

Responsible sourcing in construction projects: can anything be learned from 'Fair Trade' schemes?

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ABSTRACT

Building and civil engineering companies are subject to growing stakeholder expectations on accountability, transparency and legitimacy, arising from a range of environmental and social concerns, e.g. energy use, labour and welfare conditions, bribery and corruption and global materials supply chains (i.e. sourcing from countries with poor records of human rights). One solution is responsible sourcing (RS), which provides a means to manage and ensure the attainment of sustainability objectives by procuring materials with a certified provenance. RS sits within an organisation's procurement policy and purchasing practices, and addresses a range of environmental, economic and social considerations. Hence, a client, contractor or manufacturer can make use of RS as a means to publicly demonstrate its sustainable and ethical sourcing credentials. The UK government requires that 25% of construction products shall be from RS schemes by 2012; 30 major contractors have also agreed an aspirational target of 100% for materials like aggregates, metals, steel, concrete, bricks and glass, by 2015. In fact, RS mirrors the development of voluntary ethical trading initiatives (VETI) witnessed in other sectors, such as food and fashion, in which similar concerns, i.e. child labour, pollution and working conditions, propelled companies to move towards fairer, safer and better production. Now, thousands of products from these sectors are certified with globally-recognised VETI schemes, such as FairTrade and Rainforest Alliance. This paper will identify the particular stimuli influencing the construction sector to seek out VETI schemes, through a review of literature and recent research. It will discuss the utility and validity of VETIs in the context of the construction industry. The paper will conclude with reflections on RS and VETI schemes in the context of corporate responsibility and identify some key lessons for the UK construction sector.

KEYWORDS

Construction industry; corporate responsibility; fair-trade; responsible sourcing; sustainability.

INTRODUCTION

Responsible sourcing (RS) of construction products offers a novel way to improve the implementation and traceability of sustainability objectives throughout the project supply chain (Glass et al, 2011). 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, such as BREEAM (www.breeam.org) and CEEQUAL (www.ceequal.org). The construction industry is often subjected to stakeholder concerns about environmental impacts, labour and welfare conditions, bribery and corruption (Murray and Dainty, 2009; Loosemore and Phua, 2011), and there is an opportunity to address these problems through sourcing products more responsibly. Although there is no one single definition for RS of construction products, it refers to the management of sustainability issues associated with materials in the construction supply chain, often incorporating an ethical perspective. The aim of this paper is to add to the growing evidence base on RS in construction by considering recent research on responsible sourcing and drawing lessons from voluntary ethical trading initiatives (VETI) schemes from other sectors.

RESPONSIBLE SOURCING IN THE UK CONSTRUCTION INDUSTRY

Use of the term 'responsible sourcing' (RS) is relatively new; it comes from the '*Strategy for Sustainable Construction*' (HM Government, 2008), which encourages the construction industry to select responsibly sourced products. RS 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; hence, it nests within an overall ethos of sustainable procurement (BSI, 2010). RS can be perceived as taking an ethical approach throughout the supply chain, but does not pertain only to social issues. Baumgartner (2011:785) confirms that '*Sustainable development (SD) has, in its foundation, normative ethical as well as practical aspects. Regardless of the context of a system, problem or approach, SD is about enhancing the possibilities for improvement in the quality of life for all people on the planet...*' 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. 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 first framework standard for responsible sourcing, BES 6001 (BRE Global, 2009), which 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*'.

The '*Strategy for Sustainable Construction*' (HM Government, 2008) 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*'. Two such documents now exist:

1. BES 6001 *Framework standard for the responsible sourcing of construction products v2* (BRE Global, 2009) covers: Organisational management (responsible sourcing policy; legal compliance; quality management system; supplier management system; Supply chain management requirements (material traceability; environmental management systems; health and safety management systems); Environmental and social requirements (greenhouse gas emissions; resource use; waste management; water extraction; life-cycle assessment; transport impacts; employment and skills; local communities).
2. 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, covering similar ground to BES 6001, above.

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) and the Code for Sustainable Homes (CSH, see 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).

Currently, there is a genuine lack of a research agenda on RS and a very small body of evidence about its current status in the construction industry (Glass, 2011 forthcoming; Glass et al, 2011a). Glass et al (2011b, forthcoming) found that although certification schemes exist, the majority of certificates are held by major companies rather than SMEs and there is no indication of how companies can best engage with RS practices. They used an online survey (with 51 respondents) and personal interviews with 15 manufacturers and specifiers to explore the current scope and definitions of RS; drivers and benefits; who takes responsibility for RS on projects; the current state of RS assessment and certification; and the role of company size and adoption in small and medium enterprises (SMEs). 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. The main findings were:

- More than two-thirds stated that RS was highly important to their business and 70% that RS was going to be beneficial to their core business activities in the future.
- 53% of the respondents thought clients should take the lead for promoting RS, followed by 12% citing architects and 6% selecting contractors.
- Respondents understood RS to be part of sustainability, ethics, standards, quality and supply chain management. Their comments showed good alignment with content in BES 6001 (BRE Global, 2009).
- More than half were aware that aggregates, cement, concrete products and reinforcement were available through RS schemes.
- The main internal drivers for RS were company ambition, improving marketing messaging, acknowledging and positioning against industry strategies
- The main external drivers for RS were perceived competitive advantage, pressure from industry/ government strategies, market/customer and/or peer pressure from within the sector.
- 75% thought that large companies were at an advantage, because small companies generally lacked the resources and expertise to adopt RS.

This is useful new data, but with the UK Contractors' Group pursuing a target of 100% of common building materials to be procured from RS schemes by 2015, there could be serious implications for material supply-chains if suppliers fail to engage with this agenda. It would therefore be constructive to examine comparable approaches in other sectors to establish whether there are lessons to be learned that could help the construction industry.

CHARACTERISING RS AND VOLUNTARY ETHICAL TRADING INITIATIVES

Within the construction sector, Mustow (2006:19) called for industry bodies to develop robust schemes and for manufacturers to use product labelling to help the industry's customers practice more ethical purchasing behaviours, adding that '*construction industry purchasers have only a limited amount of information to determine the ethical credentials of the products they buy*'. New (2004:271) importantly asserts that '*...the notion of supply chain ethics cannot be swept away... buyers in particular will share some responsibility for the actions of suppliers*'. But Meehan and Bryde (2011:102) outline the problem of purchasing from global supply chains, noting that: '*many supply chains transcend local and national boundaries, raising the possibility of inconsistency and conflict when making sourcing decisions*'. Indeed, the problems of managing risk in this context are explored by Christopher et al (2011), who studied a range of industries (interestingly, not construction) and although there was variability, found two strategies being used to mitigate risks:

1. Global sourcing and network re-engineering (e.g. re-evaluating sourcing criteria and supply-base network design; mapping and critical path analysis)

2. Creating a global sourcing risk management culture (e.g. establishing global sourcing continuity teams; board-led responsibility and leadership)

In some sectors (such as fashion, food and mining), companies and industry partnerships have already reacted to the management of global sourcing risks around about environmental degradation, child labour, unsafe practices, bribery and corruption by setting up ethical or voluntary codes of conduct, called voluntary ethical trading initiatives (VETI). Specific examples include well-known schemes such as Fair Trade and Rainforest Alliance, plus certification schemes for materials such as the Forest Stewardship Council (FSC). In some sectors, although reputable schemes exist, the concept of responsibility in others has been called into question. For example, in the jewellery industry, the Kimberley Process has attracted positive publicity because it is attempting to eliminate the sale of conflict diamonds, but the Responsible Jewellery Council has received criticism for insufficient traceability and auditing in the supply chain.

Ruben and Zuniga (2011) explain that VETIs came into being via standards to guarantee minimum requirements for trade in international commodities such as coffee. They note that VETIs, such as Fair Trade, guarantee producers a minimum selling price and provide a contribution towards development programmes; e.g. these have a share of perhaps 25% of the global coffee market. But there are competing VETI schemes with several major differences in procedures and criteria between voluntary standards (Fair Trade), sector-wide standards (Rainforest Alliance) and corporate standards (Starbucks Cafe Practices). Their study of coffee production in Nicaragua found that Fair Trade helps to create market access by guaranteeing prices, but 'private' schemes are more helpful later, for upgrading systems and management regimes. Hence, they argue there is scope for more than one VETI standard to be operative at any one time. The success of ethical sourcing codes of conduct will depend on reputational vulnerability and the power of different members in the network, as well as the number of links in the network (Roberts, 2003:168). This is echoed by Wild and Zhou (2011), who established that although ethical procurement in humanitarian supply chains was driven by the potential for improved profits, success was highly influenced by communication and trust. They highlight the important role played by the different value sets held by various parties in a supply-chain, proposing a diagnostic tool for assessing supply-chain risks and ethical risks.

Part of the problem is that people do not understand that fair-trade moves beyond the notion of fair-pricing to incorporate broader social and ethical considerations, such as labour rights and welfare and stakeholder engagement, as espoused in ISO 26001 (BSI, 2010). Indeed, Ciliberti et al (2011) found that more broadly-configured codes of conduct (e.g. SA8000 from Social Accountability International, www.sa-intl.org) can improve communication flows, particularly on intangible aspects, and reduce moral hazard problems in supply-chains by improving consistency and transparency. Supplier data exchange and auditing schemes, such as Sedex (www.sedex.org.uk) and StringTogether (<https://stringtogether.com>) can help (the equivalent in construction is Achilles Building Confidence (<http://www.achilles.com/en/uk/sectors/Construction/BuildingConfidence/>); these are used by companies to handle detailed information on the provenance of materials, products and services, but auditing criticisms are common (e.g. Wild and Zhou, 2011). In the context of sustainability information, for example, O'Dwyer and Owen (2005) analysed 41 assurance statements on corporate reports for independence, engagement scope, standards and criteria employed, materiality, completeness and responsiveness; they had concerns that assurers were providing only what their paymasters required.

It is now possible to present a distillation of these concepts, based on the components of Van Bommel's (2011) framework for the implementation of sustainability in supply networks from an innovation perspective, to identify some key characteristics of RS and VETI schemes, as shown in Table 1.

Table 1: Key characteristics of RS and VETI schemes (after van Bommel, 2011:901)

Van Bommel's dimensions	RS in construction	Other VETI schemes
Pressures and incentives (innovation pressure)	This has mainly come from government and construction sector bodies, through the setting of targets, but some specific clients have been influential, e.g. Olympic Delivery Authority.	Governments, civil society and trade bodies lobbied for fair pricing initially, but more recently it is driven by commercial pressures (e.g. to gain business with global corporates).
Focal company's characteristics	The focal company is normally the product manufacturer, as it is they who are compelled to act to seek certification. However the contractor also acts as a gatekeeper.	The focal company may be the producer (small farmers), but in some VETIs it is a global corporate, such as Starbucks, who operate and control a specific scheme.
Cooperative characteristics of the focal company's supply network	Highly-complex and temporary: construction supply-chains are often one-off project coalitions. A few major clients will have a more long-term approach to procurement.	A variety exist: food supply chains tend to be fairly linear, and are controlled by major retailers. Others like jewellery can be extremely fragmented and politically complex.
Strategies: resign, be defensive or offensive	Some companies have 'resigned' by not seeking certification, whereas others were 'offensive' as soon as the UK 2012 strategy was published.	The degree of market control by some VETIs has meant that in some regions, producers are compelled to join, rather than attempt to operate independently.
Activities (e.g. certification, schemes, codes of conduct, multi-stakeholder initiatives)	Sector scheme standards (e.g. cement, concrete and reinforcement); a framework standard (BES6001); APRES	Again, a variety exists from single – purchaser schemes, to cooperatives and multi-stakeholder schemes. The FairTrade Labelling Organisation exercises a great deal of influence over any such developments.
Performance (environmental, social, etc)	RS emphasises environmental, social, organisational and supply-chain objectives. BES 6001 certification does allow comparison between different materials and different suppliers.	While many VETI schemes focus on labour rights, equality and diversity, social welfare and environmental protection, there is limited comparability between schemes.

Hence, there are some specific characteristics that appear to define RS and VETI schemes:

1. **The drivers** – both original and emergent, how do these emerge and what power do they have? The development path of a scheme will be very much determined by this.
2. **The focal company/ies** – which companies in the supply-chain will take control? Buying power of companies in the supply-chain can drive change, but will they also be prepared to offer support?
3. **Degree of participation in the sector in question** – will companies participate willingly or piecemeal? The success and market penetration of a scheme is politically determined and engagement with the supply-chain to develop a shared view of success is key.
4. **Mechanisms** – how are standards developed and implemented? The practicalities of certification and assurance can be a positive or negative influence.
5. **Intended out-turn measures** – what aspects does the scheme wish to change/improve? There are many possible options, so there is a need for clarity and a distinctive message.

RS AND VETI SCHEMES IN THE META-CONTEXT OF CORPORATE RESPONSIBILITY

Given the context of RS in the construction industry and its purported benefits around market reputation, there is also an argument to examine the potential alignment between existing RS schemes and standards in the UK with VETI approaches used in other industries such as food and fashion, within the meta-context of corporate responsibility. However, this needs to be undertaken through a useful analytical framework which encompasses all aspects of sustainability and sustainable procurement. In this case, Ketola's (2010) corporate responsibility portfolio matrix (specifically the 'holistic responsibility scale' in which '*Fair Business = Fair Supply (Trade) + Fair Production + Fair Sales*') and Heikkurinen's (2010) four-phase model of passive, reactive and proactive, entrepreneurial, and creative corporate responsibility 'aggressiveness', will be used to provide an analytical framework, focusing on RS schemes, as shown in Table 2. This is followed by a critical discussion of the key characteristics of RS and VETI schemes, as listed in the previous section.

Table 2: A CR-focused analysis of the current status of RS schemes in construction (after Ketola, 2010 and Heikkurinen, 2010).

Level of holistic responsibility	Fair trade (supplier side) <i>Based on percentage of purchases</i>	Fair production (employee side) <i>Based on percentage of production</i>	Fair sales (customer side) <i>Based on percentage of net sales</i>
5 (very high) 100%	<i>UKCG TARGET AS DRIVER: In the UK, the 30 construction companies that are members of the UKCG are aiming to purchase 100% of all major construction materials through RS schemes by 2015 – this target will have a significant impact on the supply-chains of projects being constructed by those companies.</i>		
	<i>CR Aggressiveness: Creative CR (on the part of UKCG members aiming to control entire material supply chains).</i>		
	Materials' manufacturers could achieve 100% of output supply via RS goods, for example, if they were to supply solely the UKCG membership, but this is very unlikely.	<i>This is not considered to be a separate heading within RS, and is captured under 'Fair Trade'.</i>	Contractors in the UKCG could achieve 100% procurement of RS goods if they comply with this target.
4 (high) 75-99% 3 (moderate) 50-74%	<i>MARKET LEADERSHIP AS DRIVER: More than 75% of UK concrete production is now understood to be certified under RS schemes, but the availability of materials in this way has not necessarily converted into sales, so the true extent of RS goods being sold is unclear.</i>		
	<i>CR Aggressiveness: Pro-active CR (on the part of concrete suppliers seeking certification and concrete trade bodies providing support to them).</i>		
2 (low) 25-49%	<i>GOVERNMENT STRATEGY TARGET AS DRIVER: The joint-industry government has set a target of 25% of materials to be procured via RS schemes by 2012. This is voluntary, but is being monitored and promoted by the Strategic Forum for Construction.</i>		
	<i>CR Aggressiveness: Entrepreneurial CR (on the part of clients, contractors and others detecting a potential advantage and responding early to the target).</i>		
	Manufacturers are being	<i>This is not considered to</i>	Contractors are reporting

	measured by numbers of products available via RS schemes.	<i>be a separate heading within RS, and is captured under 'Fair Trade'.</i>	the value and volume of products being sourced from RS schemes.
1 (very low) <25%	<p>Currently there are several building materials and standard products (e.g. windows) that are not available via RS schemes. This suggests that there is a difference in the way that RS is perceived by different materials sectors and hence it will be difficult for the UKCG members to achieve their 100% target without specifically addressing these gaps in the supply-chain for construction projects.</p> <p>CR Aggressiveness: Passive CR (on the part of non-certified materials suppliers being laggardly and not responding to government or UKCG prompts to seek certification).</p>		

This section presents some thoughts around the five specific characteristics of RS and VETI schemes defined earlier.

The drivers

In the UK, the drivers for RS in construction have been central government and industry bodies, such as the UKCG. However, it is the manufacturers and materials suppliers who have been most 'aggressive' in promoting their newly-won RS certificates in a bid to win business. The 'early adopters' of RS were large companies with integrated management systems and certification for quality, environmental and health and safety management already in place (e.g. ISO 14001, 2004). Curkovic and Sroufe (2011:87) maintain that ISO 14001 gives '*significant benefits internally and externally*' and in the right hands can be a tool for sustainability in the supply chain. Management systems act as a vital stepping stone for BES6001 (BRE Global, 2009), but the same cannot be said for other VETI schemes, in which the drivers come from pressure groups and civil society. Hence, we see some fundamental differences between RS and other schemes that are focused on labour-rights for under-represented groups. We must also highlight here the need for due diligence on the 'intent' behind schemes – piecemeal approaches that replicate existing standards, duplicate existing supplier audit systems should be avoided; Thorsen and Jeppesen (2011) warn specifically against '*code mania*', i.e. the phenomenon of being hit by a multitude of codes of conduct simultaneously.

The focal company/ies and degree of participation

Segerstedt and Oloffson (2010:351) characterise the construction industry as '*project-based and of a discontinuous nature*', which they say results in specific challenges for supply-chain management because it differs from other sectors, such as manufacturing. This is certainly true, but belies the fact that the broader definition of construction includes construction materials manufacturers. Table 2 shows that some of the more 'aggressive' CR tactics have been put in place by contractors and a small number of manufacturers. While small companies have not been at the forefront of RS, this is starting to change, congruent with Van Bommel's (2011) view that, regardless of size, a company's 'innovation power' will determine its strategy on the development of sustainable products. However, Thorsen and Jeppesen (2011:33) found that SMEs were '*hit harder by the consequences of responsible supply chain practices*' and limited by financial and human resource constraints; Klassen and Fraser Johnson (2004) also note that the partnering required in a material or product chain-of-custody will present them with a challenge. That said, the majority of fair-trade schemes in other sectors comprise thousands of small businesses, often farmers or home-based workers, who are grouped in cooperatives, so there must surely be a commensurate answer for the 90% of the UK construction industry that is comprised of SMEs, such that RS can be 'mainstreamed' (after Salignac et al, 2009).

Mechanisms

Based on the literature, Seuring and Muller (2008) make an important distinction between 'supplier management for risk and performance' and 'supply chain management for sustainable products'. Interestingly RS spans both such concepts because it includes supplier auditing, management systems and life-cycle assessment (although the latter is optional in BES6001), but in fact the potential scope of RS is so broad that there is confusion. This is reflected in the results of Glass et al (2011b) in which they state '*descriptions (of RS) oscillated around sustainability, supply chain management and ethics*'. It is this potential for confusion that underpins the issue of suitable mechanisms for RS and VETI schemes; although BES6001 was developed with stakeholder input, its early years were fraught with criticism, and some companies effectively opted out of responsible sourcing, despite high-level national targets being in place. So, iterative and careful development of the mechanisms behind such schemes appears to be vital and would align with the theoretical position put forward by Salignac et al (2009) who argue that 'mainstreaming' is a more appropriate debate than 'free-trade versus fair-trade'. That said, even the more long-standing of the VETI schemes are still subject to criticism and interrogation. For example, Global Witness (2011) recently released a highly-critical report on the WWF's Global Forest and Trade Network. But, facing the '*triple challenge of long supply chains, diffuse sources and powerful intermediaries*' (Roberts, 2003:168) is not easy and so it is understandable that some schemes will fail to deliver in the eyes of pressure groups.

Intended out-turn measures

RS aligns broadly with the idea that '*Developing and implementing better systems that reduce wastefulness through improved quality of products, processes and systems is the key to a more sustainable society*' (Lindsey, 2011:564), but simply having a certificate does not guarantee that the material or product is responsibly sourced, it provides a score against a framework and is not comprehensive, customisable or values-driven. Moreover, it is restricted to major building products and elements; Appleby (2011:324) recognises that 'there are no credits associated with the responsible sourcing of building services' and what of plant, labour or overalls? The problem here is one of scope; once the scope is clear, then determining the metrics is reasonably straightforward. Laszlo and Zhexembayeva (2011:80) remind us of the importance of scope, when they say VETI schemes simply add a new attribute to a product, enabling companies to differentiate:

'Customers purchase fair-trade coffee at Starbucks for its image, flavour, availability, store ambience, and because it promises equitable payment practices to its coffee producers. Fair-trade does not require Starbucks to be green and socially responsible in other aspects of its business.'

But the current penchant for life-cycle assessment of products, for a more holistic account of sustainability impacts continues: Linton et al (2007:1080) state that: '*(sustainable) supply chains must be explicitly extended to include by-products of the supply chain, to consider the entire life-cycle of the product*'. This ethos has a significant effect on the scope of an RS scheme and broadens the debate from traceability to transparency; interestingly, Glass et al (2011b) found that transparency on performance was the common requirement for a product to be described as responsibly sourced and Ciliberti et al (2011) concluded that codes of conduct are needed to overcome 'information asymmetry' between different actors. The premise that business should be more transparent and accountable is clear. The Global Reporting Initiative (2010:43) foresees 'integrated storytelling' and 'radical transparency' in years to come. This idea firmly reinforces the role for RS and VETI schemes as 'image differentiators' in CR messaging (Heikkurinen, 2010), but there is no clear relationship between RS (product-level reporting) and corporate-level reporting protocols.

CONCLUSION

Responsible sourcing is an effective means of ensuring that all 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. 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 sustainable and ethical supply chain seriously and represents a major step towards better inclusion of sustainability parameters in decision-making on materials. But RS is a complex issue composed of social, ethical and moral, and economical factors which requires the involvement of manufacturers, clients, contractors and specifiers.

Voluntary ethical trading initiatives (e.g. fair-trade schemes) are operating in many other industry sectors; these have some functions in common with RS in construction, and this paper has identified five specific characteristics that can be used to frame a comparison between different schemes. Moreover, the UK context has been examined in the context of CR; while the initial drive for RS has come from government, this analysis has made clear that some contractors and manufacturers have exhibited higher levels of CR 'aggressiveness' towards the responsible sourcing agenda, concurring with Brown et al (2009) who found manufacturers were addressing more sustainability metrics than other parts of the construction sector. Yet this is also tentative evidence of asymmetry in the industry which could compromise the attainment of national targets on RS for 2012 and beyond. Furthermore, there is little to suggest that the influence of trust and value sets has been taken into account into the development of RS standards. For instance, the dearth of RS certification to BES 6001 among SMEs can be attributed at least in part to a lack of participation (and trust?) in management systems, such as ISO14001, but also to the information asymmetry that exists between the UKCG and organisations for small construction companies. Clearly this political context was not necessarily thought through – again, this is a vital dimension to RS and VETI schemes; poor stakeholder engagement and communication is often at the heart of critical 'shadow reports' issued by pressure groups. The construction industry can take some specific lessons from VETI schemes. Industry leaders and heads of supply-chains can look at the models, mechanisms and metrics used in fair-trade schemes to help get small businesses on board and increase participation. There is also an interesting opportunity to look at pricing: if fair-trade is about agreeing minimum prices for goods, then can a similar model be applied to RS products? This also opens up the issue of the focal company in an RS supply-chain: currently, the small producer appears to have very little stake in the development process, but could be highly-influential as the UKCG members strive to achieve 100% RS procurement.

This paper has made some important observations pertaining to the development and promotion of RS in the UK and elsewhere (e.g. in Canada, where a scheme for aggregates is under development, see www.seracanada.ca); there seems to be little doubt that pressure will continue to procure responsibly, although it is questionable who will pay the price for this.

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APRES network (Lend Lease, Building Research Establishment, Responsible Solutions, URS Scott Wilson, University of Bath, University of Nottingham, University of Warwick), together with over 50 Associate Members. Membership is free to anyone interested in responsible sourcing.

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