

Evaluation of Woodfuel East

Final
Report

February 2014

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Executive Summary

Executive Summary

Purpose of this report

This evaluation study has been commissioned by the Forestry Commission as a requirement of the Rural Development Programme for England. The purpose of this report is to deliver an independent assessment of the performance of the Woodfuel East Project, and to identify key lessons and propose practical recommendations for follow-up actions.

Introduction to the Woodfuel East Project

There has been supportive policy context for the development of wood energy as a source of renewable energy and in meeting national climate change targets. Developing the market for woodfuel also helps to create and maintain rural jobs as well as contributing to the sustainable management of woodland.

Potential was identified for the East of England to significantly increase production of woody biomass and benefit from growth in the market of wood for heat. However, the inadequacy of the woodfuel supply chain risked a market failure. The Woodfuel East Project was conceived as a necessary intervention to tackle the shortcomings across the developing woodfuel supply chain in the East of England, and in doing so, to grow the market for wood for heat.

The Woodfuel East Project, which ran from 2008-2013, received a Rural Development Programme for England (RDPE) grant of **3.28 million** as well as additional funding and in-kind support from the Forestry Commission. Its overarching aims and objectives were:

<i>Aim:</i>	To facilitate the development of a sustainable woodfuel supply chain in the East of England working in partnership with existing service providers and organisations and to build sustainable capacity within the sector.
<i>Objectives:</i>	<ul style="list-style-type: none">- To bring an additional 110,000 tonnes of green roundwood to market per annum by 2013- To bring 15,000 ha of currently unmanaged or under-managed woodland into positive management by 2013- To make carbon savings of 80,000 tonnes per year from 2013 by displacing oil

Woodfuel East sought to deliver its aim and objectives via a strategic investment support programme and various capacity building initiatives, including the provision of grants, training, advice and exhibitions to stimulate action at various points along the supply chain.

Woodfuel East was governed by a Steering Committee comprising 25 stakeholders and experts from the public, private and third sectors from across the region. The Project employed 4 staff

with additional staff capacity provided by the Forestry Commission. The Forestry Commission was also the 'accountable body' for Woodfuel East.

Robust procedures and tools were adopted to manage the project and report on progress. Specifically, Woodfuel East adapted the Leader Procedures Manual and added a number of additional tailored documents and forms.

During this time, various changes were made to the administration and remit of Woodfuel East. The Woodfuel East Project was able to respond and adapt effectively to changes without losing sight of its original aims. This demonstrates that the identified need for the Project, its strategic fit and design were well conceived.

Evaluation methodology

This evaluation study followed the principles of evaluation as set out in HM Treasury's Magenta Book. The evaluation utilised a project logic chain methodology, which outlined the assumptions built into the Woodfuel East project and employed a mixed-method approach to examine and test those assumptions.

The main activities used to collect evidence needed to answer the evaluation questions included desk research, consultations with project stakeholders and delivery agents (including advisory service providers and training providers), and interviews with beneficiaries (those who have been supported by the project) as well as those who submitted projects that, for various reasons, were not taken forward.

Key findings of the evaluation

Woodfuel East has spent a Defra grant of **£3,281,803** and secured **£3,583,977** of private sector investment. It delivered **120** projects of which 57% supported micro enterprises and 43% assisted woodland owners.

Woodfuel East's achievements included:

- An additional **114,584** green tonnes of timber bought to market annually as woodfuel
- **9882**ha of unmanaged / undermanaged woodland bought into positive management
- Total net carbon saving over the project's 5-year period of **387,293tCO₂e** in the non-traded sector, which equates to a cost saving of **£20,952,555**
- **36** jobs created, with the potential for further job creation
- **26** training courses delivered
- **76** advisory services delivered
- **£3,583,977** of private sector investment leveraged
- **£4,671,745** of GVA due to sales growth and increase in jobs. This equated to a ROI of **1.4:1** (created by net additional sales and jobs, assessed over the five-year period in GVA, per £1 of funding).
- The ROI ratio rises to **7.8:1** if the GVA from sales and jobs is combined with the total carbon abatement.

The findings of the interviews also highlighted the broader social (particularly education, health and wellbeing, community), environmental (wildlife, environmentally sympathetic techniques for extracting timber) and climate (increased use of renewable energy) benefits that had been achieved as a result of Woodfuel East bringing woodland into positive management.

Woodfuel East performed strongly against many of its targets, particularly in relation to carbon savings and green tonnes of timber brought to market. However, it created considerably fewer jobs than expected. Several other RDPE outputs were also narrowly missed, largely as a consequence of:

- *Problems with delivering through 3rd parties* – specifically in relation to the provision of training courses and advisory services
- *Lack of staff capacity* – owing to a much larger than expected level of Project bureaucracy
- *Project ‘drop out’* – a number of projects that did not go ahead for various business and / or financial reasons; in some cases grant monies were repaid.
- *Less demand for woodchip than expected* – however, the woodfuel log market increased exponentially. This led to Woodfuel East funding more and cheaper firewood processing equipment than expected

The findings of the interviews revealed that three quarters of grant recipients felt that interacting with Woodfuel East had helped them to think more strategically and / or commercially. Over 80% of grant recipients stated that they had achieved the targets they had set for their project. Respondents also experienced a range of additional outcomes, including:

- Positive interaction between woodland owners and the local community, leading to reputational benefits
- Increased morale and enthusiasm
- Increased business confidence
- Ability to pursue new business opportunities
- Greater appreciation of the wider benefits of woodland management

Subsequently, the majority of respondents believed that their project represented good ‘value for money’. The interviews provided evidence that Woodfuel East has been a multiplier for additional investment in the woodfuel supply chain in the East of England. Many respondents were keen to build on the opportunities that had been created by their Woodfuel East project.

There was a consensus that the facilitation service provided by Woodfuel East was a key strength of the Project. The support and knowledge provided by the BDAs was seen as being critical to the successful delivery of WESISP projects. Indeed, the interview findings present a strong case for providing a facilitation service to support uptake of future RDPE grants by the forestry sector.

The majority of respondents believed that ‘process’ and ‘bureaucracy’ were the key weaknesses of the Woodfuel East Project. The main complaint from interviewees was that the application forms were overly complex, difficult to understand, repetitive and intrusive. In some cases, problems in complying with procedure had caused some applicants to withdraw their projects. The bureaucratic nature of the Project’s processes and procedures was also highlighted during consultation with the Woodfuel East project team and the Forestry Commission. Dealing with administration was found to have consumed a significant amount of Woodfuel East’s resources.

In supporting the emerging woodfuel sector, the Woodfuel East Project has been viewed as a unique and visionary project. The Project has benefitted from a diverse and committed Steering

Committee comprising a strong partnership of public, private and third sector organisations working towards a shared vision. It has also been helped by an effective working relationship with EEDA and Defra. The Forestry Commission has played a critical and enabling role as the accountable body and host organisation, as well as providing valuable financial and in-kind support.

Recommendations

Recommendations below are offered to help inform future approaches to supporting the woodfuel sector. These have been developed in response to the findings of this evaluation study and in consultation with the Forestry Commission.

Build on the legacy of Woodfuel East

There continues to be a supporting policy context for woodland management, carbon abatement and economic growth. This Project has demonstrated the woodfuel sector's ability to provide positive impacts in these areas. The evidence within this evaluation report supports the notion that there is likely to be continuing benefits from further well-designed interventions. By building on the legacy and goodwill of this Project the impact of future programmes will be enhanced from the growing confidence and momentum now prevalent in the sector.

Ensure future programmes provide a facilitation service

The findings of this evaluation study demonstrate that an effective facilitation service is critical to channelling investment effectively into the woodfuel sector.

Encourage collaboration and cooperation

Collaboration and cooperation has the potential to lever in significant benefits. The provision of targeted support for collaborative projects should therefore be considered. For example, seed funding and investment in cooperatives and social enterprises operating at a landscape scale in creating a woodfuel supply chain. The involvement of communities, which is a key facet of the social enterprise movement, would help to raise awareness about the benefits of woodland management. This model could also result in significant carbon savings from displacing oil.

Supporting collaborative projects could also enable wider audiences to be reached as well as allowing useful data on woodland ownership to be collected.

Promote and facilitate networking

Providing opportunities for project beneficiaries and other stakeholders to network with others and share their experiences could increase levels of knowledge transfer and innovation across the supply chain.

Simplify the process

This evaluation study found that Woodfuel East's administrative procedures were overly complex and bureaucratic. Dealing with process proved time-consuming and challenging both for applicants and the project team. Project bureaucracy could be reduced by: giving project officials greater autonomy and flexibility to make decisions; amalgamating forms (i.e. concept and application forms); and streamlining the appraisal process. A simplified process would also help to maximise the efficiency of future projects.

Impact measurement

Future projects should establish and integrate a means of monitoring and evaluating the impact and benefit of the initiative from the outset. This would help to ensure the process for data collection for project management and evaluation is as efficient and effective as possible. Also that data is of sufficient quality to make robust assessments.

Chapter 1 Introduction

1.1 Background

There has been supportive policy context for the development of wood energy as a source of renewable energy and in meeting national climate change targets. Developing the market for woodfuel also helps to create and maintain rural jobs as well as contributing to the sustainable management of woodland.

Potential was identified for the East of England to significantly increase production of woody biomass and benefit from growth in the market of wood for heat. However, the inadequacy of the woodfuel supply chain risked a market failure. The Woodfuel East Project was conceived as a necessary intervention to tackle the shortcomings across the developing woodfuel supply chain in the East of England and in doing so to grow the market for wood for heat. The Project's overarching objectives were around increasing the volume of green tonnes of timber produced, bringing unmanaged and undermanaged woodland into positive management and achieving carbon savings.

The Woodfuel East Project, which ran from 2008-2013, received a Rural Development Programme for England (RDPE) grant of **£3.28 million** as well as additional funding and in-kind support from the Forestry Commission. Woodfuel East provided a strategic investment support programme and various capacity building initiatives. This included the provision of grants, training, advice and exhibitions to stimulate action at various points along the supply chain.

Over the Project period there were a number of changes that impacted on the design, remit, budget and management of the Project. These included the abolition of the East of England Development Agency and the transfer of RDPE administration to Defra, as well other changes to programmes in support of the sector.

1.2 Purpose of the report

This evaluation study responds to the requirements of the last phase of the Woodfuel East Project. The purpose of this report is to:

- deliver an independent assessment of the performance of the Woodfuel East project, paying particularly attention to the impact of the project actions against its objectives and targets
- identify key lessons and propose practical recommendations for follow-up actions.

This evaluation has been commissioned by the Forestry Commission as a requirement of the RDPE programme. The audience for the report is Defra, the Forestry Commission, the Woodfuel East project team and Steering Committee and other stakeholders and project beneficiaries.

Chapter 2 Project Description and Key Features

This chapter presents the background context in which the Woodfuel East project was developed. It describes the development of the project, including a worked logic model, and details the key features of project inception, implementation and delivery.

2.1 Context and strategic fit

The Woodfuel East Project was developed in the context of the strategy documents and research reports outlined in Table 1 below. Together, these documents provided a strong evidence base and supportive strategic and policy context for the use of woodfuel as a source of renewable energy to help meet climate change targets. Further priorities included bringing undermanaged woodland into production and stimulating the regional economy.

Table 1 Policy/strategic context to the Woodfuel East project

<p>The Regional Woodland Strategy (2003) 'Woodland for Life'</p>	<p>Outlines the case for increased use of renewable energy and the role of woodfuel in achieving this – RE1 'promote the use of wood for heat generation' (p.45). Highlights the need for a well-developed supply-chain for woodfuel. Through the accompanying action plan 3 reports were undertaken on the potential for woodfuel, technical issues involved and the market opportunities (Rippengal & Bright, 2001; Rippengal, 2003; Rippengal, 2005)</p>
<p>The Biomass Task Force (2005) and the Government's response (2006)</p>	<p>Support and stimulate the biomass sector and supply chain in England in support of renewable energy targets and sustainable farming and forestry and rural objectives.</p>
<p>Woodfuel Strategy for England (FC, 2007)</p>	<p>National Target - bringing to market an additional 2 million tonnes of biomass, annually, by 2020. This represents approximately 50% of the currently unharvested sustainable yield in English woodlands and saving 400,000 tonnes of carbon emissions annually.</p> <p>The strategy recommends actions in three areas (i) capital investment and support (ii) outreach and facilitation (iii) awareness raising.</p> <p>The strategy recognises different sources of woodfuel but concentrates on woodland that is currently under-managed - which could provide an additional 2 million green tonnes of woodfuel material in England.</p>
<p>The Climate Change Act 2008</p>	<p>Binds the UK to reducing Greenhouse Gas Emissions by 26 % by 2020 and by 80% by 2050. To achieve these targets, the overall plan to source 15% of the UK's energy from renewable sources by 2020 incorporates specific requirements to:</p> <ul style="list-style-type: none"> • generate in excess of 30% of the UK's electricity needs from renewables, including woodfuel • generate 12 per cent of the UK's heating needs from a range of renewable sources, including biomass (including woodfuel) <p>This climate change agenda is the ultimate driver for the projected growth in the scale of the woodfuel industry by 2020 and beyond (cebr, 2010).</p>
<p>The Renewable Energy Strategy (2009)</p>	<p>Around 30% of the UK renewable energy target could be met by biomass for heat and power, representing a huge growth opportunity</p>

Regional Strategies	Prior to their withdrawal in 2010, the East of England Plan (2007), and Regional Economic Strategy (2008) supported a stronger emphasis on responding to climate change, carbon reduction and in renewable energy generation.
Rural Development Programme Regional Implementation Plan	Renewable energy highlighted as a priority and a specific mention of woodfuel production.

2.2 Rationale for a Woodfuel East Project

In 2008 the Forestry Commission estimated that the East of England could increase its annual timber production by up to 250,000 green tonnes per annum (Forestry Commission, 2008). Although an increase of around 110,000 green tonnes per annum by 2013 was considered more achievable (Ibid.). The latter figure represented an increase of 50% on the then current wood production from the region. The increase would need to come from small undermanaged / unmanaged woodlands and the larger woodland estates which were not being managed to achieve their full potential timber output.

Although there was potential to increase the volume of timber for woodfuel in the region, and for the area to benefit from growth in the woodfuel market, it was concluded that the woodfuel supply chain was inadequate (Glynn, 2008; Forestry Commission, 2008). Therefore public sector intervention was considered necessary to facilitate the development of a sustainable supply chain for woodfuel and reduce the risk of market failure. This would require the following shortcomings in the supply chain to be addressed:

Lack of harvesting and processing capacity

Increasing production would require significant increase in the harvesting and processing of timber / roundwood. However, much of the existing harvesting capacity (in volume terms) in the Region was highly mechanised, and not widely applicable to smaller woodlands (Forestry Commission, 2008). On the processing side, spare capacity in the region for chip processing was limited; chippers tended to be transported long distances adding cost and increasing non-productive time (Ibid.).

Skills gaps

A fall in the skills capacity of the forestry industry was a further challenge. In the period preceding Woodfuel East, forestry work was found to offer below UK average wage levels and was commonly perceived as an unattractive career option (Glynn, 2007). Glynn observed skills shortages amongst forestry businesses in health and safety related skills, marketing sales and promotion skills and technical training including machinery operation and forestry management. The Forestry Commission recorded difficulties in the recruitment of new entrants and retention of existing workers as well as an increase in the average age of forestry workers (Heggie, 2001, Forestry Commission 2008). Glynn concluded that accredited and certified training was essential to raise skill levels and build confidence amongst an immature woodfuel supply chain (Glynn, 2007).

Structural barriers

The business case report for Woodfuel East (Forestry Commission 2008) theorised that the inherent structural properties of biomass supply chains limited their ability to respond positively to market signals. The need for capital intensive assets (i.e. for growing, harvesting, processing,

storage and distribution) and training and development would place prohibitive costs on businesses. Potential suppliers were characterised as being undercapitalised small and micro-enterprises which were either highly geared (often against personal assets rather than business assets) or non-profit-making businesses.

Glynn (2006) found that the forestry sector's ability to take advantage of business support mechanisms was hampered by:

- small businesses giving little time to business development (the focus being operations)
- a general disengagement with business support programmes
- difficulties in securing match funding for grant aided investment
- business investments financed through lease purchase or similar, as is common in the forestry sector, which are not eligible for many forms of public business support programmes

Financial barriers

Prior to the Woodfuel East Project, woodfuel was essentially a low value added product (Glynn, 2006). In particular, the typical prices being obtained were not sufficient to cover the costs of harvesting in small woodlands, or in woodlands where specialist equipment was required. Hence, the need to reduce or eliminate cost within the supply chain was paramount.

Finally, forestry stakeholders in the region recognised that the creation of a sustainable woodfuel supply chain would produce wider benefits. For example, the use of woodfuel from well-managed woodlands would provide a market pull for forest products and give landowners an incentive to manage their wood. Management of woodland would enable high quality products such as saw logs to be produced that could replace carbon intensive building materials. These have a higher value and are primarily processed within the region (softwoods only), with the consequent creation of local employment and wealth (Glynn, 2007; Forestry Commission, 2008).

2.3 Woodfuel East idea development and original objectives

The Woodfuel East Scoping Study (Glynn, 2007), comprised the views of a wide range of woodfuel practitioners and key stakeholders. The report of the study recommended that a woodfuel specific and time bounded project be created to oversee investment in the woodfuel sector, and to draw together awareness raising and promotional activities.

The Woodfuel East Project was conceived as a 5-year project to facilitate the development of a sustainable supply chain for woodfuel across the East of England and considerably increase the volume of quality woodfuel derived from woodland in the region. This would be achieved by supporting resource owners and growers and supply chain operatives.

We observed that references to Woodfuel East's outcomes, outputs, aims, objectives, and targets varied within the project documentation. The terms were used interchangeably and the wording was inconsistent. However broadly speaking they were:

Aim:

To facilitate the development of a sustainable woodfuel supply chain in the East of England working in partnership with existing service providers and organisations and to build sustainable capacity within the sector.

Objectives:

1. To bring an additional 110,000 tonnes of green roundwood to market per annum by 2013
2. To bring 15,000 ha of currently unmanaged or under-managed woodland into positive management by 2013
3. To make carbon savings of 80,000 tonnes per year from 2013 by displacing oil

Primary outcomes:

1. Contribution to regional GDP through economic activity – increasing the competitiveness of the region's forestry sector and value from jobs created
2. Increased human capital through an improved skills base
3. Improvement to the environment of the Region
4. Contribution to climate change targets through carbon savings

Outputs:

See Table 3 on page 16.

The Project was conceived with two main elements:

1. Woodfuel East Strategic Investment Programme (WESISIP) - capital investment in harvesting and processing machinery, storage and drying facilities and improved physical access to woodland for management and harvesting. This would be in the form of grants to woodland owners and microenterprises.
2. A wide-ranging and authoritative programme of awareness raising, promotion, facilitation and training to build capacity within the sector. This included the provision of support and advice, specialist advisory services and training and the linking of supply and demand via online searchable databases.

The focus was on the production of woodfuel, woodchip in particular, from virgin round wood sourced from sustainably managed woodlands in the East of England – namely the counties of Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk and including the unitary authorities of Luton, Bedford, Peterborough, Southend on Sea, Central Bedfordshire and Thurrock. Rural enterprises, specifically forestry and woodland owning farming businesses were the primary intended beneficiaries of Woodfuel East.

Logic Model

The HM Treasury's Magenta book - the UK Government's good practice guidance on how evaluation should be designed and undertaken (HM Treasury, 2011) - recommends utilising a 'logic model' to help identify the evaluation objectives and research questions which will direct the evaluation approach, and inform the types of data and information that need to be collected. Whilst a logic model was not drawn up at Woodfuel East's inception, an inferred logic model was produced to guide this evaluation (see Appendix 1). The model links the intended outcomes (both short and long-term) with the Project's inputs, activities and theoretical assumptions. It therefore describes the theory, assumptions and evidence underlying the rationale for Woodfuel East: i.e. that the intervention was designed to stimulate the market and build capacity amongst the supply

chain for woodfuel across the region to meet the predicted demand for biomass across the East of England and improve the competitiveness of the region's forestry sector through the sustainable management of woodland.

2.4 Approval of the project and project arrangements

In December 2008, the East of England Development Agency (EEDA) approved the Woodfuel East project application with strong endorsement and a grant of up to **£4,296,946** or 40% of eligible expenditure for the project. The Forestry Commission committed matched funding of £50,000 per annum. The total project eligible cost was envisaged to be approximately £10.6m over the 5-year programme (the balance being made up of private sector investments and funding from partners, either as cash or "in kind").

Governance

The Woodfuel East initiative was guided strategically by a Steering Committee, comprising stakeholders and experts from the public, private and third sectors in the East of England. The 25 members of the Steering Committee signed a Code of Conduct for members, which was issued at the start of the Project together with the Governance Guidelines. The Steering Committee was chaired by Mike Seville of the County Land and Business Association (CLA) and included representatives from EEDA and (subsequently) Defra.

Some members of the Steering Committee also sat on an Executive Committee to assist with day-day decision-making. A training panel comprising three Steering Committee members was set up to review training applications. See Appendix 2 for a list of members.

Accountable body

The Forestry Commission was the 'accountable body' for Woodfuel East. The Forestry Commission processed and paid the costs associated with the delivery of the project as well as the claims from projects before claiming these back from the Rural Payments Agency via Defra.

Staff

Woodfuel East staff members were employed by the Forestry Commission, which provided office space and support for the team at the East of England Offices in Santon Downham, near Brandon in Suffolk. The project team consisted of:

- Edwin van Ek (Project Manager)
- Sid Cooper (Business Development Adviser – BDA – for Essex, Suffolk and Norfolk)
- Phil Potter (BDA for Hertfordshire, Bedfordshire and Cambridgeshire)
- Diane Ellis (Administration and Finance Officer. Diane left Woodfuel East in June 2012 and was replaced by Stuart Grainger).

Two additional members of staff from the Forestry Commission (the Regional Director and Regional Development Advisor) were officially paid through the project to undertake project assessment and post payment checks, as well as undertake line management duties. Edwin van Ek took up his post in May 2008 and the rest of the project team took up their posts in the first quarter of 2009.

2.5 Changes made since the start of the project

Since Woodfuel East began as a regional project in 2008, there have been various changes to the strategic landscape that have impacted on the Project. EEDA was abolished in 2011 and Defra took over the administration of the RDPE grant. Subsequently, Defra announced a set of revised priorities for the RDPE (see Box 1) and new grant schemes in support of the forestry sector; namely, the Farming and Forestry Improvement Scheme (FFIS) and the Rural Economy Grant (REG). The Forestry Commission also launched a national Woodfuel Woodland Improvement Grant (WIG) as a component of the English Woodland Grant Scheme (EWGS). Woodfuel East flexed to complement new schemes, and in some cases was utilised as a delivery vehicle for these grants in the East of England. For instance, in the counties of the East of England Region, applicants for WIG access projects were referred to Woodfuel East and channelled through the WESISP application process. In 2012 Defra confirmed that all RDPE funding for FFIS forestry projects in the East of England would also be referred to Woodfuel East, which enabled Woodfuel East to support mobile sawmills. Woodfuel East also featured as a case study in the Forestry Commission's '2011- 2014 Woodfuel Implementation Plan'.

Box 1

Defra RDPE priorities:

- improvements in the competitiveness of the farming and forestry sectors;
- diversification of the rural economy and the quality of life in rural areas; and
- management of the community-led Leader approach.

Woodfuel East's continued alignment with government policy indicated that the identified need for the Project, its strategic fit and design was well conceived. Woodfuel East was able to respond and adapt without losing sight of its objectives. This is further demonstrated in the following paragraphs:

In the early phase of Woodfuel East, many potential applicants postponed investment in wood fuelled heating systems in anticipation of the Renewable Heat Incentive (RHI). In response to ongoing delays in the launch of the RHI, the Woodfuel East Steering Committee, with the agreement of EEDA, took the decision to expand Woodfuel East's capital grant programme to include grants for biomass boilers to stimulate the market for woodchip, which had not been growing as fast as expected. This resulted in the development and delivery of Woodfuel East's Boiler Installation Grant (WEBIG). Five installation projects went ahead with this grant, although much of the grant awarded was subsequently repaid once the RHI came on stream in November 2011. However, the Woodfuel East project team reported that experience of supporting biomass boilers had been extremely useful in building their knowledge of the design and operation of district heating installations. Subsequently, the team were able to share this learning with other applicants. Furthermore, it demonstrated that Woodfuel East was able to adapt its procedures and processes to offer a different grant scheme.

In 2009/2010 Woodfuel East also administered a small fund of £50,000 on behalf of Norfolk County Council to support the installation of small-scale wood-fuelled heating systems. However, this fund is excluded from this evaluation.

In 2009 the Steering Committee decided to include the provision of support for the wood fuel log (firewood) supply chain in meeting the objectives of Woodfuel East (Woodfuel East, 2009). This was in response to a perceived market failure in the supply of high quality wood fuel logs to meet a growing demand from the rising numbers of conventional domestic woodstove installations (Ibid.). However, woodchip continued to be the emphasis for Woodfuel East as a market constrained by the relatively low demand for woodchip from installed woodchip boilers.

In the first part of 2012, the Woodfuel East Steering Committee agreed with Defra to widen the geographical focus of Woodfuel East. As a result, Woodfuel East was expanded to include the East Midlands and parts of the South East. The factors that influenced this decision are outlined below:

- The aforementioned move of RDPE delivery to a national scheme implemented by Defra
- The amalgamation and restructuring of the Forestry Commission East of England region and East Midlands region
- That Woodfuel East has been contacted by a number of applicants based just outside the region and/or who owned woodland in the East of England and the South East and or Midlands. Many of the businesses with which the project was involved were found to procure timber from outside the region. This led the Steering Committee to conclude that the administrative boundaries of the old East of England Region were impractical.
- Recognition of the added value of Woodfuel East over other forms of RDPE funding; for example, the technical support and access to local networks provided by the Woodfuel East team benefitted potential applicants, particularly those new to the woodfuel supply chain and unfamiliar to quality standards and production processes.

There were also various changes to the Woodfuel East budget and outputs required. Following the original funding agreement (“the offer letter”) issued in December 2008, a further two revised offer letters (September 2011 and November 2012) were issued by Defra, which superseded each previous offer letter. The difference between the offer letters reflected the changes to spending profile by time and measure as the project progressed. The key changes are summarised below:

- Changes to and reallocation of budget under different measures within Axis 1 of RDPE and/or amalgamation of different budget lines to simplify budgeting
- Increase in grant rate to encourage more uptake
- Changes to the targets and outputs required for the project
- Reduction in training budget due to lower than expected number of training courses
- Reduction in advisory service budget due to lower than expected demand

Table 2 Headline changes to the grant offer:

Grant offer	Grant	Eligible expenditure
First Offer Letter December 2008	£4,296,946.00	40%
Revised Offer Letter September 2011	£4,239,581.00	48.40%
Revised Offer Letter November 2012	£3,594,839.00	49%

Changes to Woodfuel East outputs

As explained previously, Woodfuel East’s required outputs have changed since the beginning of the Project. Table 3 shows the changes that have been made and clarifies the outputs included in this evaluation. Notably, the original EEDA outputs are absent from the final offer letter. The Forestry Commission outputs, although not part of the official RDPE grant contract with Defra, have been included as agreed with the Evaluation Manager. Indeed, the Forestry Commission outputs are a key driver for their involvement with Woodfuel East.

Table 3 Woodfuel East outputs

Output	Total by December 2013			Included in this evaluation
	Offer letter 1, Dec 08	Offer letter 2, Sept 11	Offer letter 3, Nov 12	
EEDA OUTPUTS				
Jobs created	85			Yes as directed by the FC
Number of Businesses Supported	160			Covered in the RDPE outputs
Number of people assisted with skills development	320			Covered in the RDPE outputs
Private Sector Leverage (£)	£6.2m			Covered in the RDPE outputs
Carbon savings	80,000 tonnes			Covered in the FC outputs
Installed heat capacity per year	45 MW	Absent	Absent	No - Prior to EEDAs demise EEDA agreed that this would be not be included due to challenges in measuring this accurately
Energy production per year (GWH)	250 GWH	Absent	Absent	
RDPE OUTPUTS				
Measure 111 Vocational Training and information actions for persons engaged in the agricultural, food or forestry sectors				
Number of participants in training	880	800	536	Yes
Number of training days received	1770	1600	880	Yes
Measure 114 Use of advisory services by farmers and forest holders				
Number of farmers supported	245	Absent	Absent	No
Number of forest holders supported	490	253	133	Yes
Measure 115 Setting up farm management, farm relief and farm advisory services as well as and forest advisory services				
Number of new management and advisory services	1	1	1	Yes
Measure 121 Modernisation of agricultural holdings				
Number of business supported	Absent	32	26	Yes
Total Volume of Investments	Absent	£1,753,119.00	£1,331,687.00	Yes
Measure 122 Improving the economic value of forests				
Number of forest holdings supported under the project	56	15	18	Yes
Total volume of investments	£900,000.00	£377,852.00	£708,990.00	Yes
Measure 123 Adding value to agricultural and forestry products				
Number of business supported	Absent	128	77	Yes
Total volume of produce investments	£4,800,000.00	£3,891,118.00	£3,122,489.00	Yes
Measure 124 Cooperation for development of new products, processes and technologies in the agriculture, food and forestry sectors				
Number of cooperation initiatives supported	28	Absent	Absent	No
Measure 125 Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry				

Number of supported actions	175	40	26	Yes
Total volume of investments	£1,221,000.00	£281,256.00	£848,484.00	Yes
FORESTRY COMMISSION OUTPUTS				
Tonnes of green roundwood to market per annum as woodfuel by 2013	110,000			Yes
Carbon savings	80,000 tonnes			Yes
Unmanaged Woodland brought under management	15,000 ha			Yes

2.6 Project Implementation

Recruitment and set up

The official start date of Woodfuel East was 6th August 2008. Edwin van Ek, the manager of Woodfuel East took up his position at end of May 2008. During this intervening period the recruitment and the salary costs were provided by the Forestry Commission. The office set up and staff recruitment was completed during the first part of 2009, whereupon the two Business Development Advisors (BDA) and the Administration and Finance Officer took up their posts. The intention had been to recruit three BDAs but a lack of suitable candidates meant the third post could not be filled. The recruitment process confirmed that the predicted salary of the BDA was too low for the skill level required. This meant that the project ran with a team of 4 despite being designed to include a team of 5 staff.

The project was launched towards the end of 2008 with the 5 key elements:

- A marketing and awareness raising campaign
- Capital grants (the strategic investment support programme)
- Provision of subsidised advisory services for woodland owners
- Support for woodland and woodfuel training courses
- Linking of supply and demand

Marketing and Communications

Initial communications about the project included EEDA press releases in the autumn of 2008 followed by an official launch in November 2008. National TV and radio coverage followed, as well as coverage in the regional and local media. In addition, Steering Committee members and other partners helped to 'spread the word' through their corporate communications, including newsletters.

Communications materials developed during the first phase of the project included leaflets, brochures, banners and a website. A branded exhibition stand with display board and a marquee were procured for use at events. In addition, polo shirts, shirts and fleeces with the Woodfuel East logo were obtained for use at events and for meetings with clients.

During 2009/10 Woodfuel East procured independent communications advice to formulate and implement a communications strategy. This resulted in on-going features and articles in the regional and local press.

Throughout the project various additional communications materials were developed. For example, an information card to be distributed by woodstove suppliers and installers in the region; a photo library of images for use by the project; and a suite of case studies of successful Woodfuel East projects.

Capital grants – Woodfuel East Strategic Investment Support Programme (WESISP)

The first bidding round for the strategic investment support programme closed in December 2008. This saw 10 Expressions of Interest received and five full applications for grant funding. Subsequently, bidding rounds were held quarterly.

Woodfuel East has supported 120 projects with capital grants, out of a total of 204 applications received. These have supported the purchase of harvesting and processing equipment to produce and transport roundwood and woodfuel (logs and wood chip), storage and drying facilities, hard standing areas for seasoning roundwood, and access tracks into and within woodland (see appendix 3 for an detailed list of items funded). The Project also funded 5 woodchip boiler installations.

To be eligible for WESISP capital funding the applicant was required to be a woodland owner, or a micro enterprise producing woodfuel from virgin wood.

The rate of grant offered was up to 40% of eligible costs for stores and machinery/equipment and up to 60% for infrastructure projects.

Advisory Services

Woodfuel East provided the opportunity for third parties to offer subsidised advisory services to woodland owners. An advisory service included initial advice to woodland owners and occupiers of woodland on how to improve management of their woodland and a basic report on the woodland's potential and its capability to support the woodfuel supply chain. The aim of the advisory service was to provide the basis for more detailed management plans and suggest sustainable woodland management activities. These could then be funded under various schemes such as the Forestry Commission's English Woodland Grant Scheme; beneficiaries of advisory services could also apply for a Woodfuel East capital grant towards the purchase of new equipment.

Woodfuel East advisory services were undertaken by 6 different providers. A total of 76 reviews were carried out resulting in the production of 80 reports.

Training Courses

The aim of Woodfuel East supported training was to assist in the efficient co-ordination of the woodfuel sector supply chain, from landowners through to the marketplace for wood chips.

Woodfuel East subsidised training courses on production, storage, seasoning and moisture content as well as general training in woodland management. Training providers received 65 per cent of the cost of running courses with the remaining costs covered by course participants. In total 6 training providers ran 25 training courses for 156 participants. In addition, Woodfuel East ran a further training course, which was attended by 14 participants (total 26 courses and 170 participants). Training courses were either Open College Network (OCN) levels 2 or 3, or National Vocational Qualification (NVQ) level 2.

Market development

Woodfuel East developed an online 'market place' facility for timber to link supply and demand. A searchable supplier database was also made available on the Woodfuel East website featuring 140 service providers.

2.7 Project management and reporting

Woodfuel East has adapted the Leader Procedures Manual with annexes and added a number of additional documents and forms specific to Woodfuel East. This included a code of conduct signed by all Steering Committee members and accompanying governance guidelines for the Steering Committee.

The Woodfuel East Operations Manual set out the adoption of the following management processes:

- Quarterly Steering Group meeting
- Monthly Executive Committee Meetings
- Quarterly Progress Reports
- 3-Year Rolling Delivery Plan
- Mid Term Assessment (December 2010)
- Quarterly Claims to EEDA, and subsequently Defra

The manual also set out the various processes and procedures to be followed during the lifecycle of a project. The summary below provides an insight into the operational aspects of Woodfuel East projects:

Project development:

- *Expression of Interest* - meeting of high-level criteria on initial contact with the project
- *Concept development* - logging of ideas, testing eligibility and validating the project against Woodfuel East's aims and objectives, including an options analysis
- *Full application* - development of the preferred option. Submission of documentation and evidence i.e. Woodland Management Plan (woodland owners), Business Plan (micro enterprises)
- *Independent appraisal* - by a member of the Woodfuel East team or Forestry Commission Staff not previously involved in the project; this included checks on eligibility, supporting information provided, state aid compliance and a financial evaluation
- *Final Decision* - approval / rejection / referral

Approved projects:

For approved projects, the procedure for issuing funding is outlined below:

- Offer letter – drafted and independently checked, two signed copies sent along with Woodfuel East 'Guide to managing RDPE projects'
- Customer registration with Rural Payments Agency (a CReg16 RPA registration form is submitted as part of the application process)
- Claims – documentation (i.e. evidence of expenditure), progress reports
- Receipts and checking – against current offer letter, progress reports
- Authorisation of payment
- Payment letter

The operations manual also outlined procedures for dealing with special considerations and irregularities. It covered general monitoring and inspecting of projects to ensure fulfilment of objectives and compliance with the project's terms and conditions.

Over the course of Woodfuel East the operations manual was subject to a significant amount of revision and thus became a 'rolling' or 'working' document.

Steering Committee

The Steering Committee discussed and approved each project that had been appraised and recommended by the Woodfuel East project team. Project recommendations were formally signed off by the Chair of the Steering Committee before being forwarded to EEDA/Defra for final approval.

EEDA and Defra were represented on the Woodfuel East Steering Committee and party to discussion and decision-making about the Project. The Woodfuel East project team were required to submit various progress reports to EEDA / Defra, including a comprehensive 'mid-term review'. The team were also in regular contact with EEDA / Defra representatives. This ensured EEDA / Defra remained close to the Project, and that there were open channels of communication, enabling any issues to be adequately resolved.

Monitoring software

Woodfuel East was required to update its section of the RDPE online database (ROD) to record progress of the proposed projects and to provide a clear audit trail at all stages. However, only data relating to RDPE outputs and spend could be stored on ROD. Therefore other databases were created to house information related to other outputs.

A tailored financial management software package, known as 'Geodata', was produced for Woodfuel East. Geodata enabled income expenditure and matched funding to be tracked and management accounts to be produced to allow for a comparison of budgets and actual and forecast expenditure. Geodata also enabled the project team to set targets, monitor and report on the outputs achieved by Woodfuel East not recorded in ROD. Geodata was linked to the ROD database to allow the systems to be updated simultaneously, however, this led to various technical issues when the ROD system was updated.

In addition, the Woodfuel East Project manager also created a single spreadsheet to record grant committed.

Chapter summary and conclusions

The Woodfuel East Project was developed in the context of various strategy documents and research reports. Together, these provided a strong evidence base and supportive context for building capacity amongst the woodfuel supply chain in the East of England. This would help to stimulate the regional economy, bring undermanaged / unmanaged woodland into positive management and produce carbon savings by displacing oil.

Woodfuel East was conceived as a time bound woodfuel specific project to facilitate the development of a sustainable supply chain for woodfuel across the East of England and considerably increase the volume of quality woodfuel derived from woodland in the region. This would be achieved by supporting resource owners and growers and supply chain operatives through:

- Capital grants for harvesting and processing machinery, storage and drying facilities and improved physical access to woodland for management / harvesting
- Provision of support and advice, specialist advisory services and training

A 'logic model' was created for the Project retrospectively to show the causal relationships between the elements of the Woodfuel East Project. In accordance with the Magenta Book (HM Treasury, 2011), this was used to inform the development of evaluation objectives and research questions as well as the types of data and information that would need to be collected (see Appendix 1)

Woodfuel East was governed by a Steering Committee comprising 25 stakeholders and experts from the public, private and third sectors from across the region. Members signed a code of conduct and accompanying governance guidelines. The Project employed 4 staff with additional staff capacity provided by the Forestry Commission. The Forestry Commission was also the 'accountable body' for Woodfuel East.

Robust procedures and tools were adopted to manage the project and report on progress. For example, Woodfuel East adapted the Leader Procedures Manual and added a number of additional tailored documents and forms. Monitoring data was stored on the RDPE online database (ROD) and financial data was recorded in 'Geodata' (a financial management tool). The project manager also utilised a spreadsheet to record grant committed.

The Woodfuel East Project ran from 2008-2013. During this time, various changes were made to the administration and remit of Woodfuel East, including:

- adoption of new procedures following the transfer of the RDPE to Defra from EEDA
- changes to the Project's administrative boundaries
- expansion in providing support for boiler installations and investment in the woodfuel log market
- Alignment with Defra FFIS and Forestry Commission Woodfuel WIG grant schemes
- Amendments to the Woodfuel East contract reflecting changes to outputs and spending profile by time / RDPE measure as the Project progressed.

The Woodfuel East Project was able respond and adapt effectively to changes without losing sight of its original aims. This demonstrates that the identified need for the Project, its strategic fit and design was well conceived.

Chapter 3 Evaluation Approach

This evaluation of the Woodfuel East Project is consistent with the principles of evaluation as set out in the Magenta Book. Although the primary emphasis of the Magenta Book is on policy evaluation, its principles may be applied broadly to programme and project evaluation. Specifically, the evaluation followed a project logic chain methodology, which outlined the assumptions built into the Woodfuel East project and employed a mixed-method approach to examine and test these assumptions. Evaluation questions, data sources and methods of collection and evaluation indicators were developed in consultation with the Evaluation Manager and documented within an evaluation matrix.

The main activities used to collect the evidence required to answer the evaluation questions included desk research; consultations with project stakeholders and delivery agents (including advisory service providers and training providers); and interviews with beneficiaries (those who have been supported by the project); as well as those who submitted projects which, for various reasons, were not taken forward.

Given the nature of the programme and its overall objective - to increase the competitiveness of the region's forestry sector by developing a larger woodfuel supply chain than currently existed - the economic impacts were an area of focus for the evaluation. This included calculating the Return On Investment (a GVA to funding ratio), which is also the highest level of Value for Money (a 'VfM effectiveness ratio'). However, as agreed with the Forestry Commission, the evaluation took a more holistic view, and examined the wider benefits / impact of the Woodfuel East Project.

3.1 Evidence gathering

Desk Research

The desk research element of this evaluation included a review of secondary data including important national and regional strategic documents and research reports to build the context for the study and to contribute to the development of the logic chain (see chapter 2). The primary area of desk research involved documentary analysis to assess the depth and robustness of existing evidence with reference to the project-level evaluation questions. The programme data supplied by Woodfuel East was also analysed; this included a variety of documents relating to programme inception and development; projects processes and procedures; financial and monitoring data; and internal progress reports and delivery plans.

Interviews, surveys & consultation

The evidence base for this evaluation was built with interviews, surveys and consultations of 4 key groups:

1. Consultation with **key staff** and **partners** at strategic and operational levels i.e. Woodfuel East team members, Forestry Commission staff and Steering Committee members
2. Interviews with **20 project funding beneficiaries** (of which 15 were conducted face-to-face and 5 were telephone interviews) to evaluate the standards of service provided, and gather insights about the impact of the intervention. Interviewees were broadly stratified to ensure coverage of all interventions.
3. Telephone interviews with **20 unsuccessful project funding applicants** as a control group to support identification of the counterfactual position and deadweight effects.
4. Telephone interviews with **2 advisory service providers** and **1 training provider**

Towards the end of the Woodfuel East Project, the project team surveyed a sample of project funding beneficiaries on their experiences of Woodfuel East. Data from 15 of these surveys has been analysed as part of this evaluation study. The themes that emerged were subsequently explored in more depth during the interviews.

Three interview schedules were prepared; one for project funding beneficiaries, one for unsuccessful project funding applicants and one for advisory service providers and training providers. The questionnaires focused on the interviewees' experience of Woodfuel East; the achievements of the project; and any lessons which could be learned. The interviews were conducted in an informal, free flowing manner using mostly open questions to enable the collection of rich, insightful data. A total of 43 interviews were undertaken, each lasting between 30 and 45 minutes. The interview schedules have been included in Annex 3. Annex 4 details the interview sample.

Altogether views about Woodfuel East from 79 people have been fed into this evaluation project.

3.2 Ethics

The process of collecting the data required that the evaluation adhered to the codes of ethical practice outlined in the Magenta Book (HM Treasury, 2011); i.e. informed consent was sought and assurances given that data would be treated in a confidential manner.

3.3 Evaluation limitations

The Impact Evaluation Framework (IEF) guidance is clear that the scope and depth of an evaluation is limited by the time and resources available to conduct it and that the evaluators approach should achieve the most robust evaluation possible within the constraints placed on it (BIS, 2009). We believe this evaluation has been conducted on a sound basis and its conclusions are as robust as possible within the evaluation constraints. Resources for this evaluation have been relatively limited in comparison to the total Project spend; the number of individual projects funded; their scale and variety; and the evolving and complex nature of calculating the Project's impact and sustainability (Hughes and Niewenhuis, 2005).

As external evaluators, our view is that the evaluation carried out by Woodfuel East did not form an integral component of the overall Project design. This has meant that for the purposes of evaluation, the project data, and the form in which it was available, was found to have limitations. For example, it was not been possible to disaggregate data by year or obtain quantitative data about the projected impact beyond the 5-year project period.

Chapter 4 Woodfuel East Output Summary

This section provides an assessment of the reported outputs of Woodfuel East against its targets. It covers the RDPE outputs contained within the grant contract (i.e. the final Defra offer letter, November, 2012) and the Forestry Commission's required outputs. Although these do not form part of the grant contract, they were key drivers for the Forestry Commission's involvement in Woodfuel East, and hence were included in this evaluation.

Woodfuel East has delivered **120** projects (including 5 boiler projects). In some cases, beneficiaries undertook multiple projects; so in all there were **102** individual applicants. Of these **57%** were micro enterprises and **43%** were woodland owners.

Table 4 contains Woodfuel East's targeted and actual output figures. It also shows the percentage of target achieved.

Output description	Output target (Final Defra offer letter, Nov 12)	WFE Outputs	% of target
RDPE OUTPUTS			
Measure 111 Vocational Training and information actions for persons engaged in the agricultural, food or forestry sectors			
Number of participants in training	536	591	110
Number of training days received	880	693.5	78
Measure 114 Use of advisory services by farmers and forest holders			
Number of forest holders supported	133	76	57
Measure 115 Setting up farm management, farm relief and farm advisory services as well as and forest advisory services			
Number of new management and advisory services	1	1	100
Measure 121 Modernisation of agricultural holdings			
Number of businesses supported	26	27	104
Total Volume of Investments	£1,331,687	£1,581,163	119
Measure 122 Improving the economic value of forests			
Number of forest holdings supported under the project	18	30	167
Total volume of investments	£708,990	£876,544	123
Measure 123 Adding value to agricultural and forestry products			
Number of businesses supported	77	71	92
Total volume of produce investments	£3,122,489	£2,468,723	79
Measure 125 Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry			
Number of supported actions	26	24	92
Total volume of investments	£848,484	£643,038	76
FORESTRY COMMISSION OUTPUTS			
Additional tonnes of green roundwood to market as woodfuel by 2013	110,000	114,584	104
Annual carbon savings (tonnes)	80,000	96,823	121
Unmanaged Woodland bought under management (ha)	15,000	9,882.19	66
Jobs created	85	36	42

4.1 RDPE output summary

The following commentary provides details by RDPE Measure; how the output figures have been derived; and discusses performance against the targets.

Measure 111 Vocational Training and information actions for persons engaged in the agricultural, food or forestry sectors

The number of participants in training is the number of individuals who have received training through Woodfuel East. This was either:

- a training course delivered by Woodfuel East
- a training course subsidised by Woodfuel East, or
- training provided by the BDAs in face-to-face meetings. Defra had agreed that the time BDAs spent advising applicants during face-to-face meetings could be counted as training. Subsequently, the BDAs recorded their time delivering this type of training in their daybooks.

The 'number of training days received' refers to the amount of training days received by all participants. A training day was considered to be an 8-hour day. Where training was provided by the BDAs through face-to-face meetings, this has been calculated on a pro-rata basis.

Woodfuel East exceeded their target for the number of people in training; this was mainly because of the training the BDAs delivered to individual applicants. This was deemed essential to ensure effective uptake of the grant scheme. However, Woodfuel East recorded 22% less training days than the original target.

Consultation with Woodfuel East staff and the findings of the interviews with the external training providers highlighted several difficulties that could explain this underperformance:

Problems with delivering through external training providers

Woodfuel East experienced problems with several external providers not delivering. There were also delays with training courses coming on stream and this impacted on the amount of training that could then be delivered within Woodfuel East's timescales.

Process

The external providers interviewed found the application and claims process extremely challenging, which impacted on the time they had available to deliver courses. One training provider underwent an inspection by the Rural Payments Agency. He found this a distressing experience and it put him off applying to run further courses.

A further example of how 'process' inhibited the delivery of training included the redesigning and condensing of a 5-day training course into 3 days following a lack of uptake and the subsequent gathering of feedback from would-be trainees. The lengthy and complex processes involved in this meant that delivering the final course was delayed by one year. This also had a detrimental impact on the provider's enthusiasm for delivering training with Woodfuel East.

Notably the larger organisations which provided training courses were better able to deal with the process than the smaller training providers.

Lack of promotion of training courses

In the experience of the training provider interviewed, there was demand and need for the type of training that was subsidised by Woodfuel East. However, he felt the courses were not widely and effectively promoted to potential beneficiaries. This was despite courses having been marketed online and through Steering Committee members' organisations as well as details circulated to all WESISP applicants.

Funding restrictions

Woodfuel East funding did not cover course development. Neither did it provide for the assessment for trainees to receive accreditation. The associated additional costs may have prevented potential training providers and trainees from engaging with the programme.

Lack of training courses delivered by Woodfuel East

In the original project design, the intention was for Woodfuel East to develop and deliver its own training courses. However, these training courses did not materialise, as there was insufficient staff capacity owing to a much larger than expected level of Project bureaucracy. In addition, the team received a higher number of applications for smaller amounts of grant funding than expected, which also took more time than anticipated. Furthermore, at the start of the Project the intention had been to recruit 3 BDAs, whereas the Project ran with only 2 BDAs. As a result of this lack of capacity Woodfuel East was only able to develop and deliver 1 formal training course.

Provision of face-to-face training to individuals

This was a time and resource intensive means of delivering training, although deemed necessary and valuable to ensure uptake of the WESISP. Indeed, the interviewees expressed their highest regard for the knowledge and support provided by the BDAs, and many stated that they would not have undertaken their Woodfuel East project without this. However, it did impact on the amount of training days received by all participants. With the BDAs time taken up through face-to-face training there was less time available to the BDAs to run training courses, as had been original intention.

However, there was extremely positive feedback on the training that was delivered. The training provider interviewed confirmed that all participants went on to pass an assessment and achieve accreditation. He also commented on the networking that took place amongst trainees. There was equally positive feedback on the training provided by the Woodfuel East BDAs. The training provider believed that Woodfuel East could have successfully supported more courses. However, in his view, this would have depended on more effective promotion and marketing of the training courses, and a simplified contractual process with Woodfuel East.

Measure 114 Use of advisory services by farmers and forest holders

The 'number of forest holders supported' refers to the number of woodland owners who used advisory services for the improvement of the overall performance of their activity, and who received support from Woodfuel East to meet the costs involved with this use.

The main reasons for Woodfuel East underperforming in this area relate to several providers failing to deliver the number of advisory services they had specified. Some providers had their contracts terminated for non-delivery. One provider withdrew from the project and, while replacement providers were secured, this caused a significant delay. Another provider folded their business and was therefore not able to deliver. There were also examples of providers that did not claim for advisory services they undertook.

At the start of the Project, there was discussion with Anglia Woodfuels – a cooperative group facilitating the use of woodfuel in the region – regarding their potential submission to run an umbrella service and procure third parties as accredited advisory service providers. Whilst this could have proved an effective and efficient means of delivery, the application failed to materialise.

The advisory service providers interviewed as part of this evaluation commented that the scheme had been successful in encouraging woodland owners to manage their woodland and enter into the woodfuel market. It also helped facilitate their engagement with the Forestry Commission through the preparation of an initial Woodland Management Plan. Indeed, these woodland owners are likely to benefit from on-going positive engagement with the Forestry Commission through increased access to funding and support as well as opportunities for learning and development. Several providers found that undertaking an advisory service had led to additional work supporting woodland owners.

However, service providers felt that the scheme was under utilised. They commented on the difficulty of reaching owners of smaller and undermanaged woodlands, who had no previous engagement with the Forestry Commission and / or other organisations. The interview findings suggested that promotion of the scheme could have been improved; there seemed to be some confusion regarding who was responsible for marketing the scheme.

Measure 115 Setting up farm management, farm relief and farm advisory services as well as forest advisory services

The number of new management and advisory services refers to the creation of Woodfuel East, which was successfully achieved.

Measure 121 Modernisation of agricultural holdings

The ‘number of businesses supported’ is the recorded number of businesses that had capital projects funded under that measure. Woodfuel East exceeded the target by 1, resulting in 27 projects being supported under this measure. However, the total volume of investments was larger than budgeted. This was mainly due to estates investing in larger storage facilities than expected.

Measure 122 Improving the economic value of forests

The number of forest holdings supported under the project refers to the number of individual woodland holdings supported under that measure. As one grant scheme encompassed two woodland holdings, the 30 holdings supported correlates to 29 ‘woodland owners’ supported under this measure. Woodfuel East exceeded this target by 67%. The team reported a surge of interest in obtaining capital grants under this measure following implementation of the Renewable Heat Incentive (RHI). These were mainly in relation to on-estate woodfuel projects, either self-supply projects or to maximise commercial opportunities of woodland.

Measure 123 Adding value to agricultural and forestry products

‘Number of businesses supported’ – refers to the number of businesses that received support for the tangible and/or intangible investments they made to improve the overall performance of the business, to improve the processing and/or marketing of their forestry products, or to enhance the development of new products. Woodfuel East under-achieved their target by 6%. Whilst the Project team received sufficient numbers of applications to achieve the output target, there were

a number of projects under this measure that did not go ahead for various reasons. For example, one applicant purchased specialist equipment but was unable to find suitably trained machine operators and thus decided to repay the grant. Several applicants felt their business model was unsatisfactory and lacked the confidence to proceed, especially in the current economic climate.

The total of volume of investments was also less owing to the fact that Woodfuel East received more applicants for smaller amounts of grant funding than had been anticipated. These were mainly for firewood wood fuel log processing equipment.

Measure 125 Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry

‘Number of supported actions’ refers to the number of supported operations that are related to access to woodland. Woodfuel East supported 25 actions, 1 less than the ‘26’ target figure. These projects could generally be categorised into basic access tracks to smaller woodlands and the higher spec ‘roading’ and ‘hardstanding’ projects undertaken by estates as part of the development of an internal woodfuel supply chain. The latter projects tended to be complex and expensive, and the rising costs of some of these projects led to an overall fall in the grant intervention rate.

The total volume of investments was lower than expected. Due to the complex and time-consuming nature of these projects, which often necessitated the involvement of external agencies (i.e. planning authorities, highways agency etc.), several applicants decided to withdraw their projects.

4.2 Forestry Commission outputs

Additional green tonnes of timber per annum by December 2013

The Woodfuel East project has recorded additional green tonnes of timber brought to market per annum over the duration of the project. The additional green tonnes of timber brought to market was forecast for each approved project and included in every Woodfuel East Strategic Investment Support Programme (WESISP) offer letter as outputs. As part of the grant application process green tonnes of timber brought to market were forecast with and without Woodfuel East intervention to ascertain Woodfuel East’s additionality. The figures were recorded in the Woodfuel East database. The data demonstrates that Woodfuel East will have brought an additional **114,584** green tonnes of timber to market by Dec 2013, representing 4.5% above the original target of 110,000. This could be due to the higher volumes being achieved from undermanaged woodlands.

The figure for ‘additional green tonnes of timber brought to market by Dec 2013’ has been used to calculate the carbon savings achieved by Woodfuel East, as well as the area of woodland brought into management. This is explained further below:

Carbon savings

The project has assumed that tonnes of CO₂ produced per GWh for wood and oil are 5 and 35 respectively. The project has also assumed that each tonne of green timber when seasoned to 30% and processed to woodfuel produces **0.00245** GWh of energy and thus **0.012** tonnes of CO₂ (i.e. 0.00245 x 5). Using oil for the same energy produces **0.857** tonnes of carbon. This

Table 5 Co2 for different fuels

Fuel	Co2 / GWh
Oil	35
Wood	5

(FC ref; Bioenergy Centre, 2013).

represents a carbon saving of **0.845** tonnes for each green tonne of timber used as woodfuel as a substitute for oil (i.e. 0.857 - 0.012).

Woodfuel East has bought an additional 114,584.00 tonnes of green roundwood to market as woodfuel, thus achieving CO₂ savings of **96,823.48** tonnes by displacing oil.

The 0.845 tonnes CO₂ saved per green tonne of timber used as woodfuel was adopted after the project was underway. It was not the factor used to calculate the original target of 80,000 tonnes of carbon saved. Having been unable to find the workings for the original target it is difficult to compare the target and outputs figures and comment on the project's performance in this regard.

Unmanaged woodland bought into management

The area of unmanaged woodland bought into management has been calculated using Forestry Commission data from felling licence applications in the East of England between 2009-2013. From this data Woodfuel East calculated an average volume per hectare (ha) of 46.38 m³, which is equal to 46.38 green tonnes (Van Ek, 2013). The area of unmanaged woodland bought under management has been calculated as follows:

114,584	X	4	/	46.38	=	9882
Additional green tonnes of timber/annum by Dec 2013		The effective project period		Green tonnes of timber / ha		Area of unmanaged woodland bought under management (ha)

It was decided that the use of felling licence data would be the most accurate method of determining area of woodland bought under management as felling licence applications contain the estimated volume/ha stated by applicants. Using a standard thinning control methodology may be misleading, as it could only assume an average Yield Class and would not account for differences in Yield Class between stand types etc. It was also identified that initial works to undermanaged woods was realising a higher initial yield than thinning control methodology would indicate. Applying thinning control methodology could, therefore, lead to an overestimation of the area of woodland brought into management.

Forestry Commission management plan data shows that the woodland owners supported by Woodfuel East have a combined woodland holding of 7,000 ha. Since only a proportion of this area would actually be worked in the 5-year timescale of Woodfuel it has not been possible to use this data accurately in the estimations. However, it suggests that certainly over the longer term, the area Woodfuel East has brought into management is likely to increase significantly.

Jobs created

The number of jobs created was forecast for each project and included in each WESISP offer letter as outputs. According to the ROD database the Project has led to 36 jobs being created, which is an underachievement on the original target of 85 jobs. However, data collected by the Forestry Commission (Tubby, 2013¹) indicates that every 2000m³ / green tonne of wood equates to 1 job.

¹ Figures compiled by Tubby (2013) based on own research and data from DECC, 2011 and NNFFCC, 2012.

This suggests that the original target of 85 jobs created was overly ambitious and the creation of 57 jobs would have been a more realistic target. Even so, Woodfuel East has not achieved the level of job creation expected.

However, the interview findings suggest that Woodfuel East's interventions have generated additional work in the woodfuel supply chain. Forestry contractors have reported that the Project has enabled them to become more productive, expand into new markets and grow their businesses at a rate that would have not been possible without Woodfuel East's intervention. Many feel confident that their businesses will continue to grow and create jobs in the future, especially given an increasing demand for renewable energy and the rising price of oil. It is therefore perhaps too early to judge Woodfuel East's performance in relation to job creation.

The interviews provided evidence that some forestry roles are far more secure as a result of the Project. Several estates had a history and tradition of employing forestry workers, many of whom were long standing employees. Developing the estate's internal woodfuel supply chain, and in some cases realising commercial opportunities from woodland, had increased the value of an estate's forestry workers. Interviewees reported that, prior to Woodfuel East's intervention, they felt it would have been cheaper to hire forestry contractors; now directly employing people was easily justifiable. Increased morale and job satisfaction amongst forestry employees, who felt they were making a significant contribution to the efficient running of the estate, was also reported. A significant number of micro-businesses interviewed also commented that jobs in their business were more secure, following their Woodfuel East project.

4.3 Woodfuel East Project financial summary

Woodfuel East has spent a Defra grant of **£3,281,803**. This is £313,036 less than the grant amount offered by Defra in the final offer letter. This underspend can be attributed to:

- Several self-supply projects that were delayed in the financial year 2012/13 due to the postponement of the Renewable Heat Incentive
- Applicants withdrawing projects due to their ability and /or willingness to invest
- Less demand for woodchip than expected, although the woodfuel log market has increased exponentially. This has led to Woodfuel East funding more and cheaper firewood processing equipment than expected (rather than large and expensive chippers)
- Examples of the repayment of Woodfuel East grants

Woodfuel East has secured **£3,583,977** of private sector investment, which is less than budgeted due to reduced spending overall. However, Woodfuel East achieved a slightly lower grant intervention rate than forecast – 47.6% as opposed to 49%. This occurred because a number of projects cost more than expected. These increased costs were deemed eligible costs, hence the intervention rate reduced. This was required by EEDA/Defra to ensure that the receipt and bank statements corresponded with the amounts used in the claim forms.

Tables 6 and 7 below reproduce the costs of the Project at the final claim by the Forestry Commission to Defra dated 31 January 2014.

Table 6 Grant Funding

	Defra Budget	Actual	Variance
Capital Grant	£2,769,985.00	£2,467,312	£302,673.00
Revenue Grant	£824,854.00	£814,491	£10,363
Total Grant	£3,594,839.00	£3,281,803	£313,036

Table 7 Eligible Costs

	Defra Budget	Actual
Eligible Costs (Capital)	£6,419,153	£5,925,138
Eligible Costs (Revenue)	£954,189	£940,642
Total Eligible Costs	£7,373,342	£6,865,780
Grant	£3,594,839	£3,281,803
% Grant to Eligible Costs	49.00%	47.8%
Match funding	£3,778,503	£3,583,977

4.4 Economic assessment

The financial investment in Woodfuel East has led to a number of streams of activity that have generated further economic benefits. This section of the evaluation provides estimates of the contribution of the Project over its 5-year timescale to:

- gross value added from employment and sales
- value of carbon savings from substituting fossil fuel use
- commentary on other economic effects deemed significant

The analysis has utilised data collected by the Woodfuel East project team and official secondary data in the form of ONS datasets. Project data has been based on average delivery across an unspecified 5-year period as set out in the grant contract terms for projects. The calculations have therefore used a 5-year term for producing an estimate of the Project's return on investment (ROI). Further significant benefits post this 5-year period are expected but are only included as commentary within the confines of this particular evaluation.

In assessing the economic performance of Woodfuel East it was essential to take account of various factors in translating the Project's gross outputs and outcomes into their net additional equivalents. These factors included:

- **Deadweight:** the proportion of Woodfuel East's total outputs/outcomes that would have been secured anyway (i.e. non-additionality).
- **Leakage:** the proportion of outputs / outcomes that benefit those from outside the target area of Woodfuel East (i.e. beyond the stated spatial parameters of the Project.)
- **Displacement:** the proportion of outputs / outcomes that result in reductions in activity elsewhere as a result of the intervention.
- **Local Multiplier:** the effect of the input into the local economy of the revenue generated from the intervention.

Jobs created

Woodfuel East led to 36 jobs being created. This analysis assumes that each job will be maintained for the whole of the 5-year contract period and that the value added from these positions is akin to the average Gross Value Added (GVA) per worker for the sector.

Issues of additionality will affect the gross number of jobs created. Using the findings from a Defra commissioned report into the impact of LEADER projects within the RDPE (Ekogen, 2011), it has been possible to create a net figure consistent with other comparable projects. The Ekogen report developed a net total adjustment to the gross figure for the agriculture and forestry sector having factored in issues of displacement, leakage and deadweight and applied a positive local multiplier of 1.1. The resulting net total was calculated as 80% of the original gross figure. Applying this gross to net adjustment to Woodfuel East leaves **28.8** net jobs created.

It is evident that wood energy will mostly displace oil meaning this is a substantive displacement. It has been assumed that the oil companies are generally located outside of the East of England and would also retain profit levels. However, the shift to woodfuel may impact on employment (and thus GVA) in oil distribution.

The GVA for jobs created has been calculated by multiplying net employment gain by average GVA per filled job for the sector over the 5-year timespan. This has resulted in a figure of **£4,695,432** of additional GVA. If the target for the project had been achieved, Woodfuel East would have created over £10.5m worth of additional GVA from job creation.

28.8	X	30,891	X	5	=	£4,448,304
Net jobs created by Woodfuel East		GVA of £30,891 per worker (FTE) in the Agriculture, forestry and fishing sector (ONS, 2013)		Across 5 years		Additional GVA

Timber sales

Woodfuel East has produced an additional 114,584 green tonnes of timber per annum based on the forecast for each approved project over the 5-year contract period. The value of the timber has been estimated in terms of GVA by applying the ONS figure £0.39 for each £1 of turnover in the sector (ONS, 2013).

Issues of additionality will affect the gross timber sales forecast by the Project, for example, i.e. the proportion of the 114,584 green tonnes of timber that would have been brought to market anyway (deadweight). We have utilised the findings of the interviews together with information pertaining to background to Woodfuel East to estimate the impact of deadweight.

Of the projects that did not go forward, 50% of interviewees went on to progress their project in some form. It is fair to assume that increasing demand from a growing market, that is in part attributable to elevating levels of public awareness of climate change, would have maintained a level of confidence and investment. Behaviour change in favour of biomass and woodfuel is also being driven by perceptions of woodfuel as a more affordable solution for rural communities and an increasing desire for homes that are efficient and utilise more environmentally friendly ways of providing heat. Furthermore, utilising local produce and resource whilst protecting rural skill-sets has become a cornerstone of local economic development in rural areas.

Respondents were certain that the rate and scale of the growth they were able to take forward was considerably less than if they had received a Woodfuel East grant. Similarly, the grant

recipients interviewed reflected that Woodfuel East intervention had enabled them to shift their business forward considerably. There was a general awareness of the failings in the market and the role of Woodfuel East in stimulating the supply chain. Given these factors, we have assumed a gross to net adjustment of 20% - i.e. that 20% of the growth in timber sales per annum would have occurred without any intervention from Woodfuel East.

There is no evidence of leakage and displacement. Woodland owners interviewed were clear on the place of woodfuel and woodland management within their business plans and investment in these elements was contained. The beneficiaries of Woodfuel East were clearly within the regional area defined for the Project. Thus leakage and displacement was assumed to be negligible and was discounted in the calculation.

It has been assumed other local suppliers have benefitted from increased flow of turnover through local businesses. A standard local multiplier of 10% has been applied but may be conservative given the tight-knit communities and the extended rural nature across a number of the Woodfuel East projects.

In the absence of actual turnover figures, tonnes of additional green timber brought to market were used in the GVA calculation. The standing value of £13.93 has been adopted which is the most recent average price for coniferous standing sales (per cubic metre overbark standing; where the purchaser is responsible for harvesting), most likely to enter the woodfuel market (Forestry Commission, 2013). This figure broadly accords with unofficial statistics on timber sales gathered in the East of England region (Mumford, 2013; Battell, 2013). However, using the average price for coniferous standing sales assumes that each cubic metre of produce is the same grade, which is unlikely to be the case. A proportion of the additional timber harvested as a result of Woodfuel East is likely to be of a higher grade, thus rendering this a conservative estimate.

Based on net sales of **91,667 green tonnes** (114,584 – 20% potential deadweight) of standing coniferous timber per annum, an additional **£2,738,996** of GVA was created within the 5-year period of the project.

91,667	X	13.93	X	5	X	0.39	X	1.1	=	£2,738,996
Additional net green tonnes of timber brought to market per annum by Woodfuel East		Most recent average price for coniferous standing sales (m ³) (Forestry Commission, 2013)		Across 5 years		Each £1 of turnover in the Agriculture, forestry and fishing sector contributed £0.39 to GVA (ONS, 2013)		Local Multiplier		Additional GVA

The two totals of GVA from jobs and timber sales cannot be viewed as unrelated. Employment growth can only occur if there is a projected increase in sales as the result of an intervention. Simply aggregating the amounts of GVA due to sales increases and jobs introduces the possibility of double counting. According to Forestry Commission and DECC figures, each job in the agriculture and forestry sector equates to 2000 green tonnes of timber brought to market (Tubby, 2013). This allows an estimation to be made of the amount of jobs in total it would take to deliver the gross timber yield per annum as indicated by the project.

114,584	X	5	/	2000	X	5	=	57.5	38	/	57.5	X	100	=	66%
Gross tonnes of timber brought to market over project contract length				Tonnes of wood per job over same time period (Tubby, 2013)				Jobs in total			Jobs created				Double-counting

However, a 66% adjustment figure for double counting does not take into account that the purpose of Woodfuel East was to develop the supply chain to prevent market failure. Therefore the proportion of labour required in removing structural and financial barriers, building capacity through skills, developing collaboration and increasing the sharing of experience and knowledge while improving the lack of harvesting and processing capacity would have been significant. On balance, an adjustment of 35% has therefore been applied.

£4,448,304	+	£2,738,996	X	0.65	=	£4,671,745
Additional GVA from net employment growth		Additional GVA from net sales of timber		Duplication between jobs and timber sales		Net total of GVA due to sales growth and jobs increase

Aggregating the GVA created by net additional sales and jobs, assessed over the five-year period, per £1 of funding has produced a ROI ratio of **1.4**.

£4,671,745	/	£3,281,803	=	1.4
Net total of GVA due to sales growth and jobs increase		Total RDPE grant		ROI ratio

Carbon savings

The project has enabled the substitution of fossil fuels with woodfuel for heating properties in the East of England. Over the five year contracted period of the project this has resulted in a highly significant reduction in carbon emissions in the area.

Woodfuel East has assumed a saving of 0.845tCO₂e per tonne of timber brought to market. Using the net total of timber projected during the Project's 5-year contract period the carbon saving is estimated to be **387,293tCO₂e**.

91,667	X	0.845	X	5	=	387,293	X	£54.10	=	£20,952,555
Net timber per annum				Over 5 years		tCO ₂ e		Non-traded £/tCO ₂ e as per project start date		

The carbon saved during the project period is considerable and delivers abatement against UK targets in the non-traded sector at a very cost effective price. Each tonne of CO₂e has been delivered at a cost of £8.47 tCO₂e in comparison to the non-traded price of £54.10. This cost has

concurrently delivered numerous other benefits including the return in GVA. The ROI by comparing the total investment with the carbon saved is **6.4**.

Other factors

There are numerous other factors within the Woodfuel East Project that could elevate both the ROI from GVA and the carbon savings.

Timescale

This financial evaluation has drawn its core conclusions from the 5-year project contract timescale. The benefits identified will impact beyond this term. The project was conceived as a necessary intervention to tackle the shortcomings across the new woodfuel supply chain in the region. The capacity and capability of the supply chain has been significantly strengthened while also delivering immediate return in GVA growth and carbon reduction. An improved supply chain demonstrates the on-going viability of the sector to continue to deliver the enhanced capacity and improve on this position.

Skills

Unacknowledged within this evaluation has been the contribution that Woodfuel East has brought by subsidising 25 accredited training courses. This has resulted in the up-skilling of 156 participants to Open College Network levels 2 and 3 and National Vocational Qualification Level 2. Data on wage uplift as a result of gaining additional qualifications is not available and it is not possible to estimate of additional GVA from training activity. However, it is likely that there will have been a positive impact. Indeed, the Leitch Review of Skills found a link between the productivity of staff and their skill level - staff with higher levels of skills are more productive than those of lower skills and consequently produce higher output and receive higher wages than their less skilled equivalents (Leitch, 2006).

Improved woodland asset base

The Project's overarching objectives were around increasing the volume of green tonnes of timber produced, bringing unmanaged and undermanaged woodland into positive management and achieving carbon savings. This element of the assessment has examined the economic benefits of timber produced and the carbon savings. Against RDPE output measures 121 (modernisation of agricultural holdings) and 122 (improving the economic value of forests) the project has overachieved. Over £700,000 has been invested into the latter measure; these investments reinforce the principle of economic gains beyond the boundary of the project.

The conservative estimate of 9882ha of unmanaged woodland brought into management will provide increased financial benefits as assets to each owner. Additional benefits from management include higher value timber with the potential for use as saw logs or for furniture manufacture or flood alleviation, as well as bringing biodiversity benefits and other ecosystem services gains.

Chapter summary and conclusions

Woodfuel East has spent a Defra grant of **£3,281,803** and secured **£3,583,977** of private sector investment. It delivered **120** projects of which **57%** supported micro enterprises and **43%** assisted woodland owners.

Woodfuel East performed strongly against many of its targets, particularly in relation to carbon savings and green tonnes of timber brought to market. The quality of support provided by the BDAs was highlighted as a particular strength of the Project. However, it created considerably fewer jobs than expected.

Several other outputs were narrowly missed, largely due to:

- Problems with delivering through 3rd parties – specifically in relation to training provision and advisory services
- Lack of staff capacity owing to a much larger than expected level of Project bureaucracy
- Drop out - there were a number of projects that did not go ahead for various business and / or financial reasons, and in some cases grant monies were repaid.
- Less demand for woodchip than expected, although the woodfuel log market has increased exponentially. This led to Woodfuel East funding more and cheaper firewood processing equipment than expected

The economic assessment of Woodfuel East concluded that the Project created a net total of GVA of **£4,671,745** due to sales growth and increased jobs. This equated to a ROI (created by net additional sales and jobs, assessed over the five-year period in GVA, per £1 of funding) of **1.4/1**.

The total carbon saving during the project 5-year period is estimated to be 387,293tCO₂e in the non-traded sector, which equates to a cost saving of **£20,952,555**. Thus, combining the return from sales and jobs in GVA with the total carbon abatement during the period, a headline ROI of **7.8/1** is achieved.

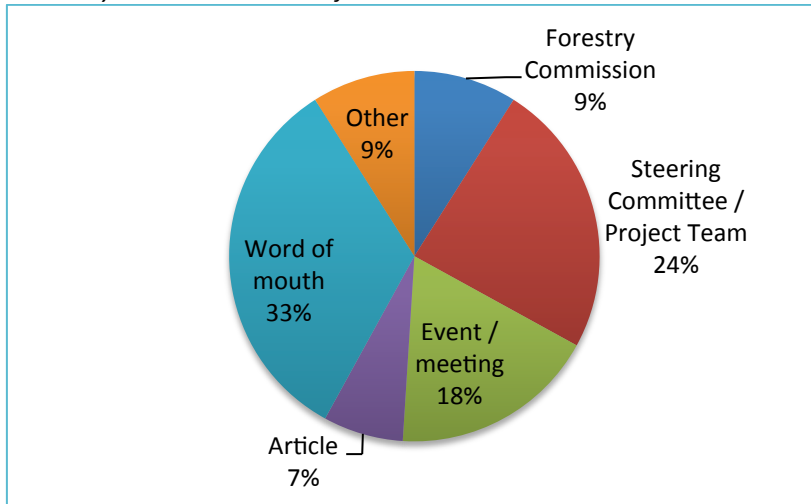
Several other elements, including the building of capacity and capability in the sector, longer term carbon savings, sustainability of the initial gains and the improvement of woodland assets with their associated gains in improved ecosystem services, add further returns to this strong performing project.

Chapter 5 Primary research findings

This chapter presents the findings from the primary data collected as part of this evaluation of Woodfuel East.

5.1 Marketing and promotion

How did you hear about Woodfuel East?



Around half of those interviewed and surveyed heard about Woodfuel East as a result of communications activities undertaken by the Project. Some had met the Woodfuel East team at events and meetings (mainly 'Essex Young Farmers' 'Anglia Woodfuels' and Royal Forestry Society events) and several had noticed press and journal articles about Woodfuel East. A good proportion were existing contacts of the Project Team and Steering Committee and had been alerted to Woodfuel East. These personal contacts proved an effective way of promoting the Project and helped to ensure that trust and enthusiasm for potential projects was there from the beginning.

Several people had proactively looked for support in this area and had contacted the Forestry Commission or searched online for opportunities. However, 'word of mouth' was the single most common way people discovered Woodfuel East. This was mainly through forestry consultants and advisors 'spreading the word', as well as through conversations within estate management circles and other industry contacts. These 'influencers' played a vital role in promoting Woodfuel East to potential beneficiaries. Therefore, future support programmes could make greater use of 'influencers' in promotional activities. Also, with many people now accessing various forms of social media, this could be considered as a tool for promoting and sharing communications about future programmes. Indeed, social media allows for rapid and cost effective dissemination of information to potential beneficiaries and other key stakeholders.

Many commented on the time it takes for messages to reach their intended audience and that more people in the industry would continue to become aware of Woodfuel East beyond the closure of the Project. A facility to deal with enquiries post Woodfuel East and alert potential beneficiaries to new support mechanisms would therefore be useful. Ideally, Woodfuel East's contacts should be developed into a network to support on-going communications, connections, networking and marketing within the woodfuel sector.

Once in contact with Woodfuel East, many respondents commented positively about on-going verbal and written forms of communication. In particular, they found value in conversations with the BDAs, presentations and networking at meetings, the opportunity to visit completed projects, as well as the Project newsletters and website. Indeed, many found the website very useful in accessing information and knowledge. A significant number of interviewees had received enquiries through the website which had led to new business. As a result, many were concerned by the closure of the website post Woodfuel East.

5.2 Usefulness of interaction with Woodfuel East

Although, most applicants did not foresee the benefit of completing a business plan and financial forecasts as part of the application process, it was striking that three quarters of grant recipients commented that interacting with Woodfuel East had helped them to think more strategically and / or commercially. For example:

- 30% of woodland owners commented that Woodfuel East had helped them to understand the potential of their assets and appreciate the benefits of managing their woodland. Some of these had received a Woodfuel East subsidised advisory service, and had been supported to produce a woodland management plan and engage with the Forestry Commission.

“The advisory service was extremely useful. It said there was potential to harvest 270 green tonnes per annum. The boiler would take 150 tonnes so we would have an excess. The Woodfuel East advisor prompted me to think about supplying the local garden centre, village hall and school... we’ve gone and bought extra equipment – trailer body and flatbed in anticipation of selling and delivering logs” (WO5)

“Our primary objective was to produce fuel for our woodchip boiler but our involvement with Woodfuel East helped us to think more holistically about the benefits of managing our woodland” (WO2).

- The technical knowledge provided by Woodfuel East was most highly valued by grant recipients. Respondents, whose projects did not go forward also appreciated the technical knowledge of the Woodfuel East officers.
- Many respondents felt they had a greater appreciation and understanding of the structural, business and operational requirements that would enable them to capitalise on future grant funding opportunities.

“...we’ve thought about various company structures and set ups for different parts of the business as these have a bearing on eligibility for various grants...”(WO6).

“Woodfuel East made me realise that to take advantage of grants, you need to be more professional in the business – there’s help available but you have to be set up right to access it. I’ve also thought more about growth of the business” (MB4).

- 20% stated that the site visits to view equipment, and the contacts that they had made through Woodfuel East, had been invaluable in helping to develop their vision for their business and / or woodland.

Notably a significant number of respondents whose projects did not go forward described their interaction with Woodfuel East as a positive experience. Several interviewees commented that Woodfuel East had helped them to think more commercially about their woodland assets. Many respondents also felt better prepared to search for, and take advantage of, other support mechanisms.

“The Woodfuel East process forced us to quantify our resource in a real way, understand our potential in terms of productivity and carry out forecasting to understand future scenarios” (WO15).

A quarter of the grant recipients interviewed did not believe that Woodfuel East had helped them think about their business or seek external support. These were mainly estates whose management teams had previously researched their project idea and already had a clear vision and plans, and in some cases were simply waiting for opportunities like Woodfuel East to make their project financially viable. Notably, these organisations tended to be previous recipients of grant funding and thus already ‘geared up’ to capitalise on support mechanisms available to them.

5.3 Business objectives for seeking Woodfuel East support

The business objectives for seeking a Woodfuel East grant are presented below. Most respondents listed several of these objectives

To increase production

A key objective was to increase the volume of timber achieved to a) increase the capacity for more sales and profit and/or b) to produce woodfuel for self-supply. Woodland owners also discussed energy security, cost savings (from the switch from oil) and carbon reduction objectives from becoming self sufficient with regards to heating and hot water

To be more efficient

Many respondents aspired to make processes for harvesting, processing and transporting timber cheaper and more efficient, thereby increasing the scale and profitability of their operations.

To increase sales volume from new products / markets (diversification)

Many respondents were seeking to enter the woodfuel market as a result of external factors including the rising price of timber, the increasing cost of oil and government policy in favour of renewable energy (i.e. RHI). These respondents comprised forestry businesses diversifying into woodfuel as well as woodland owners seeking to maximise the value of their woodland asset, predominately by selling their excess timber.

“We sought to take advantage of a growing market – the woodfuel side is the only part of the business that has grown, tree surgery side has suffered over the last few years (MB3).

“we used to leave firewood on the side of the road when we were doing tree surgery and hope that someone would take it. Now they’d be fighting over it!” (MB4)

To bring woodland into management

Many woodland owners desired to bring their unmanaged woodland into management to maximise the value of their woodland and for sustainability and environmental conservation reasons. It was acknowledged that managing their woodland would enable owners to attract further grant funding.

“The Woodfuel East grant gave us a reason and a financial incentive to properly manage our woodland. It subsidises the effective management of woodland – we have done more in the last 3 years than we had in the previous 20” (WO3).

“We wanted to manage [the woodland] well anyway but it clearly became apparent that we needed to find a market for the wood extracted. This fitted with the need to switch from oil to biomass on the estate asset base” (WO8).

“The Wood is a County Wildlife Site ... I wanted to use the grant money to help with managing the woodland ... as it had previously been neglected, and to not lose money in the process... Woodfuel prices were attractive, but also bringing the woodland into management would increase its value not just commercially but also its environmental and ecological value” (WO10)

To build on an existing business strategy

For several estates, Woodfuel East offered a potential delivery mechanism for their sustainability strategy:

“This ticks a big green box for us, which is very important. We are very committed to sustainability in terms of minimising carbon and protecting the environment, plus we benefit from the cost savings as a result of being green. The project aligned well with our business strategy and values” (WO4).

“We are already in the business of renewable energy and have a solar park so biomass fits very well with our business” (WO5)

It was my aim to set ourselves up as a biomass hub in the local area and bring confidence to the supply chain in the reliability, quality and affordability of woodfuel for biomass (WO11)

To improve the quality of produce

For several respondents a key objective was to improve the quality of their produce and build their reputation in order to win new contracts/clients. These respondents felt that quality was a key issue in the woodfuel supply chain.

“I wanted to improve service to customers. It was becoming very difficult in the busy periods to keep standards high because of the inefficiency of our wood processing machinery. We couldn't supply quickly enough and we knew that we had the potential to let customers down and that that wasn't sustainable” (MB7)

5.4 Perceptions about the success of Woodfuel East Projects

Over 80% of grant recipients interviews stated that they had achieved the targets they had set for their Woodfuel East project.

Woodland owners had successfully established an internal woodfuel supply chain and some were producing excess timber to sell on the open market. Several woodland owners reported cost savings from displacing oil. Many of the micro businesses interviewed reported efficiency gains as well as increases in the quantity and quality of timber they were able to produce to meet a rising demand.

“we are now producing more firewood, faster and to a higher quality” (MB8)

“I've increased my speed and efficiency – the new multi drop body means I have been able to increase the amount of wood I can deliver by 35-40%” (MB4)

Several respondents found that they had extracted more green tonnes of timber from their woodland than originally expected; this was most likely to be due to the previous unmanaged state of their woodland.

“We have increased firewood output – we were was looking for 150 tonnes per year and have actually doubled this output and therefore doubled sales. We also aimed to start and then increase woodchip production – our target was 65 to 70 tonnes per annum and we have doubled this as well” (WO10)

Many of the micro businesses interviewed also said they had exceeded extraction targets.

Several of Woodfuel East's earlier grant recipients reported that they had achieved targets to increase their turnover by as much as 50%. Several businesses had been supported to provide niche services (i.e. using horse powered machinery for timber extraction), which had enabled them to successfully win new contracts.

Furthermore, several of the micro businesses interviewed reported that Woodfuel East had helped them to forge partnerships with other contractors, generating new business opportunities and providing greater security from diversification.

"I'm working well with another contractor who received a Woodfuel East grant... his grant was for temporary road sections that enable you to access small woodlands that are normally inaccessible. He then gets me in to harvest the timber" (MB3)

The findings of the interviews also confirmed that targets for bringing woodland bought under management were successfully achieved by the grant recipients.

Reported success of their Woodfuel East projects had led to increased confidence for many grant recipients. Indeed, many commented that they now had a strong basis upon which to build their business.

"We surpassed our targets to increase the volume of wood processed, safeguard jobs, and increase supply of biomass material very quickly. The extra investment has galvanised the organisation and given us the confidence to move forward" (MB8).

However, for a significant number of respondents it was too early to assess whether targets around growing their business had been achieved. Although positive about the future in terms of diversification, winning work and creating jobs, it would take more time for these respondents to see a return from their project.

The majority of grant recipients did not report any downsides or objectives missed in the delivery of their project. However a small minority of interviewees expressed caution over biomass technology. Several woodland owners wanted to take time to check the system was working before rolling out further installations on their estate, selling excess timber for woodfuel and/or promoting their use of biomass to their local community and other stakeholders. There were several examples of projects that had experienced problems regarding the design of the biomass installation that had made access more challenging. Furthermore, one micro business explained how the equipment purchased with his Woodfuel East grant had enabled him to win contracts to supply large scale biomass installations. However, due to various technological problems with the installations these contracts have been delayed; this has had a significant impact on his business, whereby equipment is at a standstill and he has had to let a staff member go. Nevertheless, he is hopeful that this situation will be remedied over time and work will continue.

5.5 Jobs created

30% of interviewees had created new jobs as a result of their Woodfuel East grant, including delivery drivers, foresters, general woodsmen, machine operators and forestry apprentices. A further micro business owner had created a job following the purchase of harvesting and processing equipment but had to make that person redundant due to factors outside his control.

"I did employ an operative but I had to let him go due to boiler unreliability. Boilers keep breaking down, or stalling so we gear ourselves up for a big job and then it's all off. I can't afford to pay staff that I'm not using" (MB3)

A quarter of interviewees firmly believed that existing jobs were more secure as a result of their Woodfuel East project:

“There is definitely more work for the team that were already here; we have increased productivity and are also able to develop the activity that delivers a financial return” (WO8)

“We employ two woodsmen whose costs were difficult to justify; now they aren’t! They are contributing firmly to the economy of the estate in that we are not buying any oil - and this has provided a massive morale boost to them. Their positions are far more secure and justifiable. Previously it would have been cheaper to make them redundant and use contractors but not now...” (WO4)

“It’s [their Woodfuel East project] secured the full time employment of one individual who was on a temporary contract” (WO9).

15% of the grant recipients interviewed believed that they had the potential to create jobs as a result of their Woodfuel East project.

We haven’t as of yet, but if we expand to supply the garden centre and school, we will. Its likely we would need another farm worker on a salary of 25-30k, who would probably spend around 50% of their time on the woodland part of the business” (WO5).

“The business is stronger, meaning jobs are safer, and we are planning to take on an additional employee in the next few months” (MB4).

“The grant has meant I’ve gone from working part time on my business to full time. I believe it’s got the potential to grow and create more jobs. We’ll just have to see how it goes. Cash flow is much better now and there are now some reserves which were non-existent when I got the first grant... This year or next year, I’d like to move to my own premises and invest further “(MB7).

Respondents also discussed how other contractors and suppliers had benefitted as a result of their Woodfuel East project, for example, 35% had used forestry contractors for felling and processing, and 15% had employed Forestry consultants for advice and preparation of woodland management plans. Several commented that their suppliers had benefitted from price increases and rising demand. Furthermore, woodland owners commented on the value of the work that the project had created for the local building trades, as well as machinery suppliers and biomass boiler installers. It was also acknowledged that end-users / customers had benefitted from a more reliable and high quality supply.

“The wholesale customers that we have, our supply to them was not resilient – now it is. They in turn do not suffer hold ups now and it has allowed them to grow at the same rate as we have seen. They do not have to turn custom away now” (MB8)

“We were able to improve the quality of firewood – by cutting it up smaller, it seasons better” (MB5)

It was also commented that, as a result of a Woodfuel East grant, 5 education programmes have been undertaken to raise awareness of using horses as a sustainable and environmentally sensitive means of timber extraction. This demonstrates that Woodfuel East has had an impact on the promotion and education of the sector.

5.6 Unexpected outcomes

Around three quarters of grant recipients discussed a wide range of unexpected outcomes that had resulted from their Woodfuel East project. These included:

Positive interaction between woodland owners and the local community

Some estates had involved the local community in the production process, which had led to better relationships with local people.

"We've had extra interaction with locals. We let them collect leftover wood on the forest floor – they take their neighbours to collect this wood so that they can heat their houses. This has created a positive community process which is appreciated. Neighbours get a warm house and more interaction with the estate. This has also helped locals understand what goes on in woodland management and why it is done. There is less myth and we have received fewer complaints and enquiries when they have heard machinery in the woods..." (WO6)

Unexpected press coverage, networking and reputational benefits were also reported by several respondents:

"We've had a huge amount of interest - people have wanted to look round, the local community were interested, we've also had a Ministerial visit and been in the press. We love showing it off and this has led to reputational benefits and positive publicity for the estate" (WO4)

"I appeared on the TV programme 'Working Lunch' and also had various other dignitaries to visit, which were great opportunities to promote the business" (MB8).

Furthermore, a micro business owner had taken their logging horse to several local schools to educate pupils about sustainable woodland management and horse logging. This had enthused teachers and pupils alike and provided a valuable opportunity to share expertise with the local community.

One woodland owner had been able to contract out his staff to neighbouring estates as a result of the skills they had gained through the Woodfuel East project. This had boosted income and enabled him to form productive working relationships with other estates.

There was also an example of a forestry business working in partnership with a local charity which supports people who have learning disabilities, by providing training and work opportunities in horticulture and organic market gardening. The business provided a kindling machine (bought with a Woodfuel East grant) for the charity to use to help develop people's skills. The business then sells the kindling that the charity produces.

Increased morale and enthusiasm

There were several examples of how managing woodland as a result of the Woodfuel East intervention had led to the up skilling of the workforce and resulted in increased job satisfaction. Notably, one woodland owner commented that workers had received some financial reward for their enhanced role.

"Previously the woodland was unmanaged and neglected; it wasn't seen as a core business. Now very much a part of the operation of the estate ... it's rejuvenated the team concentrating on this work. They are now considering next steps and talking about providing and planting for furniture grade and construction. We are now actively promoting the public benefits... and inviting people in to view our set up" (WO9).

"The project reminded me of my engineering capabilities. I had to convert the trailer for the horse after the original contractor couldn't do it. It's led to me using my 'much-forgotten' skills in other ways" (MB10).

Greater business confidence

The interview findings indicated a growth in business confidence amongst many grant recipients, which had had a positive effect on their business.

"I couldn't have foreseen the growth in organisational confidence because we can now be more sure of our supply line... the company feels successful given we've experienced some growth; before it felt much more difficult. This increase in confidence has led us to benefit far more than we had actually predicted just with the intervention" (MB8).

Alert to new business opportunities

There were examples whereby respondents had developed unexpected new income streams, for example through selling excess timber or from recognising the true value of their woodland.

“Woodfuel East has given us the ability to diversify and move into a completely new business stream, which was unexpected – we learned that our woodland mainly comprised hardwood which is of higher value. As a result, we went on to invest in training and skills – including HGV and Hiab training. We’ve learned how to set up a website and analyse data in order to target our marketing” (WO1).

Wider benefits of woodland management

The findings of the interviews strongly suggest an increased understanding, particularly of the wider benefits of woodland management amongst many grant recipients. For example, several interviewees commented on sustainability benefits gained as a result of managing woodland, which had not been appreciated prior to the project.

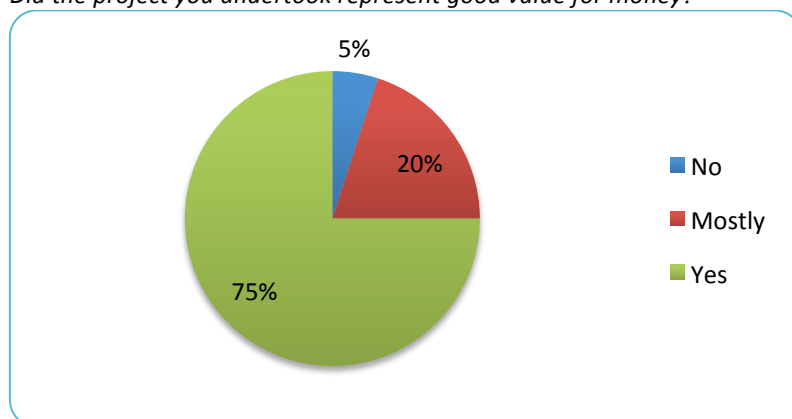
“We have areas of alder coppice, which is a local diversity action plan (BAP) target. We are now successfully managing this resource – we use the wood in the chippings. The interconnectedness of the benefits hadn’t necessarily been appreciated fully” (WO8).

“Our original target was to produce enough wood for the boilers in the building. However, our woodland assets were more valuable than we thought and thanks to Woodfuel East, in practice we have been able to create a new line of businesses whilst sourcing sufficient local softwood to fuel the boilers” (WO1).

“Woodfuel East was an excellent way of recognising the significant and sustainable economic potential of our woodlands. Our interaction with Woodfuel East enabled us to communicate with the conservation community and helped to dispel some myths about woodland management” (WO15).

5.7 Value for money

Did the project you undertook represent good value for money?



The majority of respondents believed that their project had represented good value for money in that that they had achieved, or were on their way to achieving, the targets they had set for their project. A significant number of respondents discussed that following the success of their Woodfuel East project, they had either invested or were planning to invest in additional equipment or biomass technology to strengthen and or grow their business. This demonstrates that Woodfuel East investment has been a multiplier for additional investment in the woodfuel supply chain in the East of England.

“It’s been very good value for money; we’ve purchased extra bits of equipment with a view to expanding the business” (WO5).

“Our target was a minimum of 10% return on our net investment – which we have achieved (more like 12%). However, this is a bigger project and includes the biomass boiler, but Woodfuel East were the catalyst for the whole project and represented about 75% of it” (WO4).

The findings of the interviews highlighted the broader social (particularly education, health and wellbeing, community); environmental (wildlife, environmentally sympathetic techniques for extracting timber); and climate (increased use of renewable energy) benefits that had been achieved as a result of increased woodland management. Many respondents argued that these broader benefits should also be considered when looking at the value for money of Woodfuel East projects.

Micro businesses which secured relatively low amounts of grant funding were less likely to view their project as representing good value for money compared with businesses and woodland owners which had received higher amounts of grant funding. This was predominantly because the amount of paper work required was perceived to be excessive relative to amount of grant being secured. One respondent described how his decision to utilise a Woodfuel East grant had had a short-term detrimental impact on his business.

“I received a modest grant for the time I spent on the application. Also, the application process took far too long and this had a detrimental effect on the business. During this time I ran a piece of machinery 6 months longer than I should have, which became faulty and caused us to be inefficient and to lose jobs. I think we were financially worse off than if we hadn’t taken the grant and had just purchased the machinery ourselves” (MB6)

However, a significant number of respondents felt it was too early to assess with any accuracy whether their project had represented good value for money or not, although notably many were positive that they would see a return on their investment in the future.

“... I’m glad I’ve done it; I know I’ve got a good business and think it was a good move. Rising prices of timber is good news and I think continuing demand is fairly certain” (MB3)

5.8 Additionality

A quarter of respondents stated that the benefits they had experienced having undertaken their project were overwhelmingly due to Woodfuel East.

“Without the Woodfuel East grant we would not have done what we did. We would have just carried on as before without this impetus” (WO3).

“It was purely because of the Woodfuel East grant that we were able to create a new job on the estate” (WO9)

The remaining interviewees believed that a significant proportion of the benefits gained as a result of their project were due to Woodfuel East. For the woodland owners, Woodfuel East intervention had helped them to establish an internal woodfuel supply chain as part of a wider strategy to install and supply a biomass boiler. These respondents believed that a significant proportion of the benefits gained from self supply were due to Woodfuel East in that they were a key factor in driving the wider project. As a result of the project’s success, a significant number of woodland owners are planning to scale up their use of biomass for heating and hot water. Many of the micro businesses also acknowledged that a good proportion of their project’s achievements were due to Woodfuel East. Although the majority of respondents were unable to quantify this with any accuracy, it was frequently commented that Woodfuel East was the catalyst for the project, and without the investment, many would not have had the finance and confidence to proceed.

“Without the money from Woodfuel East I’d have probably gone ahead with 50% of the projects but they would have been on a smaller scale and taken longer to come to fruition, as cash flow would have been a huge issue. Also it would have been higher risk. Because of the Woodfuel East grant I’ve been able to hire out the machinery to others, which has provided an additional income...I’ve started a partnership with another contractor that I was introduced to by Woodfuel East and that venture looks promising ... I also attended a couple of Woodfuel East networking events and got to meet people from the Wildlife Trust. I’ve since undertaken contracts for the Wildlife Trust having not worked for them before” (MB4)

“I wouldn’t have done the project without the grant it would have been too difficult financially and too much of a risk”(MB3).

It was also widely reported by interviewees that project’s outcomes would not have been to the rate and scale achieved were it not for Woodfuel East. Furthermore, several respondents maintained that support from the Woodfuel East Business Development Advisors played a critical part in the benefits produced by the project

“Without Woodfuel East the project would have taken longer and been less efficient. The advice I’ve received has been first rate and without it I’d have made mistakes along the way due to my lack of lack of knowledge and experience in this area. For example, I’d have probably gone for a smaller woodchip store, not thinking about the potential to supply other heat sources in the area such as the garden centre and school. Also I’d have probably gone for a forwarder not an integrated forwarder and cracker which would have been a mistake because without cracking, logs from poplar trees take a lot longer to season” (WO5)

“Without the WFE grant, advice and guidance we would not have done what we did. We wouldn’t have known the value of our woodland – it opened the door as to how to deal with a big asset on our estate – of 200 acres plus an additional 35 hectares planted last year” (WO1).

However, it was acknowledged that there were other factors behind the project’s achievements including the vision and entrepreneurship of the grant recipient, rising demand for woodfuel, a static market, government policy in favour of renewable energy (i.e. RHI) and even the weather.

“Woodfuel East has played a part in this increase but its impossible to say how much or put a figure to it. The woodland industry has changed significantly and rapidly since we received the funding 3 years ago.” (MB6)

5.9 Sustainability

Many respondents were keen to build on the opportunities that had been created by their Woodfuel East project. Half of the micro businesses interviewed discussed taking a longer-term view in terms of growing their business and creating new jobs. Many of the estates interviewed were keen to roll out additional biomass installations to reduce their reliance on oil. These respondents also discussed their potential to promote biomass and supply woodfuel to heat sources in the local area. Several respondents were keen to continue undertaking education and training programmes on using horses for extracting timber in an environmentally sensitive way.

“We’ve recently planted more woodland to ensure a long term future. At the moment we chip what we need, but as our experience / knowledge of the boiler and the management of woodchip (i.e. to ensure quality) grows we will look to sell woodchip in the future. Its one thing to supply to yourself but another to sell on the open market and we want to get it right and be confident here before we expand this side of the business” (WO4).

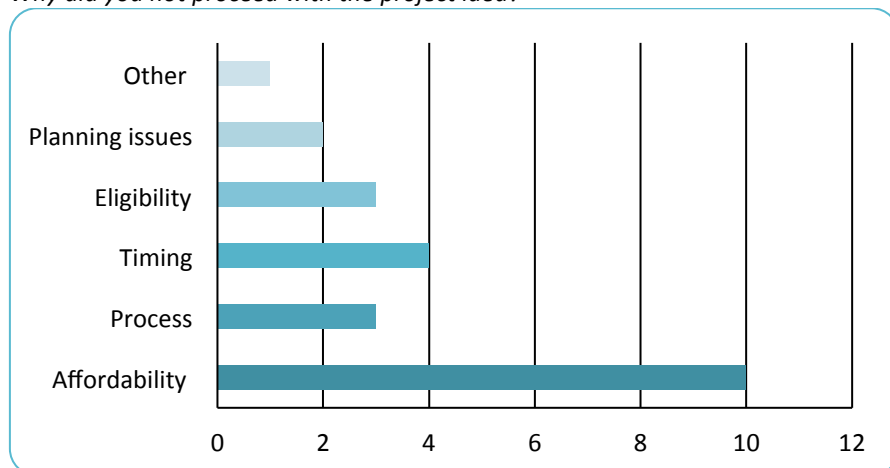
However, several respondents cautioned that in the future the woodfuel market will be capped by the availability of wood:

“... however the material is getting harder to find and this is likely to increase as the demand grows” (MB5)

5.10 Projects that did not go forward

Twenty interviews were undertaken with a sample of project applicants who did not proceed to implementation. In some cases projects were actually approved but did not progress for a variety of reasons.

Why did you not proceed with the project idea?



The findings of the interviews indicated that most projects did not go forward for financial reasons. These included applicants being unable to provide match funding or realising that the project was not going to be financially viable. Several respondents noted that the current period of economic fragility had undermined their confidence to invest.

"The finance didn't stack up...we were contemplating putting 15 properties on a heating scheme but they didn't use enough oil to justify the change, so there would have only been a small saving" (WO19).

One woodland owner had investigated whether a collaborative project with other woodland owners and businesses could have provided a higher return on investment. Although, this attempt was unsuccessful, a more collaborative approach could make managing small areas of woodland more financially viable, hence bringing more woodland into management. The provision of support for collaborative projects therefore warrants further investigation.

"In order to try to help take advantage of economies of scale we investigated co-ops with other local businesses...we took part in a networking event with Woodfuel East which raised interest but no commitment unfortunately. The problem was that knowledge on this kind of commercialism of woodland is in its infancy and within the generation that currently owns woodlands, lots of people are out of touch with the potential they have" (WO20)

A small number of projects did not proceed because the grant restrictions meant the project was ineligible for funding, for example, the purchase of equipment that could be used for both forestry and farming purposes. There were also examples of applicants who had misunderstood the process; having realised their project was ineligible they then became extremely frustrated and disillusioned with the process.

"If we had bought the splitter using the Woodfuel East grant we could have only used it in the wood and not on the farm... We subsequently purchased a second hand one without these restrictions" (WO21)

A significant number of respondents felt the application process impeded their ability to proceed with the project. They found the amount of information required overwhelming and the financial checks intrusive.

“The application process was overwhelming, they wanted so much information ... and there was a lot of duplication...I gave a lot of time to the process but they kept coming back for more information... I found it difficult to provide what they wanted. I got my accountant to help him but I couldn’t interact with his bank as easily... It became something that I felt I couldn’t continue with” (MB14)

“... we run a number of different accounts for different parts of the estate and they wanted details of all of these – too intrusive... we’ve done well with other grants and are familiar with the processes surrounding grant funding but this was too difficult” (WO11)

According to one respondent, the stringent nature of the process and lack of flexibility was not conducive to innovative projects; in this case the respondent was seeking to build a new piece of forestry machinery and the process was not able to deal with the experimental nature of the project

“We had an innovative idea, that was supported by Woodfuel East initially but a lack of flexibility meant that we could not carry on. As challenges emerged in the project, which was partly inevitable because of the nature of what we were trying to do, there seemed to be no room for manoeuvre in the process. We found it very frustrating, we put a lot of work in and the project couldn’t deliver” (MB13)

Several respondents were too busy to gather and present the information required to proceed with their application. A few others commented that they could not meet the timescales of the grant process.

One interviewee reported how he had repaid his grant due to a lack of suitably trained machine operators.

Problems in gaining the necessary planning consents prevented around 20% projects from proceeding. In other cases alternative grant funding was obtained, the requirements for which were said to be less stringent. This resulted in several Woodfuel East applications being withdrawn.

Half of the projects that didn’t go forward under Woodfuel East did not proceed by any other means. However, the remaining 50% of projects were subsequently undertaken, albeit on a much reduced scale. i.e. construction of smaller woodchip storage facilities, purchase of cheaper, less efficient machinery, self supply on a smaller scale. Subsequently, these respondents acknowledged that without the Woodfuel East grant they had not progressed to the speed and scale they had originally intended.

“We’ve gone ahead but on a much smaller scale...we’ve converted a grain store for woodchip storage but it offers less storage and the chip is of a lower quality. We haven’t got to the level we would have with the WFE grant, due to lack of funds for investment” (WO11).

“We’ve installed a biomass boiler and are supplying that but not selling to the public; we are just self-sufficient for firewood”(WO21)

“I secured private investment from a friend and was able to buy a processing machine but it is slower” (MB14)

Several respondents who proceeded with their project without a Woodfuel East grant were relieved to be unburdened by the conditions of the grant (such as volumes of timber that should be produced). One respondent believed that this had allowed him to proceed in a more environmentally sensitive manner.

“I’ve been able to move forward in a quiet and gentle way without the pressures of production that were required by the grant – I feel this has been ‘kinder’ to the wood, and more environmentally friendly. If I

had taken the grant I would have grown quicker, produced more wood and have damaged the wood more with bigger tracks and machinery” (WO10)

5.11 Strengths and weaknesses of Woodfuel East

Strengths – People

There was a consensus amongst interviewees (both grant recipients and projects that didn't go forward) and survey respondents that the facilitation service provided by Woodfuel East was a key strength of the Programme. General comments were also made about the capital investment programme being well conceived, and that the investment had enabled many of the micro business owners to grow their businesses as a result.

Most of the grant recipients believed that the support of the Woodfuel East Business Development Advisors was critical to the success of their project; both in terms of knowledge and expertise to inform project conception as well as help with processing aspects. Indeed, 85% of respondents reported that they had received a lot of help from Woodfuel East. All reported that they received as much help as they needed and had asked for; no respondent said that they would have liked more assistance. However, several respondents felt that once their project was in place there was little follow up. It was suggested that the opportunity to network with others who had received interventions would have been beneficial.

All interviewees and survey respondents were, without exception, highly complementary about their Business Development Advisor (BDA) and rated as 'very high' the service they received. The knowledge, expertise and quality of advice were particularly valued, and the personality and approach adopted by the BDAs proved very effective. Notably, all respondents commented positively on the facilitation service - even those who expressed disillusionment with the process aspects of Woodfuel East and those whose projects did not go forward.

“There could not have been a more helpful person than ...[BDA]. He was there holding our hand through the whole process... he gave us very, very good advice and made sense of the application process” (WO3).

“The main strength of Woodfuel East was the personal element. Our BDA was brilliant! Knowledgeable, trustworthy and supportive, he realised straight away what we needed and gave us great advice and helped us get the most out of the project” (WO5)

“Working with them has been a joy – they were knowledgeable, helpful, enthusiastic and diligent – we wouldn't have got anywhere without them” (WO1)

“Great, wonderful. [BDA] was incredibly supportive, without him pushing me despondency would have set in and I would probably not have completed the application” (MB10)

“A key thing here is to have somebody who knows what they are talking about. That was clearly ... [BDA]. He was exactly the right type of person, very knowledgeable and not at all patronising (MB8)

“... [BDA] is a cracking bloke, really helpful, I can't praise him highly enough... I've all the time in the world for [BDA]; he was absolutely brilliant... he was sensitive to our frustrations with the bureaucracy and handled it all very well” (WO7)

“The BDA was knowledgeable, experienced and very well prepared – he knew his stuff as he had worked in forestry – this saved so much time and effort in bringing someone less experienced up to date with our business... he was highly professional and posed the right questions” (MB3)

“They were informative and keen to find solutions. The process killed this project.” (MB13)

“the most efficient group of people I have had to work with in the government sector” They were ‘top quality’. He [BDA] helped me with everything, it was a superb service. (WO13)

“...[BDA] was first class. The application would not have been possible without him. Not just because of his expertise in grant funding, but also his active knowledge of woodland” (MB18)

“...[BDA] was tremendous, hugely supportive. He is so knowledgeable and experienced and I learned a lot from him... He worked his socks off” (WO16)

The comments above demonstrate an exceptionally strong performance by the BDA's. However, it is important to consider this within the context of the role of the Woodfuel East's BDAs and the strategic decisions made by the project steering group. As part of delivering their role, the original intention was for the BDAs to deliver Woodfuel East's own training courses to build capacity in the sector. However, the BDAs were only able to develop and run one training course, due to their time being taken up supporting applicants. This was deemed essential to the successful delivery of the Woodfuel East strategic investment support programme. Accordingly, it was agreed with Defra that a proportion of the time BDAs spent advising grant applicants could be counted as 'training'. The flexibility accorded to Woodfuel East to deliver capacity building / training in this way, and the project management decision for the BDAs to provide such high levels of support to applicants, meant that grant recipients felt incredibly supported. This, coupled with the experience, technical knowledge and personal approach of the BDAs may explain the overwhelmingly positive comments on the Woodfuel East facilitation service. Had this not been the case – i.e. if there had not been this flexibility and opportunity for BDAs to spend time with applicants and/or the BDAs employed were less knowledgeable and technically specialist, this could have had a significant detrimental impact of the success of Woodfuel East.

5.12 Weaknesses – Process

Three quarters of respondents believed that 'process' and 'bureaucracy' were the key weaknesses of the Woodfuel East Project. Although, many acknowledged that the need for rigorous administrative procedures when receiving public funds, it was deemed that these were largely excessive in the case of Woodfuel East. The main complaint from grant recipients was the perceived complexity and repetitive nature of application forms. It was argued that, particularly for smaller grant amounts, the amount of information required by the form was disproportionate to the level of grant being sought. A significant number of grant recipients commented on the difficulties they had in understanding what information was required by the questions. Indeed, there was a perception that the Woodfuel East process was more complex than the process for other grants respondents had received. Several informants reiterated throughout the interview that they were not “good with forms or a computer” which hindered and frustrated them.

“You grit your teeth and spend a day going through it and then you realise that's just the concept form!” (MB6)

Notably, without support from their Woodfuel East BDA, many believed that they would have struggled to successfully complete the paperwork required. Indeed the findings of the interviewees provide a strong case for a facilitation service to be provided to support the uptake of future RDPE grants.

“Of all the grants they go for they have never been more impressed with the level of professional/technical advice provided...Without the face to face contact we would not have attempted this, if DEFRA are serious about the uptake of grants you need to have the confidence and support that comes with face-to-face contact” (WO9).

Respondents also commented on the timing aspects of the process – for some it was frustratingly slow, for example if they had identified a piece of specialist equipment they wanted to buy and were awaiting approval of their grant application. For others who had to deal with various authorities and stakeholders, the time scales provided added pressure.

“The whole process was a nightmare; without [BDA’s] help and enthusiasm I’d have given up. I got completely fed up with it. I’ve been in the business 25 years and some of what they were asking for was just ridiculous – for example 5-year cash flow forecast... I’ve two businesses and move money between them so cash flow isn’t a pressing problem. I can predict 6 months but not 5 years. A 5 year forecast is just rubbish, I mean I had two breakdowns last year which blew the cash flow. I felt forced into going through the motions and I knew it would probably end up not being accurate and therefore I didn’t want to do it” (MB3)

“... the process was quite exhaustive, there were lots of questions and a lot of duplication in comparison to other grant processes we’ve been through... I especially found the questions about viability for the project quite intrusive and we had to involve lots of others and experts to make sure it was all done correctly... we had to rely on others to supply details and then plan to bring it all together... we also had to deal with the planning authority and have detailed ecological surveys completed amongst the pressure of deadlines. It was hard work, it demanded a lot of time from us which was a significant cost” (WO6)

“The application form was tortuous! ... the questions were, difficult, irrelevant and repetitive. We needed... [BDAs] help to answer many of the questions” (WO5).

“The forms were horrendous, long winded - unnecessarily so, we couldn’t understand what the questions were getting at... We had 11 different drafts – only with [BDA’s] help did we manage to get it right...Some of the questions were very difficult to answer – i.e. about volume of timber and I felt we were forced to put something down that could have easily been inaccurate” (WO4).

A significant number of applicants commented on the difficulties of securing 3 quotations as part of the application process. For example, the specialised nature of the equipment being purchased meant there were few dealers from which to gain quotations; indeed several respondents had purchased equipment outside the UK. Furthermore, respondents were keen to use known and trusted building contractors to undertake the necessary work.

“It was hard getting 3 quotes... I felt guilty for wasting people’s time as it’s a small and specialist community. I knew exactly which equipment I wanted and the building contractor I wanted to use, who does a lot of work for us. I understand that I needed to explain myself and demonstrate value for money but I felt he could have done that through a site visit with the BDA and could have justified my decision-making process, this would have been a more common sense approach” (WO5).

Several of the grant recipients who had received more than one Woodfuel East grant described how the process had become less stringent and easier to navigate over time. This may have been due to increased familiarity with the process on the part of the applicant. Although, there was a perception amongst respondents that the process became more straightforward in the latter stages of the Woodfuel East project as the experience and confidence of the project management team grew.

“...the 3rd grant was more straightforward, as the scheme evolved and there was more experience of running the grant they seemed to relax the rules and regulations and employ more common sense...” (MB3)

However, a quarter of respondents, notably the larger woodland owners, did not believe the process was overly complex or bureaucratic. Notably, these woodland owners tended to have an estate management team to assist with gathering and presenting the information required. This is

in contrast to the micro business owners interviewed who had to fit in work on their grant application around their working day, which invariably meant working into the evening.

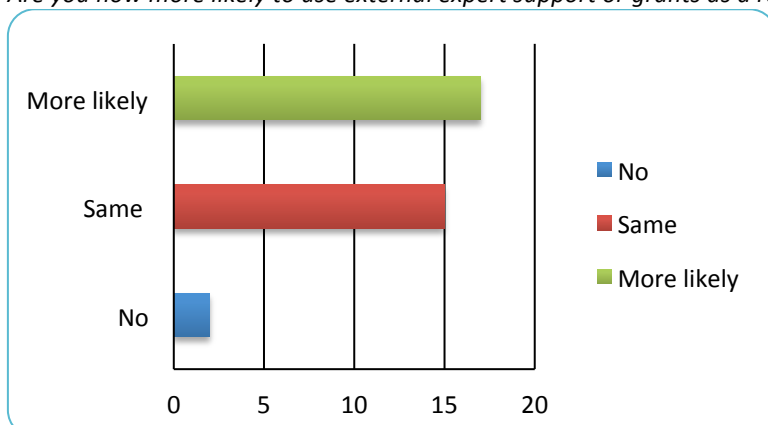
Respondents did not highlight any other aspects of the administrative procedure as being problematic. Many commented that the claims process was straightforward and that the Woodfuel East officer dealing with their claim was helpful and efficient.

Many respondents expressed frustration with some of the grant restrictions and requirements, mainly:

- Ineligibility of dual-purpose machinery that is critical to forestry operations:
“It was frustrating that they wouldn’t fund equipment that could be considered generalist – i.e. tractor – I’m in Forestry ... and I need this equipment to do my job. The funding is too restrictive and lacks common sense”. (MB6)
- Rules around the amount of time equipment purchased must be kept for, given the fluid nature of business. This is particularly challenging for micro businesses that need to respond quickly to change.
“... The trouble is that business is better than we anticipated, we are doing so much more work than we thought we would do and this has affected the lifespan of the machinery – and is wearing it out quicker. To keep up with demand, build on the momentum we have generated, and be as efficient and we can be we ideally need to change the equipment after 3 years. I understand why the 5-year requirement is in place ... but I think each case should be assessed on its own merit. It would be better if we could justify our decision to our BDA and if he could then produce the paper work needed. This would allow us to continue without expansion unburdened by machinery that is no longer as efficient as we need it to be.” (MB6)
- Problems with financing – some of the micro businesses interviewed would normally finance new equipment on a hire purchase agreement. These interviewees had experienced cash flow problems in funding the equipment (including for their contribution) upfront.
Finding the money for our proportion of the equipment - including VAT- upfront put us, as a small company, under enormous financial pressure. Normally, what happens is that we spread the cost over a few years (MB2).

5.13 Future uptake of grant funding

Are you now more likely to use external expert support or grants as a result of your experience in this project?



Most interviewees were very receptive to opportunities to apply for grant funding. Indeed, a significant number of respondents felt their experience of Woodfuel East had alerted them to the possibilities of grant funding and had enabled them to respond more effectively to future opportunities. However, the interview findings suggest that a facilitation and advisory service,

such as that provided by Woodfuel East would be essential to the uptake of future grant schemes, particularly those with a detailed application process.

“the first thing we would always look for now is the support that goes with any grant scheme. In the dark, the Woodfuel East team shone a light. Woodfuel East has shown how important it is to resource grant schemes properly...we’ve had the opposite experience with the RHI and DECC...” (WO1)

A small number of interviewees, however, felt that receiving grant funding was not a way forward for their business:

“To be honest, this process took its toll – I didn’t like the Rural Payments Authority demanding to see our financial details at short notice as well as the inflexibility in the process. It has put me off doing it again” (MB13)

5.14 Project management and administration

The bureaucratic nature of the Project’s processes and procedures were also highlighted during consultation with the Woodfuel East project team. Indeed, dealing with RDPE administrative requirements consumed a significant amount of the Project’s resources, in particular:

- revising and updating of the Woodfuel East operations manual and project forms to reflect constant changes emanating from government and the EU
- utilising the monitoring and reporting tools stipulated and keeping abreast of changes to reporting requirements. No one tool met all requirements of the Project and various tools were used to monitor the different aspects.
- preparing for a plethora of audits and assessments, including: internal checks by the Forestry Commission; EEDA re-performance checks; and independent auditing of the accounts
- Dealing with complex and onerous ‘separation of duty’ and Project appraisal requirements. “There hasn’t been a single claim form the same since we started the Project” (Woodfuel East Project Manager)

“There’s been at least 30% more bureaucracy than we thought” (Woodfuel East Project Manager)

5.15 Stakeholder perspectives on the success of Woodfuel East

Feedback from the Forestry Commission staff working on the Project also highlighted Woodfuel East’s onerous processes and procedures, particularly the ‘separation of duty’ requirements. They also commented on the difficulties of dealing with the constant changes to the accounting and reporting procedures. This had resulted in Forestry Commission staff having spent much more time on the Project than expected. Despite this the Forestry Commission were very positive about the Project and its achievements, particularly the bringing of unmanaged woodland into positive management and the carbon savings achieved by the Project.

Members of the Steering Committee, including Defra, also provided feedback to this evaluation. There was a consensus that Woodfuel East was a unique and visionary project having intervened at various points along a new woodfuel supply chain. The strength of the partnership between public, private and third sector stakeholders in working towards a shared vision was significant. The project also benefitted significantly from a good working relationship with EEDA and Defra.

The high level of bureaucracy and administration has been a recurrent theme throughout this evaluation study. The Steering Committee accepted that the meshing of a complex, restrictive and process heavy EU funding programme with a scheme that would work for stakeholders on the

ground had been a key challenge for Woodfuel East from the start. The evidence shows this had been achieved to an extent given the number of successful Woodfuel East projects; however dealing with administration had consumed a significant amount of the Project's resources. The interviews demonstrated that project applicants had also taken a share of the burden.

The Steering Committee concluded that the decision for the Forestry Commission to host and be the accountable body for Woodfuel East was well founded. It is unlikely that a private sector organisation would have been able to deal with the administrative and financial burden of the Project. Indeed the support provided by the Forestry Commission has been critical to the success of Woodfuel East.

There was general feeling that the Steering Committee had performed well and that the decisions taken about the Project had resulted in a more robust woodfuel supply chain. It was commented that as a forestry specific support programme, Woodfuel East had enabled the sector to benefit greatly from investment and capacity building. It was the experience of the Steering Committee that the agriculture sector is better able to capitalise on business support and grant funding opportunities than the forestry sector. For example, Defra observed low uptake of schemes such as FFIS and REG amongst the forestry sector in comparison to agriculture. There was a consensus that the forestry sector requires additional support, similar to that provided by Woodfuel East, if it is to maximise the benefits from future funding opportunities.

It was acknowledged that the Steering Committee demanded a lot of time from its members and that its approval of every Project may not been the most efficient use of members time. The Steering Committee also reflected that, understandably, the tendency was to more readily support the larger projects that demonstrated a strong business case. This tended to favour the larger estate-based self-supply projects with the resources to develop a strong application over less well-resourced micro businesses. However, being more open to supporting projects whose business case was less well developed may have yielded some good returns. Indeed, the support provided to micro-businesses through Woodfuel East has clearly demonstrated that small interventions can make a big difference in the development of a new supply chain.

The Steering Committee commented on the need to support applicants through the application process. The role played by the BDAs in knowledge transfer was seen as a valuable outcome. As well as sharing their own forestry expertise, the BDAs were also able to capture and share the knowledge and experience gained from other projects, and from one part of the supply chain to another.

Chapter summary and conclusions

Three quarters of grant recipients commented that interacting with Woodfuel East had helped them to think more strategically and / or commercially. Over 80% of grant recipients stated that they had achieved the targets they had set for their project. As a result, many commented that they now had a strong basis upon which to build their business.

Respondents also experienced a range of unexpected outcomes, including

- positive interaction between woodland owners and the local community, and enhanced reputational benefits
- increased morale and enthusiasm
- increased business confidence
- new business opportunities
- greater appreciation of the wider benefits of woodland management

Regarding job creation, 30% of interviewees had created new jobs, including delivery drivers, foresters, general woodsmen, machine operators and forestry apprentices; 25% of interviewees firmly believed that existing jobs were more secure as a result of their Woodfuel East project; and 15% of the grant recipients interviewed believed that they had the potential to create jobs in the future as a result of the project. The interviews also demonstrated how other contractors and suppliers had benefitted as a result of Woodfuel East.

Subsequently, the majority of respondents believed that their project was good value for money. Others felt it was too early to make an assessment, although were positive that they would see a return on their investment in the future. The findings of the interviews highlighted the broader social, environmental and climate benefits that had been achieved as a result of increased woodland management. Many respondents argued that these broader benefits should also be considered when considering value for money.

The interviews provided evidence that Woodfuel East has been a multiplier for additional investment in the woodfuel supply chain in the East of England. Many respondents were keen to build on the opportunities that had been created by their Woodfuel East project.

There were a range of explanations for why projects did not proceed to implementation, these included: financial and business reasons, failure to meet eligibility criteria, and problems in gaining the necessary planning consents to proceed. Interviewees were also put off by the nature of the WESISP application process which they found to be intrusive, overly complex and inflexible.

Most interviewees commented that they would be receptive to future opportunities to apply for grant funding and that their experience of Woodfuel East had alerted them to the possibilities of grant funding and would enable them to respond more effectively to future opportunities.

There was a consensus that the facilitation service provided by Woodfuel East was a key strength of the Project. The support and knowledge provided by the BDAs was seen as being critical to the successful delivery of WESISP projects. Indeed, the findings of the interviewees provide a strong case for a facilitation service to be provided to support the uptake of future RDPE grants.

The majority of respondents believed that 'process' and 'bureaucracy' were the key weaknesses of the Woodfuel East Project. The main complaint from grant recipients was that the application forms were overly complex, difficult to understand and repetitive. The bureaucratic nature of the Project's processes and procedures were also highlighted during consultation with the Woodfuel East project team and the Forestry Commission. Dealing with administration was found to have consumed a significant amount of Woodfuel East's resources.

The Woodfuel East Project has intervened in a new supply chain in the East of England. In this regard stakeholders viewed it as a unique and visionary project. Woodfuel East has comprised a strong partnership of public, private and third sector organisations working towards a shared vision. Operationally it has benefitted significantly from a productive working relationship with EEDA and Defra, and from the Forestry Commission acting as accountable body and host organisation.

Industry stakeholders also commented that as a forestry specific support programme, Woodfuel East had enabled the forestry sector to benefit from investment and support.

Chapter 6 Conclusions and Recommendations

This chapter returns to the original core evaluation criteria that were set out in the specification document and answers each in turn. It provides recommendations in relation to overall programme outputs and outcomes.

Assessment of Project rationale and design

The key policy drivers for Woodfuel East were the promotion of woodfuel as an important source of renewable energy, bringing unmanaged / undermanaged woodland into production and stimulating the regional rural economy. The purpose of Woodfuel East was to develop a sustainable woodfuel supply chain to deliver these policy aims throughout the East of England. A number of technical and consultative studies on realising the potential of the woodfuel market in the region informed the design of Woodfuel East. The final Woodfuel East proposal was coordinated and led by the Forestry Commission with three main strands of activity: the provision of advice and access to external support and advisory services; the facilitation of training courses; and the stimulation of the woodfuel supply chain through a strategic investment support programme.

Woodfuel East has been relatively successful in fulfilling its purpose and objectives. This reaffirms the original need for and design of the Project. The Project has resulted in an additional **114,584** green tonnes of timber being brought to market per annum as woodfuel across the region; it has saved **96,823.48** tonnes of CO₂e annually by displacing oil; **9882**ha of unmanaged / undermanaged woodland have been brought into positive management; it has created **£4,671,745** of GVA due to sales growth and jobs increase. Data from the interviews support the findings that Woodfuel East has enabled substantial business growth and skills development in the woodfuel market.

The Woodfuel East Project has not been without its challenges. Woodfuel East was operational at a time of significant change, which impacted on the Project. For example: financial uncertainty for the Forestry Commission arising from the coalition Government's programme of austerity; changes in administration as a result of the dismantling of regional structures; and changes in remit in response to the reprioritising of policy and strategy. The resulting key changes that were made to the Project are listed below:

- The adoption of new procedures following the transfer of the RDPE to Defra post EEDA
- The provision of support for boiler installations to stimulate demand for woodchip
- Expansion to support the wood fuel log market to meet a rising demand for properly seasoned logs
- The delivery of access projects by Woodfuel East in the East of England, which could elsewhere have been funded under the FC's Woodfuel WIG.
- Support for sawmills by Woodfuel East taking on projects that could be funded elsewhere under Defra's FFIS.
- Reductions in advisory service budget due to lower than expected demand
- Reduction in training budget due to lower than expected number of training courses delivered.

A supportive and committed Steering Committee and utilisation of an effective risk management process enabled the Woodfuel East Project to respond positively to change and evolve over time. The Project was able to maintain its strategic fit without losing sight of its original aims and objectives. Indeed, the primary data collected for this study demonstrates that the Project was

well received by industry and government. This confirms that Woodfuel East was a well conceived and much needed intervention.

Assessment of Costs

Woodfuel East received a total RDPE grant of **£3,281,803**, which just over 90% of the RDPE grant monies offered in the final contract (November 2012). The Project leveraged **£3,583,977**, which was 5% less private sector investment than anticipated due to the reduced overall spend. Although the percentage grant to eligible costs was slightly lower – 47.8% as opposed to the target of 49%.

The underspend was largely as a result of:

- Several larger projects withdrawing from the scheme or repaying the grant
- Receipt of more applications for smaller amounts of grant funding than anticipated
- Delays to RHI coming on stream, impacting on the project and resulting in the repayment of Woodfuel East boiler installation grants
- Reduced capacity and delays to projects, owing to the levels of bureaucracy and process requirements of Woodfuel East. The project team estimated that they spent a third more time on administration than they had anticipated and planned for.

The findings of the interviews indicated that Woodfuel East's facilitation of advisory services and training were under utilised. This was mainly due to overly complex processes and procedures as well as difficulty in reaching intended audiences.

Woodfuel East spending was actively managed throughout the Project and the budget was revised several times to reflect the changing circumstances of the Project. Changes were scrutinised by the Steering Committee and agreed with EEDA and Defra contract managers. Several revised contract letters were subsequently issued. Woodfuel East benefitted from a productive working relationship with EEDA / Defra with both sides working together to find solutions to the challenges presented.

Assessment of benefits

Woodfuel East has achieved:

- Total RDPE grant received **£3,281,803**
- **£3,583,977** of private sector investment leveraged
- An additional **114,584** green tonnes of timber brought to market annually as woodfuel
- **9882ha** of unmanaged / undermanaged woodland into positive management.
- **96,823.48** tonnes of CO₂e saved annually by displacing oil (gross)
- **36** jobs created, with the potential for further job creation
- **26** training courses delivered
- **76** advisory services delivered
- **£4,671,745** of GVA due to sales growth and jobs increase
- A ROI ratio of **7.8:1** if the GVA from sales and jobs is combined with the total carbon abatement

The findings of the interviews and consultation demonstrate that Woodfuel East has served to strengthen the woodfuel supply chain in the East of England. The majority of respondents perceived their Woodfuel East project had been successful. Many were also considering further investment; a number of micro businesses reported purchasing additional machinery to further strengthen their operations. A number of woodland owners, particularly on the larger estates, were actively promoting their use of biomass, as well as looking to increase their own use of wood for heat and sell the excess timber harvested from their woodland. 15% of respondents commented that they hoped to create jobs in the future.

The facilitation service provided by Woodfuel East was highly valued by respondents. As well as providing critical support to applicants, it also helped increase knowledge transfer and networking across the woodfuel supply chain. The capability and capacity of the supply chain was also bolstered by the delivery of the training courses and advisory services.

Woodfuel East has produced various economic, social and environmental benefits. Our analysis identified a net total of GVA due to sales growth and jobs of **£4,671,745**. If the Project had achieved its job creation target this figure would have been significantly higher. Woodfuel East has supported an assortment of projects across the region with some providing much higher economic returns than others. However, this was essential given Woodfuel East's aim to create a sustainable supply chain. It must be noted that Woodfuel East sought to intervene in a failing market; therefore the GVA is projected to increase over time as the market grows. Furthermore, Woodfuel East has resulted in improved skills within the woodfuel supply chain. It can also be assumed that bringing woodland into positive management will increase the value of the asset. It has not been possible to quantify these factors but it is likely that they would have a positive impact on GVA.

When the carbon savings are factored in, the ROI ratio of the Project rises considerably by **6.4 / 1 to 7.8/1**. Thus, a particular strength of the Woodfuel East has been CO₂e abatement and additional tonnes of woody biomass brought to market annually. We estimate that Woodfuel East has delivered between 20% and 30% of the targets for additional tonnes of biomass and carbon savings set out in the Woodfuel Strategy for England (Forestry Commission, 2007). Indeed, the Project demonstrates the commitment of the region and the importance of the forestry sector in responding to climate change.

As well as economic returns, communities and biodiversity have benefited from increased levels of woodland management and a reviving of woodland culture. Interviewees reported increased job security, satisfaction and skills. The larger estates also discussed the reputational benefits they had experienced from promoting their use of renewable energy. Several grant recipients had provided training and educational opportunities, including work with schools, communities and a charity supporting employment opportunities for disabled people.

The benefits of the Project will continue beyond the 5-year term applied to the Project's outputs. The capacity and capability of the supply chain has been significantly strengthened whilst also delivering an immediate return in GVA growth and carbon reduction. An improved supply chain demonstrates the on-going viability of the sector to continue to deliver the enhanced capacity and improve on this position.

Assessment of project management arrangements

Woodfuel East did not have the freedom to develop its own processes and forms; instead the Project was required to adapt the Leader procedures manual. This resulted in a very time inefficient and bureaucratic programme. There have also been an extraordinary number of changes made by EEDA / Defra to the various forms and procedures. For example no single claim form throughout the duration of the project has been the same. Interpreting and responding to procedural changes has been very time consuming for the Woodfuel East project team.

Lengthy and complex procedures and processes have also impacted on the Forestry Commission. For example, the Forestry Commission experienced delays in the settlement of claims for project costs paid in arrears. Also, the appraisal process was very time intensive for the Forestry Commission staff involved.

The Woodfuel East team worked hard to shield applicants from the full bureaucracy of the Project. The team provided considerable support to applicants, in some cases even completing various forms with them. Indeed, interviewees rated exceptionally highly the advice and support they received from the Woodfuel East Advisors. However, this placed additional pressure on the staff and reduced their capacity to undertake other project activities, for example providing training courses.

The governance framework for Woodfuel East was provided by a highly committed Steering Committee, which generally reflected legitimate interested parties and their differing interests well. The Forestry Commission, EEDA, and subsequently Defra were represented on the group. This was helpful in navigating the project at a time of flux and in raising the profile of Woodfuel East in Government. Hence, Woodfuel East aligned well with other support programmes and became a valued delivery vehicle. The Steering Committee was well serviced by the project team, which enabled the group to provide a thorough and rigorous level of scrutiny. However, this resulted in membership being very time consuming.

There was evidence that the communication and marketing of the various elements of the Woodfuel East Project were not as effective as they could have been. Despite procuring additional communications resource, the Project struggled in reaching new audiences. For example a significant proportion of interviewees and survey respondents were existing contacts of Steering Committee and / or project team members. The interview findings also suggested that the advisory services and training courses were under promoted and there was confusion about who was responsible for marketing these. However, once in contact with Woodfuel East information in the form of articles, newsletters and particularly the website, were generally well received by respondents.

Despite there being adequate monitoring procedures for projects in place, there was a significant lack of resource invested in monitoring projects once they had been implemented. This was largely due to the need for relatively high resourcing at project development, appraisal and approval stage. Furthermore the team have very actively managed projects approved very late in the cycle to align with projected spend. However, greater resourcing at the post-implementation stage could have created more opportunities to maximise and capture the impact of Woodfuel East.

6.1 Recommendations

Recommendations below are offered to help inform future approaches to supporting the woodfuel sector. These have been developed in response to the findings of this evaluation study and in consultation with the Forestry Commission

Build on the legacy of Woodfuel East

There continues to be a supporting policy context for woodland management, carbon abatement and economic growth. This Project has demonstrated the woodfuel sector's ability to provide positive impacts in these areas. Interviews with grant recipients have been clear about the boost to their business and the extended interconnected benefits. They have noted the improved confidence in the sector and the increased community appreciation of the benefits of woodland management. Therefore this evaluation supports the notion that there is likely to be continuing benefits from further well-designed interventions. By building on the legacy and goodwill of this Project the impact of future programmes will be enhanced from the growing confidence and momentum now prevalent in the sector.

Ensure future programmes for the forestry sector provide a facilitation service where appropriate

The findings of this evaluation study demonstrate that an effective facilitation service is critical to channelling investment into the woodfuel sector. Without the support of the Woodfuel East BDAs many applicants would have struggled to complete their project. Furthermore, there has been relatively low level of uptake of the FFIS from the forestry sector. This suggests that the forestry sector requires continuing support to capitalise on future investment opportunities.

Encourage collaboration and cooperation

The report of the FOREST Programme and guidance published by the Forestry Commission Scotland (Hutchinson and Harrison, 2011) discussed the benefit of increasing the levels of cooperation and collaborative working between supply chain actors. A cooperative approach was found to deliver high levels of service in developing biomass markets, which built confidence and encouraged further investment. However, the findings of this evaluation study suggest that in the East of England, collaborative models are fairly uncommon.

Given the potential for collaboration to lever in significant benefit, the provision of targeted support for collaborative projects should be considered. For example, seed funding and investment in cooperatives and social enterprises operating at a landscape scale in creating a woodfuel supply chain. The involvement of communities, which is a key facet of the social enterprise movement, would help to raise awareness about the benefits of woodland management. This model could also result in significant carbon savings from displacing oil.

Effective communication and marketing to new audiences has been a challenge for the Woodfuel East Project. For example, the marketing of advisory services to private woodland owners who had had no previous engagement with the sector. Supporting collaborative projects could enable wider audiences to be reached as well as allowing useful data on woodland ownership to be collected.

Promote and facilitate networking

Providing an opportunity for project beneficiaries and other stakeholders to network with others and share their experiences would increase levels of knowledge transfer and innovation. Having access to such a network would also assist project managers with communication as well as

monitoring and impact assessment. Many interviewees discussed the importance of continuity of support post Woodfuel East. There was also an appetite for retaining the Woodfuel East website, particularly its facility for linking supply and demand.

Simplify the process

This evaluation study found that Woodfuel East's administrative procedures were overly complex and bureaucratic. Dealing with process proved time-consuming and challenging both for applicants and the project team. Project bureaucracy could be reduced by: giving project officials greater autonomy and flexibility to make decisions; amalgamating forms (i.e. concept and application forms); and streamlining the appraisal process. A simplified process would also help to maximise the efficiency of future projects.

Impact measurement

Future projects should establish and integrate a means of monitoring and evaluating the impact and benefit of the initiative from the outset. This would help to ensure the process for data collection for project management and evaluation is as efficient and effective as possible. Also that data is of sufficient quality to make robust assessments.

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Appendix 1 Inferred Woodfuel East Logic Model



Appendix 2 Woodfuel East Steering Committee Members

SC	EC	TP	WE Team	Informed	FirstName	LastName	Company	JobTitle
					Brian	Stacey	Essex County Council	Woodland Officer
					Nat	Bacon	Ennergy Innovations	Director
					Sarah	Brown	Bentwaters Parks Ltd, Eastern Woodfuel	Director
					Rachel	Carrington	NFU	Senior Policy Advisor on the Environment
					Chris	Gardiner	Natural England	Senior Reserve Manager
					Tony	Hargreaves	Brown & Co - Property & Business Consultants	
					Tim	Isaac	CLA Country Land & Business Association	Regional Assistant(Eastern Region)
					Edwin	Jones	Business Link East	Partnership Director - Regional Rural Affair
					Jason	Kidman	Norfolk County Council	Environment Manager (Operations)
					Michael	Mack	Easton College	Norfolk Rural Business Advice service
					John	Morris	Chilterns Woodland Project	Manager
					Justin	Mumford	Confor / Lockhart Garratt	Director
					Claire	Wardle	FWAG	Ancient Woodlands Liaison Officer
					Richard	Parker	Renewables East	Development Director - Bioenergy
					Paul	Plummer	Norfolk Woodfuels	Managing Director
					Corinne	Meakins	Forestry Commission, East of England	Regional Development Adviser
					Justin	Segrave Daly	Harrison Group Environmental	Senior Sustainability / Energy Consultant
					Mike	Seville		Chairman Woodfuel East
					Sara	Hind	East of England Development Agency (EEDA)	Rural Development Manager
					Clarke	Willis	Anglia Farmers	Chief Executive
					Keith	Zealand	National Trust, Sheringham Park	Head Warden
					Gary	Battell	Suffolk County Council	Woodland Advisory Officer
					Edwin	van Ek	Woodfuel East	Woodfuel East Manager
					Sid	Cooper	Woodfuel East	BDA Suffolk, Norfolk and Essex
					Philip	Potter	Woodfuel East	BDA Cambs, Beds and Herts
					Diane	Ellis	Woodfuel East	Admin and Finance
SC					Steering Committee			
	EC				Executive Committee			
		TP			Training Appl. Appr. panel			
			WE Team		Woodfuel East Staff			

Appendix 3 Items funded under WESISP

The table below itemises the items of equipment that were funded under the Woodfuel East Strategic Investment Support Programme. The table was taken from presentation made by Sid Cooper, Woodfuel East Business Development Advisor, to the Woodfuel Steering Committee at their final meeting on 4/12/13 at High Lodge in Thetford Forest.

Chippers - 3	Forestry winches (including 1 purpose-built forestry skidder) - 4
Log grabs - 15	'Other' (e.g. cone & grab crackers, temporary roadway, horse logging) - 13
Fuelwood log processors - 33	Woodfuel stores – 31 (27 woodland owners/4 micro enterprises)
Fuelwood 'separates' (e.g. saw benches, elevators, billet bundlers, splitters etc) – 26	Areas of hard standing - 14
Forestry-spec tractors – 14	Woodland access projects - 10
Forestry forwarder trailers - 33	Transport projects (e.g. chip blower lorries, timber lorry, hook bin etc) - 7
Purpose-built forestry forwarders - 3	Moisture meters (chip and roundwood) - 30
Forestry harvester/processors - 5	Mobile sawmills - 3

5 boiler installations were also part funded and not included in this list.

Appendix 4 Interview schedules

Grant recipient's questionnaire:

Preamble

- Explain purpose: *End of programme evaluation required by Defra to identify what the project has achieved against its targeted outputs and outcomes, whether it has provided value for money and what the priorities for the future might be. Crucially, the evaluation also provides an opportunity to learn lessons that can be applied to future projects and support programmes for the woodfuel sector*
- Clarify time: *15-20mins*
- Confirm confidentiality: *Results and quotations will be attributed according to type of organisation; confidentiality of informants will be maintained; all data will be treated confidentially*

Interviewer:

Interviewee:

Date:

Organisation:

Position:

Nature of Business:

1. How did you hear of the Woodfuel East project and what has been your role in it?
- 1a. What has been your personal role and involvement with the WFE project? (*e.g. project manager, Woodland owner?*)
2. What did you use the funding for? (*Prompt: capital investment; advisory service (and/or both); training; revenue project*)
3. Did your involvement with Woodfuel East help you to think about your business and/or seek external support (i.e. to work on business plans, cash flow, forecasting, etc.) and has this been of benefit to you?
4. What were your **business** objectives in becoming involved with the Woodfuel East project (*specify: e.g. increased sales; profitability; new products/markets; increase yields; productivity; other*)
5. What targets did you have for your project (against above objectives) and what was achieved against any targets in practice? (*any figures i.e. increase in turnover, forecast turnover etc.?*)
6. Against your project's achievements (Q5), how much of the benefits were due to the Woodfuel East and how much would you say is due to other factors? (*additionality*)

7. Were any jobs created as a result of your involvement in the Woodfuel East? (quantify and categorise by type of job)
8. Did any of your suppliers/contractors benefit from your involvement in the project, for example by winning new work or contracts from you?
9. Where there any unexpected achievement/outcomes or benefits as a result of your project?
10. Please can you comment on your experience of working with Woodfuel East and the whole grant process (application, approval, claims)?
 What were the strengths?
 What were the weaknesses? - what would you change about the process?

10a How much help did you receive from the Woodfuel East team?
 NONE LITTLE SOME A LOT

10b Would you have liked more help? Please explain.

11. How highly do you rate the advisor who supported you in the project?
 VERY QUITE NOT VERY NOT AT ALL

Why do you say this?

12. Did the project you undertook represent good value for money?
 YES MOSTLY MOSTLY NOT NOT AT ALL

Why do you say this?

13 Have there been any downsides or objectives missed in delivery of the project?

14 Have the benefits of the project been sustained and will they be sustained or built upon into the future?

15 Are you now more likely to use external expert support or grants as a result of your experience in this project?

Thank You. Do you have any further comments? E.g. highlights, complaints, messages to those in government who will read this report?

Questionnaire for projects that didn't go forward:

Interviewer:

Interviewee:

Date:

Organisation:

Position:

Nature of Business:

1 How did you hear of the Woodfuel East project?

2 Were you involved in relevant activity prior to discussing Woodfuel East grant funding (e.g. other grants/ taking expert advisor advice?)

YES

NO

If yes how helpful were these activities?

3 What did you intend to use any funding for? (Prompt: capital investment; advisory services, training; revenue project)

4 What were your *business* objectives in considering involvement in the Woodfuel East? (specify: e.g. increase woodfuel sales; profitability; new products/markets; increase yields; productivity; other)

5 Why did you not proceed with the project idea?

6 Did you subsequently proceed with your project, but through another route?

YES

NO

6a If yes, what was the outcome?

6b If no, why not?

7 How highly do you rate the advisor who discussed your potential project with you ?

VERY

QUITE

NOT VERY

NOT AT ALL

Why do you say this?

8. How likely to use external expert support or grants as a result of your experience in this project?

Very likely

the same

Unlikely

9. Do have any comments on the strengths and weaknesses of Woodfuel East?

Thank You. Do you have any further comments? E.g. highlights, complaints, messages to those in government who will read this report?

Questionnaire for advisory service and training providers:

Interviewer:

Interviewee:

Date:

Organisation:

Nature of Business:

Position:

1. How did you hear of the Woodfuel East project?
2. What was your involvement in Woodfuel East?
3. How would you rate the success of your project (i.e. advisory services, training)? Please explain
 - 3.a What were your outcomes and did you achieve these?
 - 3.b What were the key challenges in delivery?
4. Were there any unintended benefits from your project?
5. Have the benefits of the project been sustained and will they be sustained or built upon into the future?
6. How did you find the process? (tender, appointment, claims etc.)
7. Have there been any downsides or objectives missed in delivery of the project?

Thank You. Do you have any further comments? E.g. highlights, complaints, messages to those in government who will read this report?

Appendix 5 Interview sample

Organisation / nature of business	Reference	Position	Project overview	Location
Grant recipients				
Estate - arable farming, woodland management – including woodfuel sales, property management and development	Woodland Owner 1	Property Manager	11k grant - refurbishment works	Herts
Estate - weddings and events, property management, golf course, partridge shoots and arable farming	Woodland Owner 2	Owner	Internal supply project 7.5k grant - trailer/crane log grab and roller with Moisture meter	Essex
Estate - property and land management	Woodland Owner 3	Managing Director	Internal supply project 67k grant - woodchip store and hardstanding	Cambs
Estate – residential, commercial and agricultural lettings, farming	Woodland Owner 4	Estate Manager	Internal supply project 55k grant - woodcracker, moisture meter, grab, wood store and hardstanding	Beds
Estate - farming and land management	Woodland Owner 5	Estate Manager	Internal supply project 14k grant - trailer with crane, wood cracker, moisture meter, conversion of exiting building into chipstore	Northants
Estate- arable farming, shooting, land and property management	Woodland Owner 6	Owner and Estate Manager	40k, Chip Store, Hard standing, log grab	Norfolk
Estate – farming, gardens open to the public	Woodland Owner 7	Owning family member	Advisory service recipient Internal supply project: 12.5k grant - woodchip store.	Norfolk
Estate - events, commercial and residential property, arable and livestock agriculture, conservation	Woodland Owner 8	Owning family member	23k grant - woodchip storage barn	Norfolk
Estate owned by a farming and property investment company. Farming, land and property management, leisure pursuits, gardens open to the public.	Woodland Owner 9	Estate Manager	104k grant – access road	Norfolk
Timber extraction using a horse	Micro Business 1	Owner	£888 grant - Suffolk Punch horse for logging	Cambs
Contract woodland management, regeneration and coppicing. Firewood and kindling supplier, contract processing	Micro Business 2	Owner	2 grants: <i>first</i> 2.3k grant - forwarding trailer/crane bracket; <i>second</i> 3k grant - processor, splitter, log grab and moisture meter	Essex
Harvesting, primary processing and curing chipping, storage and delivery. Woodfuel / Firewood	Micro Business 3	Owner	3 grants: <i>first</i> 57.5k - chipper; <i>second</i> 29k - articulated lorry with timber trailer and crane, 59k - Used chipper and new cabin loader crane	Herts
Environmental & timber contractor. Plant hire and firewood sales	Micro Business 4	Owner	4 grants: <i>first</i> 21.5k grant - processor, <i>second</i> 5.5k grant - timber trailer, <i>third</i> 9k grant - splitter, kindling machine, cleaning screen, tip delivery body, cracker and tarmac plannings, fourth 30k - purchase of harvester / processor, this was a joint project with another applicant	Cambs
Forest management, fencing, timber harvesting services, firewood supplies	Micro Business 5	Owner	3 grants: <i>first</i> 7.5k grant - thinning processor and woodcracker, <i>second</i> 7.5k grant - purpose built forestry thinnings forwarder (2nd hand), <i>third</i> 30k - purchase of harvester / processor, this was a joint project with another applicant	Beds

Harvesting contractor	Micro Business 6	Owner	5.5k grant - trailer and crane	Suffolk
Firewood supplier and contract processing	Micro Business 7	Owner	3 grants: <i>first</i> 8.5k grant - processing equipment and moisture meters, <i>second</i> 10k grant - forwarding trailer, <i>third</i> 3k grant - kindling machine	Norfolk
Wood and solid fuel supplies and delivery	Micro Business 8	Director	26k grant - processing equipment and forwarding Trailer and crane	Norfolk
Arboricultural and forestry company	Micro Business 9	Owner	17.5k - processor	Essex
Woodland management and Farm focusing on Horse Powered machinery	Micro Business 10	Owner	3.5k grant - forwarding trailer	Lincs
Tree and land management services	Micro Business 11	Managing Director	30k grant - roof mounted crane and trailer	Essex
Projects that didn't go forward				
Private Woodland Owner	Woodland Owner 10	Owner	40k grant - storage barn and track	Beds
Estate - farming land and property management, woodfuel sales, leisure, events	Woodland Owner 11	Operations Director	15k grant - woodchip store, scissor lift trailer moisture meter	Lincs
Estate - residential and commercial lettings, farming, woodland management, equestrian enterprises	Woodland Owner 12	Owner	86k grant - access project	Herts
Estate - farming and land and woodland management, conservation	Woodland Owner 13	Owner	Conversion of existing barn into a chip store	Cambs
Arable farm	Woodland Owner 14	Owner	Conversion of an existing barn into a chip store	Suffolk
Community Forest	Woodland Owner 15	Forest Director	2 grants: 5.5k, 33k	Beds
Registered charity managing land for leisure, recreation and wildlife conservation for the public benefit	Woodland Owner 16	General Manager	Received 2 Advisory services initial and follow up for marking and thinning. Grant	Herts
Private woodland owner	Woodland Owner 17	Owner	11k grant - woodchip store	Norfolk
Estate, farming, property and land management, woodland management, equestrian. Trading company for woodfuel	Woodland Owner 18	Farm Manager	144k grant - access improvements / roading for the more inaccessible woodlands on the estate	Suffolk
Estate - events, commercial and residential property, arable and livestock agriculture, conservation	Woodland Owner 19	Owning family member	2 grants: 70k grant - boiler installation and 173k grant boiler installation	Norfolk
Estate - arable farming, woodland management including woodfuel sales, property management and development	Woodland Owner 20	Property Manager	8k grant - log store	Herts
Arable farm and woodland	Woodland Owner 21	Joint owner and Farm Manager	Conversion of existing building into a chip store, splitter	Norfolk
Woodland management, fencing, timber harvesting services, firewood supplies	Micro Business 12	Owner	16k grant - forwarder trailer	Beds
Forestry Contractor	Micro Business 13	Managing Director	Sought to build an innovative machine comprising – forwarder, crane, crusher and accumulating harvesting head	Norfolk
Firewood / log supplier, processing	Micro Business 14	Owner	10.5k grant - firewood processor and logdeck and a cleaning screen, kindling machine and wrapping machine	Cambs
Tree surgery and forestry contractor	Micro Business 15	Owner	Conversion of a fixed bed lorry to transport timber	Essex
Tree surgery services	Micro Business 16	Owner	16k forwarder	Herts

Firewood supplies / delivery	Micro Businesses17	Owner	4.5k Firewood processor	Essex
Forestry business, silvicultural services, consultancy	Micro Business 18	Director	Repayment of grant - small, tracked forestry skidder for small-scale and low impact harvesting.	Norfolk
Timber contractor. Plant hire and firewood sales	Micro Business 19	Owner	3.5k grant for hardstanding	Cambs
Advisory services and training providers				
Machine instruction, training provider	Advisory Service 1	Director	Provided training courses subsidised by Woodfuel East	National
Woodland management advice to owners of unmanaged woods, training days on a range of woodland management skills. Consultancy services	Advisory Service 2	Director	Provided advisory services to woodland owners subsidised by Woodfuel East.	Beds, Bucks, Oxfordshire
Woodland and Woodfuel Consultancy	Training Provider 1	Director	Provided advisory services to woodland owners subsidised by Woodfuel East.	East/South East