al., 2017).

Finally, one from Austria explored the diversification of forest enterprises in Austria (Ungerbock et al., 2015), seen as a strategic challenge for many forest enterprises. The study explored suitable indicators and concluded that diversified activities (beyond timber) were equivalent to only 2.5% of the timber profits.

Data from the UK could be analysed in the same way:

- 1990 Survey of Forestry Contracting Businesses in S W Scotland by John Clegg & Co.
- 1991 /92. Business Support & Training Needs of Forestry Contractors in South Scotland by John Clegg & Co. This led to the setting up of the Forestry Contracting Association.
- Further work was done Barfil Consultants in 2007 see: http://www.forestryscotland.com/regional-groups/south-scotland/south-scotland-projects.

6.4 Innovation

There has been innovation with timber measurement devices and satellite data. There was an excellent response to the Wood Product Innovation Gateway Programme part funded through the EU under the last SRDP programme. There is also work going on through the SFFT & the FC's Timber Development Programme. This provides material for case studies on motivation and outcomes of innovation processes.

6.5 Constraints

As with the previous sections on motivation and innovation, there is little hard evidence. Anecdotal evidence of constraints was provided at the FPG Birnam conference. Conditions may be comparable

in Wales, where a study on setting up tree nurseries in Powys concluded that while there was a high level of interest in setting up tree nursery businesses (OVER and WONG, 2003):
• There is a lack of existing support (technical, financial and marketing) for established tree nurseries and it is difficult to get support to set up a new tree nurseries.
• Individuals who are interested in setting tree nurseries live in very rural locations and only around 50% have email addresses. There is a need to help people use the computer more and in the future to be able to communicate with a coordinator about tree numbers for sale etc. via email.

6.6 Conclusions to section 6

1. There is a lack of research into the processes of innovation and business development, particularly in relation to new ownership in Scottish (and British) forestry.
2. Experience in Europe on Non-Wood Forest Products shows the importance of small-scale start-up businesses; and the need for external support (grants, advice, associations / cooperatives of producers). It also highlights that entrepreneurial behaviour in the sector has many of the "universal" features of start-ups in other sectors, but nevertheless is also very individual and context-specific.
3. The study found no relevant information on constraints specific to business development in the forest sector.

7 What do we know about the impact of the sector?

7.1 Indicators of impact

Very few of the organisations or businesses listed in Table 1 provide information on impact. Those that do, list employment, turnover, and volume as key indicators of business size and impact. For example the Association of Scottish Hardwood Sawmillers lists for 2016 (with 2015 figures in brackets) (ASHS, 2016):

- Hardwood logs bought — 2,800 (3,400) m^3
- Sawn hardwood sales — 1,100 (1,900) m^3
- Softwood logs bought — 4,800 (5,500) m^3
- Sawn softwood sold — 3,000 (3700) m^3

It is interesting to note that employment and turnover have gone up, although volume seems to have gone down. We might assume (although it is not stated) that value-added is increasing?

Other indicators used in the small business surveys provide more nuanced information, for example return on investment, about the effect of encouraging more small businesses etc. For example, the Federation of Small Businesses manifesto for the 2015 election used the following information (for small businesses in general, not forestry specifically):

- 63p additional benefit for local economy for every £1 spent with smaller local businesses
- £7.6bn boost to economy if the number of women-led businesses matched the number led by men

It should be noted that these studies are economic evaluations of the sector. This is a completely distinct approach from evaluations of specific projects and interventions. Evaluation of projects often find it difficult to reach conclusions about impact, rather than outputs. For example, few evaluations are able to report the impact of policy interventions on the amount of wood harvested in a way that can be attributed unambiguously to the intervention (Lawrence 2017).

Consequently while there is good but relatively old evidence in this field, it is 'broad-brush' in its conclusions.

7.2 Studies of potential impact of the sector

Only two regional studies could be identified, that looked at the contribution that woodlands can make to the regional economies of Scotland. One was carried out in Moray by CJC Consulting Ltd in 2005 and the other in Ayrshire by John Clegg Consulting Ltd in 2006. Both these two regional economic studies were high-level ones and are now over 10 years old. Neither provided finer-grain detail of the economic, environmental or social contributions that small woodlands were making in either of these two regions of Scotland.

7.2.1 Economic evaluation of the forest sector in Moray

This study was commissioned by Forestry Commission Scotland (FCS) to evaluate the outputs from forests, woodlands and related activities in Moray in 2005. The overall aim of the study was to 'evaluate the contribution of forests and woodlands to the economy and society of Moray'.

Specific objectives were to:

- Identify the range of outputs that are generated by forestry in Moray;
- Conduct research to evaluate these outputs;
- Use methodological techniques that can be replicated in evaluating the outputs of forests and woodlands in other geographical settings;
- Produce recommendations for developing a transferable framework for evaluating the outputs of forests and woodlands in different localities and regions; and,
- Identify the actual and potential contribution of forestry in Moray to the policies of the Forestry Commission, the Scottish Executive and other relevant bodies.

The contribution that the forest sector had on the regional economy was done by deriving multipliers from the Scottish input-output table using the Generation of Regional Input-Output Tables (GRIT) technique (Jensen, 1990; Johns and Leat, 1987).

As part of the study a detailed survey of forestry businesses was undertaken to provide information on employment, income and trade. No growers were contacted as the study used information on woodland area and timber production statistics and returned questionnaires from 10 agents, 16 contractors and 9 sawmills and first stage processors. Impacts of forest-related tourism were also estimated using existing data sources.

The impacts of the forest sector on society in Morayshire, other than through direct and indirect income and employment, were estimated using non-market benefit values for recreation, biodiversity, landscape and carbon sequestration which were derived from the literature. The Moray Forestry Strategy (Moray Council, 2003) aims to assist the implementation of the Scottish Forestry Strategy by guiding and promoting sustainable forestry within Moray. The study demonstrates the income and employment generated by the forest sector, and the contribution made by the forest sector to the community and environmental agendas of the Council.

The study made the following recommendations for a transferable framework for future regional studies:

- Regions larger than Moray should be used in future to avoid problems with cross-border transfers, confidentiality and imprecise GRIT estimates.
- A combination of local surveys and GRIT estimated multipliers provides the most cost-effective method for obtaining total economic impacts of forestry.
- Whilst it may be worth exploring IDBR data as a source of business addresses, this will not substitute for local information.
- The methods used to derive social and environmental benefits are transferable but would be improved by more reliable estimates of visitor and tourist numbers.
- More information is needed on the effect of landscape improvement and environmental quality on the attraction of people and businesses to a region.

7.2.2 Ayrshire & Arran Woodlands: Their Present & Future Contributions to the Diversification of the Rural Economy

This study was also commissioned by Forestry Commission Scotland. The aim of the study was to identify: how Ayrshire's woodlands and forest industry individually, or in combination with other key sectors offering potential for economic diversification – agriculture, tourism, leisure & recreation; renewable energy & services – could maximise their contribution to diversifying the economy and supporting sustainable rural development.

The study estimated the direct and indirect contributions the forest sector was making to the rural economy of Ayrshire and Arran using existing data sources. It did not involve any detailed primary survey work. It identified four ways in which the existing coniferous woodlands could help to diversify the rural economy and these were by:

- Raising the impact of the existing management & harvesting operations
- Adding value to forest products
- Adding value to tourism & recreation activities
- Developing new markets for roundwood, particularly the wood energy market

The study did consider broadleaved woodlands but stated that their direct economic contributions were very small because of their total area in Ayrshire & Arran was small, but the study stated that broadleaved woods and hedgerow trees made significant social and environmental contributions. The study identified four ways in which the existing broadleaved woodlands could help to diversify the rural economy by:

- Developing new wood markets
- Supplying a wood energy market
- Developing non-timber forest products
- Contributing to farm business diversification

The study stated that the reasons why the contributions of the woodlands and the forest industry had not been greater were: a lack of information; lack of skills; no local exemplar projects in the case of wood energy; and complexity in the institutional support network and partnership working.

7.3 Case studies of small businesses

The case studies prepared for the FPG conference provide more detailed information on finances and employment in the small/local forestry sector, than any other source currently available (see Appendix 5). Even these however provide mixed data with many gaps.

From the case studies;

- the two timber design and building companies (Makar, NorthWoods) turnover in excess of £3.75 million per annum and employ 33 FTE's;
- four large community forests (Knoydart, Kilfinan, Abriachan, NWMCC) employ 19 FTE's between them;
- NWMCC turns over in excess of £1 million per annum, Note, this is dependent on their conifer felling cycle;
- the three timber processors (Keith Threadgall -Woodmizer agent, Angus Ross – furniture maker and Scottish Wood – small scale sawmill) have a combined turnover of £750k to £1 million per annum, and between them employ 10FTE's;
- Gatehouse Nursery turns over £200k per annum in firewood sales and employs 3 FTE's;
- and Taynuilt tree nursery turns over £40k to £55k per annum and employs 2 FTE's.

The experience of producing these case studies highlights the effort required for both researchers and small businesses to identify the relevant data. Further qualitative points drawn from the conference are highlighted in Box 2.

7.4 Social impacts

The benchmark study for social benefits of forestry in Scotland is the Forestry for People report (Edwards et al., 2008), although again small/local are not separated out from mainstream forestry. Indicators relevant to this study include:

- 13,200 full-time equivalent jobs linked to the use of Scottish timber
- £460 million gross value added (GVA) associated with Scottish timber
- % of the Scottish adult population have attended an event in a wood that involved physical activity in the previous 12 months

The total income that was received by (139) community woodland groups in Scotland is estimated to be around £4.5 million between mid-2006 and mid-2007, of which 50% was grants from public bodies, 17% from donations, 10% from membership fees, 6% from sales of forest products, and 6% from sales of other goods and services (Edwards et al., 2008). [The report does not state where the other 11% comes from].

Lawrence and Ambrose-Oji, (2014) assessed all the known evidence of impact for community forestry across the UK), and noted the following relevant points:

- The majority of evaluations are conducted by the public sector and not by members of the community woodland groups.
- Evaluations tend to focus on the positive and the quantitative, and relate predominantly to outputs (e.g. trees planted, meetings attended).
- Only 21% of cases identify outcomes (e.g. neighbourhoods enhanced, wellbeing enhanced).
- Attention has shifted from biophysical to social and participation indicators in recent years, but evidence of change over time is lacking.
- There is little evidence of community empowerment or meaningful engagement in decision-making. This is not to say that empowerment or engagement are not happening, but rather that the evaluations are not focusing on these issues.

7.5 Farm woodland

Perhaps more study has been made of farm woodland than other types of small local woods, several of them summarised in Lawrence and Dandy (2014), noting that farmers are more immediately responsive to grants than to prospects of returns from timber, or land price speculation. More recent work focuses on the trade-offs between sheep and trees, and concludes that there is 'great potential for integrating agriculture and forestry to achieve environmental benefits without compromising productivity.'(Beckert et al., 2016)

7.6 Conclusions to section 7

1. Very few of the organisations or businesses listed in Table 1 provide information on impact. Those that do, list employment, turnover, and timber volume as key indicators of business size and impact.
2. Evaluation of projects often find it difficult to reach conclusions about impact, focusing instead on outputs, because the evaluation is done immediately after the project ends to check on use of funds and achieving initial targets rather than leaving the evaluation until a few years later.
3. Studies of both regional impacts of forestry and social benefits looked almost exclusively at the contribution conifer forests and conventional forestry businesses and there are no studies giving useful information on the local/small sector.
4. Case studies prepared for the FPG conference provide some useful qualitative insights into impacts, which would merit further research.
5. There is good information on the economic value of community woodlands, suggesting total income of £4.5 million, split between 50% grant and 50% other sources. Evaluations tend to focus on the positive and the quantitative, and relate predominantly to outputs (e.g. trees planted, meetings attended etc.); and they have failed to focus on evidence of improved community empowerment.
6. There appear to have been no systematic studies of the economic, social and environmental contributions of farm woodlands in the UK, which is probably the biggest sector of privately owned small woods.

8 What do we know about the effectiveness of support to the sector?

8.1 General support to small businesses

8.1.1 Business Gateway and Scottish Enterprise

Business Gateway was established in 2008, when the responsibilities for delivering small business support was transferred from Scottish Enterprise to local authorities. Prior to 2008, Scottish Enterprise were instrumental in supporting some local and community forestry initiatives, including seed corn funding for regional groups, such as Borders Forest Trust and Tayside Native Woodlands. Scottish Enterprise has focused its funding support of Scottish forestry on timber processing, alternative uses for timber as a material for processing and financial support for large scale design and manufacturing technology. Much of this comes through Scottish Enterprise who also work with the private sector through the Scottish Forest and Timber Technologies group.

Business Gateway supported by Scottish Enterprise offers help and advice to people wishing to set up their own business, and also to those wishing to expand and grow their business. This help takes the form of providing guides on subjects such as marketing, finance, and employment, events and workshops and articles and case studies. These are all free. Some consultancy advice can be available for free, or at a subsidised rate.

8.1.2 Forestry Commission Scotland

Forestry Commission Scotland does not provide business advice, but it does offer grants through the Scottish Rural Development Programme for investments in new specialised equipment which will increase the local small-scale harvesting and processing capacity with the aim of:

- helping to bring woodlands into management
- promoting the economic and sustainable production of timber and timber products through processing
- adding value to local economies on a non-industrial scale (less than 10,000 tonnes per annum of roundwood for harvesting or extraction equipment, or less than 5,000 tonnes per annum of output for timber processing equipment)
- providing support to facilitate and enable diversification and to assist with the creation of new small enterprises and related employment

Grant support is based on actual costs with a maximum contribution of 40 per cent. The balance of funding must come from private funds and not from other public funds. Public funds include all EU funds, and any UK government funds, including local authority and lottery grants.

In any single application, the minimum grant award total will be £2,500 and the maximum grant award total for each application will be £35,000.

FCS has also successfully supported aspects of locally-controlled forestry activity via its support to the community woodlands sector and more recently the Scottish Woodlots Association. A CWA survey demonstrates that partnerships with FCS continue to be valued by community organisations, who expressed generally positive views of the mutual understanding and communication between partners. 68% of respondents reported that the achievements of the partnership met their expectations either completely or so far to date – with similar results in two previous surveys. Accessing funding and resources in a time of general austerity is a significant obstacle for many community partnerships, and may be hindering delivery in some cases, whilst elements of FCS practice present a challenge for some community partners (Commmunity Woodlands Association, 2016).

Forestry Commission Scotland has also invested in supporting farm forestry and small scale harvesting via demonstration programmes, research and technical advice. FCS has supported the small sawmill sector via the Scottish Hardwood Timber Market Development Group and an ongoing programme of joint working with ASHS, which has help develop the organisation and increased its profile. More recently, FCS have supported local fuelwood suppliers. FCS has also successfully supported aspects of locally-controlled forestry activity via its support to the community woodlands sector and more recently the Scottish Woodlots Association.

FCS grants were identified at the FPG conference as being of particular benefit to a number of small business initiatives including the Fife Rural Skills Partnership and the Tayforth Machinery Ring.

8.1.3 Scottish Land Fund and other funders

Financial support is available for community groups to buy and develop land and/or buildings through the Scottish Land Fund (SLF), where this would be for the benefit of their local area. Since 2012 the Fund has awarded over £9 million to 52 community groups delivering a range of projects that will provide jobs, volunteering and training opportunities, social benefits and environmental improvements. HIE delivers this fund in partnership with the BIG Lottery Fund.

The SLF has helped many community groups to buy state forests and run these community forest companies as successful businesses. Participant community forests in the FPG conference who have received funding from the current and previous (Heritage Lottery-funded) SLF include: North West Mull Community Woodland Company, Kilfinan and Gordon.

Small forestry businesses and community groups in Scotland have also been recipients of EU LEADER funding, which is a strand of the SRDP specifically for rural business. We were unable to identify data on numbers and types of recipients. Some case studies are given at the Scottish Rural Network website (https://www.ruralnetwork.scot/), including a LEADER grant towards the Comrie Development Trust for the creation of an orchard.

The Millennium Forest for Scotland Trust made grant awards to fledgling community land groups to assist the development of local forestry business. One such was made to the Isle of Eigg Trust for chainsaws and firewood processing equipment, another to Woodschool in the Scottish Borders for timber processing equipment.

8.1.4 Priorities of & Support for Small Businesses

Two studies have been identified that have focused on small wood processing businesses. Both were conducted by John Clegg Consulting and both are dated. The second study undertaken in 2006 was specifically focused on evaluating publicly funded support provided to small businesses over a 3 year period, particularly those processing hardwood timber grown in Scotland. The results are therefore more extensively quoted in this evidence review.

In 2004 John Clegg Consulting was asked to conduct some market research on behalf of Perth & Kinross Council, Forestry Commission Scotland and Scottish Enterprise, based on experience of the first two wood fairs held at Perth. John Clegg Consulting found widespread support for the events, across the sector, but a very mixed approach to willingness to pay for a stand. This indicates that publicity and marketing is either not seen as the highest priority – or that the businesses are so small that they find it difficult to take this step because of funding and time limitations and are thus caught in a vicious circle.

The second study conducted by John Clegg Consulting Ltd in 2006 was an evaluation of 'The Outputs and Impacts of the Forest Products Initiative 2003 - 2005' funded through the East of Scotland European Partnership.

From 1995 to 2001 Forestry Commission Scotland undertook some innovative and pioneering work in supporting forest product SMEs and micro-businesses that used Scottish grown hardwoods mostly through their support for the work of the Scottish Hardwood Timber Market Development Group. An assessment of the growth in Scottish hardwood sector businesses and their impact on the utilisation of Scottish hardwoods and the economy of rural Scotland was undertaken by John Clegg Consulting in 2003 who found that the number of hardwood businesses in Scotland had increased, jobs had been created and there had been capital investment by a number of businesses. Overall there was an encouraging outlook for the sector. At the same time the assessment found that the growth of many of the businesses was determined to a significant extent by the markets for their products and services.

Responding to these findings, Forestry Commission Scotland submitted two separate but closely related applications to the East of Scotland European Partnership (ESEP) in 2003 for funding for two 3 year projects focused primarily on developing markets for Scottish hardwoods. Both projects were designed to support Small & Medium Enterprises (SMEs) in the forest sector in the East of Scotland, one was focused on SMEs in Eligible Wards and the other one SMEs in Transitional Wards. The Executive Summaries to both applications were the same and they identified that the grants from the ERDF would contribute to the following three strands of activities:

• Marketing events for 'forest products' SMEs to market products/services to wider audiences: Scottish/UK buyers, inter trade sales opportunities and end users

• Business development networking events for SMEs to enhance individual & collective product marketing & encourage entrepreneurship, growth and improvements in service quality resulting in increased sales & job creation.

• Treefest events for public/end users which will promote use of Scottish timber, provide educational opportunities on sustainable development issues & complement tourism promotion within East of Scotland by providing opportunities for day visitors and tourists.

These activities were undertaken with funding and support from a number of delivery partners such as Scottish Natural Heritage, City of Edinburgh Council, Forestry Commission Scotland, Four Winds Inspiration Centre, Perth & Kinross Council, Angus Council, Aberdeen Council, Grampian Woodlands Initiative, Scottish Forest Industry Cluster, the Association of Scottish Hardwood Suppliers (ASHS) and the Scottish Furniture Makers Association (SFMA).

8.2 Case studies of small businesses

Case studies prepared for the FPG conference provide a source of information on funding and support to the small/local forestry sector (see Appendix 5). Even these however provide mixed data with many gaps. A number of the FPG case studies received funding from the Scottish Land Fund in respect of land purchase and revenue costs; those involved in timber processing and purchasing capital equipment received SRDP funding, and the woodfuel business at Gatehouse received a significant grant from the Farm Business Development Scheme. Small woodlands, such as Craggach, received SRDP income for new planting, management and restocking, and a number of community forest groups, such as Kilfinan, received grant aid from Highland and Islands Enterprise and the EU supported Climate Fund.

The experience of producing these case studies highlights the effort required for both researchers and small businesses to identify the relevant data.

There is a lot of scope to follow up on the many businesses listed in Table 1, by examining their webpages and reports. It is also important to recognise that this information is incomplete and sometimes out of date or incorrect. Small businesses can pay less attention to updating websites with the result that many (in 2017) say 'coming soon in 2012' – or similar.

8.3 Conclusions to section 8

1. Business Gateway supported by Scottish Enterprise provides information and support on marketing, finance, and employment. Consultancy advice is available for free, or at a subsidised rate.
2. Forestry Commission Scotland does not provide business advice, but offers:

    - grants for investments in new specialised equipment through the Scottish Rural Development Programme.
    - Technical and promotional support for certain sectors, such as small sawmills, log fuel supply and farm woodlands.
    - a broad range of financial and other support to the community woodland sector.
3. Scottish Land Fund (HIE and BIG lottery Fund) supports the acquisition of land by community groups.
4. There is evidence that FCS support is welcomed, and if often crucial to the development of local/small woodland businesses.
5. There is only very limited research on the priorities for support as seen by small businesses themselves.

9 Forthcoming work

Further studies are reported as in progress, and will contribute further evidence relevant to the topic of this scoping study as follows:

- 2016 update to the CJC Consulting study of Morayshire, by Steve Westbrook and Amanda Calvert: 'Moray Woodlands Strategy- sustainable economic development: increasing economic impacts to contribute towards Moray's sustainable economic strategy'. This is more supply chain focused, included numbers of employees and businesses, from very small sawmills, through small forestry companies, through to large. HIE funded, project concluded but not been cleared for release.
- 'Survey of Woodland Owners in Argyll and Bute' [Rural Development Initiative]
- 'North Ayrshire Council Biomass Supply Chain Study' [Steve Luker Associates]
- Argyll – Investing in Ideas application which is focusing on exactly this theme.
- Heritage Lottery funded study on 'Mobilisation of social, environmental and economic assets of [small] woodlands' in Argyll and Bute, Dumfries and Galloway, and Lochaber [contact: Amanda Calvert]
- Under SIMWOOD, a case study of the economics of horse logging [contact: Amanda Calvert]

These studies will collectively add detail to the picture summarised here. Two aspects in particular which do not appear to be covered are:

- More detailed qualitative case studies which understand and document the experiences, motivations and development pathways of individuals and their businesses – the human detail;
- Impact of investment, especially social and environmental impacts and the effectiveness of grants and other forms of policy support.

10 Conclusions

10.1 Summary of state of evidence

Table 2 summarises the state of the evidence identified for each sub-topic.

Table 2: Currency, range and depth of evidence identified in relation to small/local forestry sector

	Age (currency)	Range	Depth
Ownership	• Relatively recent	• Enormous • International • Lacks factual detail in Scotland • Community woodlands excellent detail	• Some in depth case studies of owners' motivations and activities • Lack of evidence on links between owners and business
Business	• Old (2000-2006)	• Wide, patchy, incomplete • Good UK study, whole forest industry sector; scope to take same structure and apply it to small business sector in Scotland	• Very few case studies describe the details of business innovation and development
Use / consumption of local forest products	• Recent	• Patchy	• Some in-depth case studies
Government incentives	• Relatively old	• Patchy	• Some case studies
Impact: jobs, well-being	• Inconsistent	• Scarce formal case studies • Numerous informal and uncollated case studies including those from Birnam conference, articles in Reforesting Scotland etc.	• Inconsistent

10.2 Ability to address the research questions

In this section we briefly assess the ability of the evidence to address the research questions:

How many businesses are there in the local forest business sector and what sizes are they ?

5. We have identified 22 different business activity types involved in the local/small sector. Information on numbers of businesses in each of the 22 categories is very good for a small number of business categories (i.e. community woodlands, small sawmills, basket makers, furniture manufacturers). These are typically ones with active representative bodies. Some of these have had good support from government which has presumably helped with information availability (ASHS, CWA); but there are exceptions, such as the Scottish Basket makers circle.

6. Information on numbers appears to be poor for:
    a. Privately owned woodland businesses including farm woodlands.
    b. Very small scale timber manufacturers in the craft sectors (such as wood turners).
    c. Non-wood forest product (NWFP) producers.
    d. All types of business using woodland settings.
    e. Forest suppliers and contractors.

How many are employed and what approximate turnover is involved ?

7. Businesses providing information on impact tend to list employment, turnover, and timber volume as key indicators of business size and impact.

8. There is good information on the economic value of community woodlands, suggesting total income of £4.5 million, split between 50% grant and 50% other sources.

9. The FPG case studies provide incomplete information on employment and financial turnover, however gleaning complete data with modest effort is feasible

10. There appear to have been no systematic studies of the economic contributions of farm woodlands in the UK, which is probably the biggest sector of privately owned small woods.

11. Studies of both regional impacts of forestry and social benefits looked almost exclusively at the contribution conifer forests and conventional forestry businesses and there are no studies giving useful information on the local/small sector

How much woodland is used or managed by such businesses?

12. Estimate of the area of woodland managed is available for Community Woodlands (circa 50,000 ha) and Woodlots (170 ha), but not for private owners including farm woodlands which is the biggest sector in terms of the numbers of woods and businesses involved. Data on this is limited by the fact that there is currently no database of woodland ownership that allows identification of small privately owned woodland properties.

Motivations of small-business, why/how they formed

13. There is a lack of information on any aspect of motivation, start-ups, and business development in Scottish (and British) forestry literature. There are a number of unpublished sources in consultancy reports, and case studies from the Birnam Conference, which would provide fruitful material for further analysis.

What grants or other government support are received?

14. Grants are channelled through a variety of sources, mostly via the Scottish Government in the SRDP and the Scottish Land Fund (Big Lottery). EU LEADER funding, which comes through the SRDP is channelled through local authority LEADER groups and directed towards rural business. Useful targeted support has been provided to a few subsectors via joint working between FCS and supporting organisations such as ASHS, SFMA, and CWA. Business Gateway provide general business support, HIE provide support to groups and business in their geographic area and Lottery funds can be accessed by community groups for small business development. Some community groups, such as Abriachan and Blarbuie, benefit from NHS contract work and funding in relation to mental health and community care support.

What is the effect of such grants?

15. Whilst there is considerable anecdotal evidence that grants are crucial for local/small businesses, very few of the organisations or businesses listed in Table 1 provide information on the impacts of grant support.

What are the local benefits in terms of community, environment, local economy?

16. Local benefits be assessed through outcomes such as local employment, money into the local economy, areas brought into active management, visitor numbers. Employment, part time or full time equivalents, is a significant benefit, most readily quantified where communities have acquired commercial state forests, and jobs are created in local areas where previously there were none. Many groups and businesses contribute to the local economy through trickle down, money spent locally.

10.3 Reflections on evidence

1. This review of available evidence indicates very significant gaps in up-to-date knowledge of the local small-scale forestry sector. Basic knowledge of the size of the sector, turnover and employment levels is lacking. Studies of small business are up to date but do not separate forestry; studies of forestry are out of date but to some extent separate small business. Both types of existing study are valuable in providing ready-made sets of indicators which could form the framework for a study of the small/local forestry sector, using a sampling approach based on Table 1.

2. Old evidence may still be relevant – studies from 10-15 years ago should not be buried.

3. Longitudinal work (change over time) is identified as a gap in almost every survey of social value of forestry (Edwards et al., 2009; Lawrence and Ambrose-Oji, 2015). Establishing a baseline, with a carefully chosen sample, would allow repeat surveys in future years.

4. Further work is needed to strengthen the contextual information available to allow more meaningful interpretation of the results, in particular by providing data to show trends over time, and by comparing social and economic values for woodland with other competing kinds of land use

5. Although there is academic research about business innovation in forestry in Europe, little of that is based on cases studies in Scotland. There is a need to know more about what triggers innovation, owners' motivations, and the role of 'local' and 'networking' in this.

6. The Birnam conference provided an initial selection of documented stories of individual entrepreneurial activity, outlining what triggered change, and what the lessons are. However more depth and breadth is needed. Very little is available on the impact of government and NGO support, particular in terms of the role of networking and / or associations; role of advisory services compared with grants.

7. More qualitative analysis of existing case studies and articles in newsletters (such as those of Reforesting Scotland, SmallWoods, and others listed in Table 1) would help to fill a significant gap in understanding of motivations, perceptions of barriers and incentives, and processes of change followed by successful and unsuccessful businesses.

11 Recommendations

Improving the knowledge base

1. Follow up work is needed to expand the knowledge base on:
    a. the number of businesses, turnover, employment and outputs in the various sub sectors listed in table 1. One aim should be to work towards a global figure for gross economic output / impact and employment in the local/small sector (as a component of the wider forestry sector). These data should, wherever possible, employ some of indices used in the FSB and government surveys of small businesses, so as to help place forestry small businesses in a wider context.
    b. the motivations, perceptions of barriers and incentives, and processes of change (start-ups, expansion, innovation) followed by successful and unsuccessful businesses, in the forest sector.
    c. the particular types and scales of benefits (economic, social) that accrue to local communities as a result of the development of local/small businesses.
    d. the benefits and impacts of government support to local/small businesses.
    e. data describing change over time in the most important indices used in a-d above, by establishing a baseline using a carefully chosen sample, that would allow repeat surveys in future years.

2. The types of basic information set out in 1 above are needed most urgently for: privately owned small woodlands, including farm woodlands; furniture-makers; non-wood forest product (NWFP) producers, forestry contractors (planters, tree fellers, haulage, machinery) and forestry agents.

Promotion and support

3. A long term process needs to be developed and facilitated among the various sub-sectors of the local /small sector to:
    a. identify the needs of the different subsectors as perceived by the businesses themselves, building on the approaches pioneered by FCS working with ASHS and CWA.
    b. develop the identity of the sector by: helping to develop supporting/representative organisations where these don't exist or are rudimentary; increasing awareness of commonalities of interest with other subsectors; exchanging information and expertise among sub-sectors.

Process

4. The work described in 1 and 2 above should be advanced via a partnership approach including expertise drawn from: local/small forestry business supporting organisations, the small-business sector (non-forestry) such as FSB, Confor, HIE, FPG, and Forest Research.

Appendix 1 People contacted

Andrew Brown, Scottish Woodlots Association
Ian Brown, SmallWoods
Amanda Calvert, SmallWoods
Emma Chapman, Reforesting Scotland
Fred Conacher, Angus Council
Jon Hollingdale, Community Woodlands Association
Gary Kerr, Forest Research
Anna Liebmann annatalamh@googlemail.com
Euan MacKinnon - emackinnon@onetreefurniture.co.uk.
Nick Marshall, ASHS
Peter McCracken peter@taynuilttrees.co.uk
Kate Mobbs-Morgan, chair@britishhorseloggers.org
Angus Ross
Scottish Agricultural Organisation Society
Neil Sutherland, MAKAR
Richard Thomason, National Coppice Development Project
Jane Wilkinson, Special Branch Baskets

Appendix 2 Searches conducted

1. In Web of Knowledge:

Scotland AND forest* AND business – 0
Forest* AND business = 103, of which only 5 are relevant

2. Within the journal Small-scale forestry:

'business' – 200+ of which 3 relevant

3. RSFS archives: search on 'business' and / or 'small-scale' produced nothing recent of relevance to this review
4. Quarterly Journal of Forestry
5. Google Scholar

Appendix 3 Further detail on specific organisations and publications

Survey of Trading

In this survey conducted by the Community Woodlands Association in 2015, 27 groups based in the Highlands and Islands reported trading activity (although the authors note that they are aware of non-respondents who conduct significant trading activity). The main categories were:

Unprocessed roundwood and fuel wood	81%
Events and recreation	48%
Training, Education and Health	44%
Foodstuffs and plants	33%
Sawn timber and wood products	30%
Miscellaneous activities	30%
Other goods and services	30%

Forestry Contracting Association

Members in Scotland estimated from FCA website FCA website:
(http://www.forestrycontracting.co.uk)
Only the most relevant categories have been estimated, based on counting the number of members with addresses in Scotland.
Note that some businesses are listed in more than one category.

	Number of members	Of which estimated number in Scotland
Arboriculture Contractor (121)	121	not estimated
Associate (8)	8	not estimated
Charcoal/Coppice (6)	6	0
Consultancy (1)	1	not estimated
Establishment Contractor (59)	59	not estimated
Fencing (1)	1	not estimated
Forest Owner (10)	10	3 – all large estates
Ground Preparation (1)	1	not estimated
Harvesting Contractor (40)	40	not estimated
Harvesting Contractor – Hard Wood (31)	31	7
Harvesting Contractor – Soft Wood (71)	71	not estimated
Harvesting Contractor Hardwood (2)	2	not estimated
Horse Logging (3)	3	2
Policy Committee Members (19)	19	not estimated
Processor (5)	5	not estimated
Road Building (3)	3	not estimated
Student (2)	2	not estimated
Timber Haulier (5)	5	not estimated
Trade (11)	11	not estimated
Trainer (32)	32	not estimated
Transport, Shipping & Port Operations (1)	1	not estimated
Woodfuel (11)	11	5
Woodland Management (62)	62	19

ASHS

Association of Scottish Hardwood Suppliers (ASHS) is a co-operative organisation that was set up by hardwood businesses themselves with the support of the SHTMDG in 1999. 33 members currently listed on their website at http://www.ashs.co.uk/index.php

Members in turn have their own websites which provide further data that could be collated. E.g. http://www.scottishwood.co.uk

Scottish Woodlots Association

http://www.scottishwoodlotassociation.co.uk

"A woodlot is a small area of productive forestry – typically less than 50 hectares – which is leased to the Woodlot Association, and in turn, sub-let to a licence holder. Woodlots provide people with the opportunity to rent small forest lots for timber production, while helping landowners maximise their forestry potential. The Scottish Woodlot Association work with landowners to identify and manage woodlot locations, and match them to potential woodlot holders, providing advice, guidance, support and a legal framework for both parties. We provide security to both the woodlot holder and the landowner through a lease agreement.

The Scottish Woodlot Association was founded in 2012 and to date has facilitated 9 woodlots with seven owners. The model is innovative but has been slow to take off. It is interesting that of the 9 existing woodlots, 8 are in Dumfries and Galloway (in the south-west of Scotland) where the organisation is based. This may point to the 'local-ness' of local forest governance as well as management."

Summary of current woodlots (information extracted from Scottish Woodlots website plus verbal updates)

Name	Area	Annual Allowable Cut
Birkbush	14.08	0.4 ha
Barbuie	19.96	0.5 ha
Speddoch	17.18	0.4 ha
Balmaclellan, Galloway	7	Not yet calculated / agreed
Craigmuie, Moniaive	25	Not yet calculated / agreed
Castle Wood East and West	30	0.64 ha
Stell Wood, Kirkcudbright	1.2	18 trees of dbh > 7cm
Corsewall, Stranraer	37	0.63

The Scottish Woodlots Association is described as follows in an FAO publication (FAO / Agricord, 2016):
"In April 2016 the Association signed their seventh woodlot licence agreement for land near Dumfries, southwest Scotland. The new site on the Speddoch Estate comprises a number of small woodland parcels which have been combined into three separate licences. One of the new licence-holders, Steffi Schaffler, lives nearby and plans to manage her woodlot using her own horses. The 14 ha woodlot is ideal for them, as Steffi explains:

'It's a great site for horses, not steep and not too wet. I am looking forward to thinning it, which is what horses are really good for.'

Steffi and her partner recently installed a log-burning boiler to heat their home, so the poorer quality timber they cannot sell as sawlogs will be used for fuel.

Another of the licence-holders, Mark Rowe, also lives nearby – this local connection is typical of most wood- lots. Mark runs a mobile sawmilling and general forestry business, and will use the woodlot to support his business and provide fuel for heating. Contributing to both lifestyles and livelihoods is again typical of the woodlot approach."

Reforesting Scotland

As described at its website http://www.reforestingscotland.org/who-we-are/, the vision and membership is closely aligned with local forestry :

"Reforesting Scotland is a membership organisation encouraging free and open debate on a wide range of forest and land issues. … As a grassroots charity we are looking for new members who can help us take up the challenges that face Scotland's native forests and woodland culture in the future. Whatever your interest, be it as a tree grower, a craft worker, a designer of buildings, or simply as a supporter of Reforesting Scotland's aims, join Reforesting Scotland and help practical work towards the regeneration of Scotland's land and communities.

The organisation's journal 'Reforesting Scotland' has produced 53 issues all containing detailed case studies of local forest management and businesses, with scope for review and synthesis.

The website also links to networks initiated by RS, which help to connect woodland groups and businesses within particular sectors as outlined in table 3 below:

Table 3. further links from Reforesting Scotland website to pages within the 'greendirectoryscotland family of websites'

Organisation	Members listed
www.forestharvest.org.uk – wild harvested and woodland products	Not listed
www.woodfuelscotland.org.uk – firewood suppliers	181
www.treenurseryscotland.org.uk – local native tree nurseries	10 under 'local native tree nurseries'
www.willowscotland.co.uk – willow growers Other useful directory websites include:	13 under 'willow makers' 20 under 'willow growers'

www.smallwoodscotland.org.uk – harvesting and small-scale contractors and sawmills Contractors • Mini-forwarders • Horse-loggers • Machinery sales and advice Sawmills: • Mobile • Small hardwood static • Small softwood static • 'to be classified'	 10 1 3 9 15 1 about 40

Housebuilders

Some additional information came in personal comment from members in this sector:

- Very few house building businesses make a habit of using local sourced timber materials.
- 80%+ of construction timber used in the UK is imported, this number fluctuates due to exchange rate etc., but it has stayed pretty unchanged in 25 years.
- Mainstream mass housebuilders ['volume speculative builders '] do business with Scandinavia and cultivate deals with suppliers.
- Concerns expressed about directors of mainstream mass housebuilders lack of information about Scottish timber, e.g. views expressed that Scandinavian timber 'doesn't require drying'.
- Scottish timber not perceived as a component of value.
- These mass housebuilders produce 85% of all homes in the UK; business model depends on profit from increase in land value.
- Need to build precedent and demand within the 'small settlement multiple housing market' (20 – 40 houses).

Appendix 4. Further details of information sources elaborating on Table 1

Subsector	Reports / other information
Woodland Owners / Occupiers / Growers	
Community forests and woodlands	A survey by CWA, of 80 groups in the Highlands and Islands, produced 50 responses of whom 27 groups reported activities that involved trading. The authors considered this to be an underestimate. See Appendix 3 for more detail. CWA case study for FPG conference. Case studies conducted by Forest Research 2012-14, of which 18 are located in Scotland. Available at: http://www.communitywoods.org/resources-details.php?id=7 CWA has conducted several relevant studies, and for further / deeper analysis, it would be valuable to dig deeper into the newsletters and e-bulletins for case studies. The following look at what is already happening: CWA Survey of Trading from Community Woodlands (2016): analyses the findings from research into trading from community woodlands. (Community Woodlands Association, 2016) CWA Timber Products Market Research (2) (2011): details the findings from targeted follow up focus meetings looking at wood product development in community woodlands. CWA Timber Products Market Research (1) (2011): summarises the results of a survey designed to identify what community woodland groups are already doing with regard to production of wood products for sale and what additional support they might require to generate income streams from such production. Others explore future models: CWA Resource Sharing for Community Woodlands (2016): explores models of resource sharing amongst community woodland groups to facilitate better community management. CWA New Community Woodlands in Partnership (2014): summarises the findings from survey work to establish the potential to create new community woodlands through partnership working between communities and land owners. CWA Hydro Coop Structure Report (2016): report on the most appropriate legal model for a co-operative to facilitate investment by community woodland groups in renewables projects. CWA Alternative Funding for Acquisitions (2010): investigates alternative sources of funding to raise capital for community land purchase, with a particular focus on the appropriateness and fit of community share issues.
Small Woodland Owners (private)	Current/ongoing research includes a biomass boiler/woodfuel supply survey in Argyll & Bute, an ownership and contractor study (not yet started) in Argyll & Bute, a report on the economic impacts of the forestry supply chain in Moray (report not yet available - but completed); and a new woodfuel supply & demand report (with FCS). SIMWOOD The EU project SIMWOOD (Sustainable Innovative Mobilisation of Wood) was launched with the aim of promoting a more efficient use of the

Subsector	Reports / other information
	available supply of wood and bolster Europe's forestry and wood industry. *Small Woods* is working with the other UK partners (Forest Research and RDI) to research, develop and run pilot workshops and events in Lochaber with the aim of developing new approaches to facilitating woodland management and timber mobilisation. SmallWoods has one SIMWOOD pilot project in Lochaber but no information about this has yet been published. Case studies listed on website are same as those provided at CWA website (conducted by Forest Research 2012-14).
Small Woodland Owners (private)	Has a members forum at http://www.swog.org.uk/forum/ with a Scotland string, hardly used. Implies very low Scotland activity in this organisation. However both website and newsletter contain numerous articles on productive woodland management and would be a source for further analysis.
Farmers with woodlands	Tayforth Machinery Ring case study for FPG conference. Other machinery rings are doing work with farm woodland; this one was included at scoping stage because it has taken an innovative and proactive approach, and is particularly well documented. See also: SAOS (2014) Borders Machinery Ring Farm Woodlands – Audit Survey. Produced by http://www.saos.coop/ There are some local farm forestry initiatives: Breadalbane Initiative on Farm Forestry, Aberfeldy; Argyll Farm Woodland Collaboration Project. These don't appear to have generated publicly available information.
Local Authorities	The only coppice example in Scotland is Angus local authority. Additional evidence from TWIST report: Van der Jagt, J., Lawrence A. Trees and Woods in Scottish Towns: the role of Local Authorities. Forest Research, Roslin, Midlothian; 2014.
Woodlot Holders	Small case study available in FAO / AGricord (2016) For*EST AND FARM PRODUCER ORGANIZATIONS – OPERATING SYSTEMS FOR THE SDGs*. ISBN 978-92-5-109287-3 (summarised in Appendix 3.
Crofters with woodlands	No published information
Coppice growers	Tim Collins: GREENWOOD CRAFTS : MARKET TRENDS REPORT MAY-JUNE 2005 Materials forwarded by Fred Connacher, Angus Council http://www.reforestingscotland.org/wordpress1/wordpress1/wp-content/uploads/2012/10/2014-Coppice-Network-Study-Report.pdf National Coppice Development Project A project to re-energise and grow the coppice sector in the UK. We aim to extend the area of managed coppice rotations, increase the flow of new entrants to the sector, raise awareness of the need to buy local coppice products to help keep woods in good health, and we contribute to policy development and government thinking. See also the www.coppice-products.co.uk website, on which any coppice worker can advertise their products, services and training. http://www.crannog.co.uk/community/environment/172-woodland-management
Timber Processors	

Subsector	Reports / other information
Small sawmillers	ASHS membership survey 2016 summarises: Business turnover, Employment, Investment But also main strengths, opportunities, barriers, and needs. The report is discussed below under in the impact section, and forms a valuable structure for evaluation of other components of the sector.
Log fuelwood suppliers	Listed at https://woodfuelscotland.wordpress.com/list-of-firewood-suppliers/ See also usewoodfuel.co.uk – currently sends you round in circles
Charcoal makers	No published information
Timber Manufacturers	
Furniture makers	No studies of value/impact of sector.
Wood-turners	No published information
Basketmakers	No studies of value/impact of sector. The Circle does networking, mentoring, has run short courses etc. In the past the Circle has had modest funding from Creative Scotland and Craft Council (?)
Willow / hazel coppice for structures	Report by Jane Wilkinson, Special Branch Baskets. Early 2000s? Not available. [Jane has the last copy] Outline of symposium highlighting cultural / historical value http://wovencommunities.org/blog/the-woven-communities-symposium-august-29th-30th/
Other wood craftworkers: boatbuilders, green wood workers etc.	No published information
Timber builders	SEDA produces the Scottish Ecological Design Association Magazine (latest issue on website is 2014, issue theme Community Action)
Non-wood forest product producers	
Foragers (mushrooms etc.) and growers	StarTree Action Research report: NWFP initiatives in the UK and worldwide (Dickson, 2014) Scottish Working Woods label survey report, 2015 Strategy and reference groups formed for drawing up SWW label criteria for hazel and willow coppice, baskets, and fruit and nut trees SWW information display and sample NWFP products, brought by RS to Wild Forest Products Fair, North Wales, May 2016 'Scottish Working Woods', article in *Reforesting Scotland Journal 52* *[this link failed when tested April 2017]* 'Scottish Working Woods', article in *Scottish Basketmakers' Circle* *Newsletter* 'The Scottish Working Woods label in 2015', article in The Full Circle (the journal of the Association of Scottish Hardwood Sawmillers), by Patrick Baxter, chair of SWW

Subsector	Reports / other information
Businesses using woodland locations	
Tourism, wildlife viewing, outdoor activities	No studies of value/impact of sector. Big Picture have been facebooking on the value of nature (with specific ££ referenced); this would provide material for future qualitative and quantitative studies https://www.facebook.com/ScotlandTBP **Figures for 2015 in Scotland from David Balharry at the Wild Film Festival Scotland, in Dumfries, 26 March 2017. We have not yet been able to locate his sources:** All Tourism £5 billion, growth rate + 5% of which - Nature Based Tourism £1.4bn, growing at + 11% made up of - Walking £533 million Touring £420 m Adventure £178 m Field Sports £136m Eco-based Tourism £127m, growing at + 25%
Accommodation	No published information
Hunting / shooting	No published information
Woodland suppliers	
Seed collectors	
Local tree nurseries	(Whittet et al., 2016)is 'a pretty good summary of the state of affairs in the UK Forest Nursery sector' according to one of those interviewed for it. It identifies a series of practical and economic bottlenecks in the supply of locally sourced seed and domestically produced planting stock including: • adoption of alternative seed sourcing strategies adds further complexity to decisions nurseries make about tree species and seed origins to produce • lack of long-term market predictability brought about by the current configuration of forestry grants and regulations • time and effort to supply healthy plants for native woodland creation projects
Equipment suppliers	See case studies for FPG conference.
Woodland Contractors	
Forestry Agents	The British Woodlands Survey has surveyed woodland owner priorities at 5 yearly intervals. In its current version, responses were received from across the whole of the UK: most private woodland owners were located in England, while agents proportionally represented more properties than owners in Scotland and Wales. Agents were proportionally more strongly represented than owners in Scotland and Wales. https://sylva.org.uk/forestryhorizons/bws2017

Subsector	Reports / other information
Small-scale Harvesting Contractors and horse loggers	No studies of value/impact of sector.
Other contractors: establishment, arboriculture	No studies of value/impact of sector.
Training	Training overlaps with / forms part of many other businesses, e.g. mentioned by ASHS> Of the responses to the CWA survey of trading activities in community woodlands, 44% of those trading (i.e. 12 groups) reported ‘training, education and health’ (Community Woodlands Association, 2016).
Enabling organisations	
	Journal ‘Reforesting Scotland’ provides wide range of material for future qualitative research.

Appendix 5 Summaries of case studies presented at FPG Birnam conference

Name	Financial turnover	Funding Information	Who funded/how funded.	Employment
Abriachan	No information	Some	SLF, FCS, NHS, SRDP, various, timber income	7.5 FTE's
Barfad Willow	£3-£4k PA	Some	Willow sales	20 PT
Birse Community Trust	No information	None	SRDP, FCS, timber income, other	No employees/all contract work
Blarbuie	No information	None	NHS, FCS	1.5 FTE's
Bohenie	No information	None	No information	No information
Castlemilk Park	No information	None	No information	No information
Community Woodland Association	No information	None	FCS and other	No information
Craggach	No information	Some	SRDP, timber income	No information
Falkland	No information	None	Big Lottery Fund, Our Bright Future Fund	No information
Fife Rural Skills Partnership	£200k PA (estimated from BLF grant)	Some	Big Lottery Fund, Our Bright Future Fund, Community Jobs Scotland, Fife Job Contract	No information
Gordon	£3k PA (verbal communication)	Some	SLF, SFGS, SRDP, Xmas tree sales	Zero
Gatehouse	£200k PA	Yes	FBDS, woodfuel sales	3 FTE's
Jubilee	[not a business]	Yes	SRDP and many others.	None
Keith Threadgall	£300-£500k PA (Woodmizer income estimated from machine sales)	Some	SRDP grant assistance funds up to 40% purchase of individual machines	8 PT (estimated from numbers of machines sold)
Kilfinan	No information	Some	SLF, timber income, HIE, Robinson Trust, Climate Challenge Fund, FCS	5 FTE's
Knoydart	No information	Yes	SRDP, timber income, earned income	3.5 FTE's
Leckmelm	£250-£500k PA	Yes	Building sales	3 FTE's
Makar	£3.5 million PA	Yes	Building sales	30 FTE's
North West Mull	£1.25-£1.5 million	Yes	SLF, Timber income, EU	3 FTE's

			Strategic Timber Fund, Tilhill	
Old Grantully Castle Angus Ross	- £130k PA	Some None	Firewood/Timber sales, misc. sales Furniture sales	Zero 3 FTE's
Scottish Wood	£350k PA	None	Timber sales	8 FTE's
Tayforth	No information	None	FCS, member fees	No information
Taynuilt	£40-£55k	Yes	Princes Trust, plant sales	2 FTE's
Woodshares	40% return on investment (logs to processed timber)	Yes	Share investment capital, timber sales	Zero

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