

## **THE ROLE OF RESPONSIBLE SOURCING IN CREATING A SUSTAINABLE CONSTRUCTION SUPPLY-CHAIN**

### **DR JACQUELINE GLASS**

Senior Lecturer in Architecture and Sustainable Construction  
Department of Civil and Building Engineering  
Loughborough University  
Loughborough  
Leics LE11 3TU  
[j.glass@lboro.ac.uk](mailto:j.glass@lboro.ac.uk)

### **DR NEBIL ACHOUR**

Department of Civil and Building Engineering  
Loughborough University  
Loughborough  
Leicestershire  
LE11 3TU  
[n.achour@lboro.ac.uk](mailto:n.achour@lboro.ac.uk)

### **DR TONY PARRY**

Department of Civil Engineering  
University of Nottingham  
University Park  
Nottingham NG7 2RD  
[tony.parry@nottingham.ac.uk](mailto:tony.parry@nottingham.ac.uk)

### **IAN NICHOLSON**

Responsible Solutions Ltd  
Unit 12, The Office Village  
North Road  
Loughborough  
Leicestershire  
LE11 1QJ  
[ian@responsible-solutions.co.uk](mailto:ian@responsible-solutions.co.uk)

### **Abstract**

*Responsible sourcing (RS) provides a means to manage and ensure the attainment of sustainability objectives by procuring materials with a certified provenance. It is demonstrated typically through an organisation's procurement policy, via its purchasing decisions and practices, and addresses a range of environmental, economic and social considerations. In the UK, the government requires that 25% of construction products shall be from RS schemes by 2012 and major contractors are considering raising this target even further for major commodities like aggregates, metals, steel, concrete, bricks and glass. Results from an industry survey and company case studies show that major materials industries are instrumental to provision of RS goods; architects, clients and major contractors will drive change in the supply-chain; scope for enhanced reputation and market differentiation are encouraging many companies to seek certification. RS has the potential to transform the construction supply-chain into a transparent and sustainable enterprise; market forces and the notion of 'doing the right thing' may determine its more widespread adoption.*

**Keywords:** Construction materials and products; Procurement; Projects; R&D; Sustainability.

## INTRODUCTION

The construction industry is subject to growing stakeholder expectations about the accountability, transparency and legitimacy of its operations. This arises from concerns about:

- environmental impacts
- global supply chains
- labour and welfare conditions
- bribery and corruption

It is time to act on these concerns and ensure that the UK construction industry is responsibly sourcing its materials and products. Although there is no one single definition for responsible sourcing (RS) of construction products, it refers to the management of sustainability issues associated with materials in the construction supply-chain, often from an ethical perspective. Responsible sourcing of construction products offers a novel way to improve the implementation and traceability of sustainability objectives throughout the project supply-chain. The emergence of RS as a means to manage and ensure the attainment of sustainability objectives by procuring materials with a certified provenance, offers potential for improved sustainable procurement practices and higher scores in established sustainability assessment tools (Glass, 2011 forthcoming). Government initiatives for RS have changed the way that the construction materials supply chain is judged and a fast-increasing number of products are becoming certificated to new framework standards on responsible sourcing. This paper reports new results on the current state of RS practices in the UK construction industry. The key objectives of a survey and interview programme, with specifiers, contractors and manufacturers, were to understand:

1. the current scope and definitions of RS
2. drivers and benefits
3. who takes responsibility for RS on projects
4. the current state of RS assessment and certification

The outcomes from this work will help to define future directions for research on RS within the construction sector.

## ABOUT RESPONSIBLE SOURCING

Use of the term ‘responsible sourcing’ (RS) is relatively new due to the recent governmental sustainability strategy: Strategy for Sustainable Construction (HM Government, 2008), which encourages the construction industry to select responsibly sourced products. It stated that, by 2012, 25% of products used in construction shall be from schemes recognised for responsible sourcing and asked for framework standards to be developed, which it described as ‘*a documented set of criteria setting out the obligations of an organisation in managing the supply of construction products in accordance with a set of agreed principles of sustainability*’ (HM Government, 2008). RS schemes therefore are expected to be more comprehensive than ‘chains of custody’ such as Forest Stewardship Council (FSC) and managerial systems such as International Organization for Standards (ISO).

Responsible sourcing is demonstrated typically through an organisation's procurement policy, via its purchasing decisions and practices, and addresses a range of environmental, economic and social considerations. It can be perceived as taking an ethical approach throughout the supply chain, but does not pertain only to social issues. Such attitudes are now enshrined in standards, for example, BS ISO 26000 (2010) urges equal consideration of ecological, economic and social development goals, together with broader scale adoption of principles of social responsibility.

Use of the term 'responsible sourcing' has appeared only relatively recently in the context of the construction industry, namely in response to government strategy, which will be discussed later. Taylor (2008) suggests that responsible sourcing demonstrates that an organisation or industry '*accepts a broader responsibility for its licence to operate, beyond profit-maximising activities*', thereby seeking to '*avoid damage to bottom line economic performance by improving procurement policy, labour practices and management of environmental impacts*'. His interpretation underpinned the development of the first framework standard for responsible sourcing, BES 6001 (2009), which is also discussed later, but importantly now defines the responsible sourcing of construction products as: '*a holistic approach to managing a product from the point at which a material is mined or harvested in its raw state through manufacture and processing, through use, re-use and recycling, until its final disposal as waste with no further value*'.

This will affect procurement policy, supply chain management, product manufacture and specification practices, but will necessarily improve both accountability and traceability in the supply-chain. New (2004:271) asserts that '*...the notion of supply chain ethics cannot be swept away... buyers in particular will share some responsibility for the actions of suppliers*'. Indeed, in other sectors like fashion, food and mining, companies and industry partnerships have already reacted to concerns about environmental degradation, child labour, unsafe practices, bribery and corruption by setting up ethical or voluntary codes of conduct. Specific examples include well-known voluntary, ethical trading initiatives such as Fair Trade and Rainforest Alliance for various consumer goods, plus certification schemes for materials such as the Forestry Stewardship Council (FSC). There are also supplier data exchange and auditing schemes, such as Sedex ([www.sedex.org.uk](http://www.sedex.org.uk)) and StringTogether (<https://stringtogether.com>), used by companies in the clothing industry to handle detailed information on the provenance of materials, products and services, and new reporting mechanisms, such as FTSE4Good, the Global Reporting Initiative, and SA8000 from Social Accountability International, ([www.sa-intl.org](http://www.sa-intl.org)), to report, audit and compare performance.

## **THE UK CONSTRUCTION INDUSTRY APPROACH**

To encourage construction industry specifiers and clients to select responsibly-sourced products, the '*Strategy for Sustainable Construction*' (HM Government, 2008) sought to move away from the criteria set out in 'chain of custody' schemes like FSC and management systems such as ISO 14001 (2004). It stated that, by 2012, 25% of products used in construction shall be from schemes recognised for responsible sourcing and asked for framework standards to be developed to evidence the management of: '*...the supply of construction products in accordance with a set of agreed principles of sustainability*'. Two such documents now exist:

- BES 6001 *Framework standard for the responsible sourcing of construction products* v2 (BRE Global) details a series of organisational management, supply chain

management and, environmental and social requirements; it covers legal compliance, management systems, traceability and more specific aspects such as waste management, transport impacts and life-cycle assessment. For each item, it sets out specific criteria against which achievement can be scored; there is a threshold level of achievement which acts as a barrier to entry and four levels of performance (see <http://www.greenbooklive.com/page.jsp?id=169> for a list of certified products).

- BS 8902 *Responsible sourcing sector certification schemes for construction products – Specification* (BSI, 2009), sought to create a ‘standard for standards’, defining responsible sourcing as ‘management of sustainable development in the provision or procurement of a material or product’. This is a more straightforward document and contains a useful list of headings or issues that should be addressed in any responsible sourcing scheme. However, it was designed to be applied at sector-level, rather than specific products, so is not considered here in quite as much detail as BES 6001.

A responsible sourcing scheme enables individual manufacturers to gain accreditation for their products to a ‘standard framework’ for a particular product/material group (i.e. concrete, timber etc). The manufacturer is then able to promote specific products as ‘responsibly sourced’, based on its achievement on the rating system used (e.g. ‘Good’, ‘Very Good’ etc). This score can be used in established sustainability assessment tools, e.g. the Building Research Establishment Environmental Assessment Method (BREEAM, see [www.breeam.org](http://www.breeam.org)) and the Code for Sustainable Homes (see [www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/codesustainable/](http://www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/codesustainable/)). CEEQUAL, the civil engineering environmental quality scheme, also makes specific reference to materials from responsible sourcing schemes in version 4 (section 8.3) (see [www.ceequal.co.uk](http://www.ceequal.co.uk)).

Furthermore, RS offers a neat link between the ‘triple bottom line’ aspects of sustainability and management of corporate responsibility. For this reason, a link is commonly made between responsible sourcing and sustainable procurement, a term which carries significant weight in the construction industry, particularly following publication of the ‘*Sustainable Procurement Action Plan*’ (DEFRA, 2007) which called for change in how the government estate, roads and the supply-chain are procured to better address issues of low-carbon, water, waste and other sustainable development goals. Walker and Brammer (2009) define sustainable procurement as ‘*procurement that is consistent with the principles of sustainable development, such as ensuring a strong, healthy and just society, living within environmental limits, and promoting good governance*’. Although the notion of abiding by a set of principles clearly connects this with responsible sourcing, the terms are not interchangeable; rather, the responsible sourcing of construction products nests within an overall ethos of sustainable procurement. This is evidenced in BS 8903 *Principles and framework for procuring sustainably – Guide* (BSI, 2010), which cites responsible sourcing as an example of good practice in leadership and governance.

However, there is a complete absence of a research agenda on RS and a lack of evidence about its current status in the construction industry. Although certification schemes exist, there is no indication of current levels of knowledge and uptake. The research reported in this paper has collected new data from industry respondents and identified some critical new research directions. The data and conclusions also form an important stepping off point for two related research projects:

- **APRES network on responsible sourcing:** Loughborough University is leading an Engineering and Physical Sciences Research Council funded academic-industry network (Action programme on responsible sourcing, APRES) to develop a coordinated response on responsible sourcing (see <http://apres.lboro.ac.uk>). The overarching aim is to react to the challenges of delivering responsible sourcing, by creating a community ‘centre’ for knowledge-sharing of responsible sourcing practices, forging new research ideas and relationships. It provides an open and impartial discussion forum for industry and its customers, academics, government, professional bodies, trade associations and standard-setting bodies. A core group of companies and leading universities has already signed up to the APRES network (Bovis Lend Lease, Building Research Establishment, Responsible Solutions, URS Scott Wilson, University of Bath, University of Nottingham, University of Warwick), together with over 40 Associate Members.
- **Ready for responsible sourcing – SME training package:** The aim of this research project was to develop a new suite of training resources on the responsible sourcing of construction products; see [www.responsible-sourcing.co.uk](http://www.responsible-sourcing.co.uk). It targeted both demand-side specifiers (i.e. architects, engineers and contractors) and supply-side manufacturing enterprises. It was funded by Sustainable Construction innovation Network (iNet), which is funded by East Midlands Development Agency (*emda*) and the European Regional Development Fund (ERDF); the project partners were Loughborough University, the University of Nottingham and Responsible Solutions.

## RESEARCH APPROACH

This research study used qualitative and quantitative research methods. An online questionnaire survey was developed and circulated to a variety of stakeholders, including: materials manufacturers, contractors, specifiers – including architects and engineers, sustainable construction experts and advisory bodies, trade associations, regional bodies with a construction and/or sustainability remit; small and medium enterprise (SME) networks and peer/industry networks. A total of 51 organisations responded to the survey, which was then complemented by 15 interviews with key specifiers (contractors and designers) and manufacturers to discuss issues in more detail; their roles are shown in Table 1. The majority of informants were senior level staff; over 20 were from contracting companies, 15 were based in material/product manufacturers and 12 were from specifiers.

**Table 1:** Respondents’ roles within their organisations.

Position	Number of citations by respondents	
	Survey	Interviews
Director/Manager/Responsible/Head	28	13
Supervisor/Leader/Trainer	3	-
Champion/Executive	3	-
Advisor	2	-
Designer/Engineer	5	-
Researcher/Scientist	2	1
Lecturer	1	-
Other	1	1
Unknown	6	-
<b>Total</b>	<b>66</b>	

Based on the objectives, the project team brainstormed a list of possible topics that the industry survey and interview instruments might include. These included: “*Company profile*”, “*Corporate sustainability and RS*”, “*Manufacturing and specifying for RS*”. From this list, draft questionnaires were developed and piloted with ten industry experts and experienced researchers. The answer formatting options to forms were further examined for fitness-for-purpose; clarity and variety.

The main benefits of using an online survey tool are its ability to present questions in a neat and uniform way, offer a gateway for data collection and perform basic analyses on the received data. This enabled the data analysis to be fairly straightforward and descriptive, although a cross-tab was used to examine and differentiate answers. An interview protocol for asking questions and recording information during the qualitative interviews was designed. This protocol comprised a heading, instructions to the interviewer, key research questions; probes to support key questions; space for recording the interviewer’s comments; and space for the researcher records reflective notes, in addition to audio recording of the interviews. The data were transcribed, prepared for analysis and organised categorically and chronologically, reviewed repeatedly and continually coded. The transcribed data were then sorted and categorised into a number of themes under headings, as per Miles and Huberman (1994). In all cases, a comparison was made between survey and interview responses; the results section which follows attempts to draw together some of the key descriptive statistics and major themes; it is followed by a discussion which relates our study to relevant literature.

## RESULTS

### Understanding the scope of RS

The survey and case study interviews showed a range of understanding and awareness levels of RS in the UK construction industry, despite the freshness of the subject. Respondents understood RS to be part of sustainability, ethics, standards, quality and supply chain management, as shown in Table 2.

**Table 2:** Respondents’ comments on the scope of RS.

Theme	Respondents’ statements
Sustainability	Environment Renewable sources; Sustainable products; Low transportation CO <sub>2</sub> ; Depleting natural resources; Production/transportation; Manner that minimises impact on the environment; Least impact on the environment; Environmental dimensions; Respect the proper definition of sustainability ; Waste recycling; Use and re-use until final disposal; Responsibility for sourcing materials and products; Recycled and recyclable materials; Balanced societal/environmental impacts.
	Society Local sources; Locally sourced; Provide work for local community; Maximise return for the people involved; Exploited individuals/resources; Enhance the social conditions of the supplying community; Ensure that people have not been exploited; Social dimension; Exploiting vulnerable people; Positive impact on life.
	Economics Commercial dynamics; Price competitive; No limited categories of expenditure; Economical dimension; Economically and financially sound.
Ethics	Transparency; Fair trade; Responsible manner; Suppliers are treated ethically and with respect; Fair pay for workers; Ethical suppliers; Wages and working conditions; Ethos of supply chain management; Assurance;

	Principles; Guarantee; Being sustainable and ethical; Ethical, sustainable approach to procurement; Responsible manufacturer; Ethical and fair price; Ethically resourced; Products manufactured in an ethically sound way.
<b>Standards</b>	Sustainable policies and standards; Aspiration laid down in the Code for Sustainable Homes; Labour standards; Meeting legislation.
<b>Quality</b>	Standardisation and certification by 3 <sup>rd</sup> party; Fully legally compliant, transparent fair and third party certified; Health and Safety.
<b>Supply chain management</b>	Approach an organisation takes to manage procurement activities; Ordering only what you need; Procuring materials and products; Process of supply chain management; Point of origin and method of production; Understanding whole supply chain; Product stewardship; Holistic approach to managing the social, environmental and economic impacts; Supply chain; Business requirements; Stage of the supply chain; Effective management; Appropriate environmental, legal, ethical quantity controls in place; Vetted and analysed products and services.

One interviewee stated that RS meant: *“the product and user business are performing at high ethical, quality and safety standards for both business and supply chain”*, whereas others linked this with compliance, i.e.: *“sourcing the product and materials to meet with national and international standards... we look at environmental, social, ethical, health and safety issues related to manufacture and supply”*. Of the 36 survey respondents who opted to provide a definition, 18 cited sustainability and 11 mentioned supply-chain management; several gave definitions which centred on procurement, for example: *“purchasing from a supplier that can demonstrate its products are manufactured ethically”*.

### **Examining the drivers and benefits**

More than two-thirds of the interviewees stated that RS was highly important to their business. It was the manufacturers that used phrases such as *“extremely important”* and *“very important”*, whereas specifiers (i.e. contractors and designers) described RS as *“important”* or *“customer-led”*. More than half (54%) of the survey respondents believed that RS would be *“Of utmost importance”* in the next five years and 70% that RS was going to be beneficial to their core business activities. Manufacturers felt that *“having BES 6001 has made it easier to sell more even in a very difficult year”*; it had also enhanced their reputation and confidence. Of the 51 survey respondents, 29 described the benefits of RS; for example, being at the forefront of the market, gaining competitive advantage, showing evidence of duty/CSR and helping towards continuous improvement. One respondent captured the benefits by saying: *“(RS) can improve the rigour of procurement processes, prompt a fuller consideration of whole-life costs, provide a basis for joint improvement activity with suppliers and build reputational capital.”* One of the interviewed manufacturers explained the background to this: *“If you take the main drivers of responsible sourcing, some of these came out from BRE documentation in terms of things like BREEAM, the Government’s Code for Sustainable Homes... (for which) you get credits for choosing products coming from RS schemes for the key elements of the building.”* Hence, the manufacturer gains a better corporate reputation and more sales from having certified products and the client/building owner attains a higher score in BREEAM, CSH and CEEQUAL assessment schemes by selecting such products. For example, one manufacturer had sought accreditation specifically to gain recognition for products in the Code for Sustainable Homes and increase sales, he said: *“We are very focused on having green credentials. Knowing that we had such a high percentage of recycled material we decided to try for the next level. Also we have a management team that is ready... if you don’t have that it wouldn’t have worked; it has to come from the top”*.

### **Taking responsibility for RS on a project**

According to the survey respondents and interviewees, clients and specifiers shared responsibility for the selection of RS products on a project. Many felt that everyone had a role to play, e.g. one manufacturer said: *“everybody in the supply chain has a degree of responsibility... the client has responsibility in procurement because (and) the specifier’s responsibility is in specifying the right material.”* 53% of the survey respondents thought clients should take the lead, followed by 12% citing architects and 6% selecting contractors. Indeed, by probing such answers, most interviewees tended to converge on specifiers and/or clients as particularly important. There was a clear sense that some clients were more likely to take a leading role (as ‘early adopters’), whereas others would latterly be driven by cost, legislation or market forces. Contractors believed that architects and clients were driving the process, but were not always convinced that these parties fully understood what RS meant and in any case, their specification was unlikely to go much further beyond a basic product specification; it would often fall to the contractor to actually select a particular manufacturer and product line. One contractor explained: *“the Client or specifier has the most power to drive RS. We, as a main contractor, do influence that products used are responsibly sourced if we think they (client/designer) are not using products as they should be – we try to influence our clients to source responsibly where we can”*. This shows that some major contractors are very proactive on RS and are trying to create stretch goals for their clients.

### **The current state of assessment and certification for RS**

The survey respondents were asked about their awareness of RS credits within the three assessment schemes mentioned previously; 67% were aware of RS credits in BREEAM, 50% CSH and 33% CEEQUAL (although the latter could be due to a bias towards building contractors rather than civil engineering contractors in the sample). This indicates an important gap in specifiers’ knowledge of RS and points towards a key barrier to RS becoming more mainstreamed. Furthermore, the product certification standard (BES 6001) was launched in 2008, but less than half of the survey respondents (44%) had heard of it and only eight had actually specified materials with a BES 6001 certificate. That said, more than half of them were actually aware that aggregates, cement, concrete products and steel reinforcement were available through RS schemes; one even thought that there should be a responsibly sourced option for all product types. Seven manufacturers with certification to BES 6001 were included in the interview programme to ensure a balanced response. They considered certification to be an important addition to the construction industry, but raised concerns about the cost and process of attaining the certificate and the fact that RS accounts for only a small percentage of credits available in schemes like BREEAM, CSH and CEEQUAL. That said, the interviewed manufacturers perceived BES 6001 as vital in ‘setting the bar’ at an appropriate level to ensure differentiation, saying that the standard has to remain meaningful. The interview findings also showed that, apart from ‘point scoring’, there are a broader range of driving forces for manufacturers to seek RS accreditation, some of which are internal and the remaining are external (see Table 3); these include corporate reputation, competitors, stakeholder and customer pressure.

**Table 3:** Drivers for seeking responsible sourcing accreditation.

Driver themes	Respondents' statements
<p><i>Main drivers:</i></p> <p><b>Internal</b></p> <p>Self confidence Ambition Improve Marketing Recognise strategies</p>	<p>To show what we can do; to be seen as leader in the market; ambition to be No. 1; to identify how to get better; framework for managing our procurement in certain aspects that is better for the business; our intention to increase sales; recognition of Code for Sustainable Homes; we are very focused on having green credentials; we have a management team that is ready to drive that... it has to come from the top.</p>
<p><i>Main drivers:</i></p> <p><b>External</b></p> <p>Commercial advantages Enhance strategies Market pressure Competitiveness</p>	<p>Marketing and commercial advantages; to meet with strategies and standards; UK Strategy for Sustainable Construction; we hold standard certifications we decided to go for another one that gathers them all to answer all questions; market place pressure; stakeholder pressure; drive to remain competitive.</p>

There is clearly an increasing demand for RS-certified products in the marketplace: during the time of the research, the number of BES 6001 certificates issued rose from 10 to 43 by early 2011. Although many had been attained by large, multi-national materials companies, the most recent additions to the BES 6001 list (perhaps the start of the ‘early majority’) include small businesses and specialist contractors, indicating a broadening of the adoption of the scheme. Several interviewees have also predicted that the shape of the construction materials supply-chain will be fundamentally changed by RS within the next few years, suggesting that product companies without certification will be at risk of losing market share.

## DISCUSSION – CRITICAL RESEARCH DIRECTIONS

The results from the industry survey and interviews now enable us to identify a number of important areas that warrant further consideration and research effort, a few of which are outlined here.

There was concern that the construction sector is yet to alight on a precise definition of what it means by RS; descriptions oscillate around sustainability, supply-chain management and ethics, with some informants making a clear link to corporate social responsibility (CSR). For example, one interviewee suggested that: *“From my point of view about the responsible sourcing is a sort of moral issue. It is about doing the right thing, having the visibility of issues that you have in your supply chain and actually how you manage those”*. This confirms Loosemore and Phua’s (2011) view that the construction industry commonly holds a duty-based (deontological) view towards its responsibilities. Indeed, one of the survey respondents said RS was all about: *“showing how responsible we are... it is our duty to give something back and be advocates for the correct procurement of materials”*. The emerging literature on ethics and CR, such as Murray and Dainty (2009), Fewings (2009) and Loosemore and Phua (2011), demonstrates a real growth in this research area and it is clear that RS in the construction products supply chain can make an interesting contribution to the debate. For instance, our research confirms that a ‘compliance’ approach towards business ethics is still prevalent in construction and that companies are a long way off from Loosemore and Phua’s (2011:99) integrity-based approach, with its *‘long-term changes to espoused and enacted values’*.

Certainly the 'early adopters' of RS consisted in the main of large companies with integrated management systems and certification for quality, environmental and health and safety management already in place (e.g. ISO 14001, 2004); these features made the BES 6001 assessment process somewhat easier for them because they already had the right systems in place. The importance of management systems is echoed by Holton et al (2010) in their recent study of sustainability management in material manufacturing companies; these systems act as a vital stepping stone towards better engagement with the subject, improved capabilities and market reputation. It is pertinent that Jones et al's (2010) concern about a lack of focus on the social aspects of sustainability in construction companies (in the US) could be allayed, at least in part, by a greater recognition that RS includes a robust examination of social and moral issues.

Some of our respondents believed that transparency on performance was the common requirement for a product to be described as responsibly sourced. Interestingly, the notion that business should be more transparent and accountable is now firmly embedded in international practice. Commentators like GRI (2010:43) and Lueneberger and Goleman (2010:7) go further, respectively foreseeing 'integrated storytelling' and 'radical transparency' in years to come, which only serve to reinforce the potential future role for RS as an important mechanism for construction product businesses. We can envisage greater and greater pressure on companies and projects to disclose information on environmental and social indicators in a live and interactive way; this opens up opportunities for IT support tools to help companies communicate their RS performance with stakeholders.

Finally, McKinsey's (2010) recent survey of 1,946 global business leaders (from a range of countries and sectors including construction and engineering) confirms that companies for which sustainability is a top-three priority are much more likely to actively seek opportunities and embed sustainability into business practices. While this is a truism, some of our interviewees demonstrated a lack of knowledge and understanding in some key areas of sustainable construction, which indicates an important gap between corporate values and operational expertise on the ground. In Accenture's CEO study and strategy to 'create the conditions for a new era of sustainability', Lacy et al (2010:48) call for new concepts of value and performance to be embedded at organisation and individual levels, which suggests that any disparity in understanding could prove to be a major pitfall for RS.

## **CONCLUSIONS AND RECOMMENDATIONS**

Responsible sourcing is an effective means of ensuring that all three aspects of sustainability are managed in the construction supply chain, with particular respect to the procurement of materials. It is already embedded in commonly used sustainability assessment tools and the list of responsibly sourced materials is growing steadily:

(see <http://www.greenbooklive.com> for a list of certified products) . RS is part of sustainable procurement and helps supply chains to audit and improve transparency and traceability. This is an important development for the construction industry, because it rewards those who take their roles in the ethical supply-chain seriously and represents a major step towards better inclusion of sustainability parameters in decision-making on materials.

RS is a complex issue composed of social, ethical and moral, and economical factors which requires the involvement of manufacturers, clients, contractors and designers. However, there is an imbalance in the supply-chain at present with larger manufacturers being well-informed

and pro-active, but very few small companies participating in RS certification. While our findings suggest that many people have heard of ‘responsible sourcing’ of construction products, there was a lack of awareness of certified products and inconsistent awareness of credits for responsible sourcing in BREEAM, the Code for Sustainable Homes and CEEQUAL. It was clear that people did not fully appreciate which materials are available through certified schemes. Findings demonstrated that currently there is no one party that should be solely responsible for implementing RS, as everyone is involved in the process. However, it is the clients and specifiers (i.e. contractors and designers) who are thought to have the most influence, due to their critical involvement in selecting construction products. It is ironic then that these groups do appear, at least on the face of it, to have a lesser understanding of RS schemes than manufacturers do at present.

These findings form an important early part of the evidence base on RS in construction; the study certainly sits within the realm of sustainability, CSR and ethics research, but specific concerns around definitions, scope, roles, SME participation, procurement, management systems and transparency are specific and need to be addressed if responsible sourcing is to make an important contribution to reducing the impacts of the construction supply-chain.

## **ACKNOWLEDGEMENTS**

The authors would like to thank the project funders, network partners, and the survey and interview participants. Their time and input has been very much appreciated and valued.

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