The Collective Environmental Impact of Small to Medium Size enterprises

While all businesses leave ecological footprints, the impacts of 'big businesses' are large-scale and therefore attract most of the attention (Luetkenhorst, 2004). However, small and medium enterprises (SMEs) have thus far escaped serious scrutiny on this issue. So while major corporations are starting to reduce their environmental impact by adopting significantly changed environmental policies, the vast majority of SMEs have ignored their complicity in the problem. In a recent report, SMEs rated 'reducing environmental impact' last amongst 18 'greatest challenges' they expected their businesses to face in the coming five years (Shirlaws, 2007). For SMEs challenges of a higher priority include depressed economic conditions, taxation and other financial penalties and impositions, and the retention and recruitment of a skilled workforce (Wills, 2003).

In order to address business impacts on the environment, a focus on SMEs is critical as they make up the largest business sector in every economy in the world (Culkin & Smith 2000), and produce the majority (up to 60%) of the world's economic output (Gerstenfeld & Roberts, 2000). They dominate many important industry sectors (e.g., retailing, service, construction and agriculture), and form crucial forward and backward links in the supply chain of large scale capital intensive manufacturing industries such as automotive, mining, marine, and defence (Robinson & Pearce, 1984; Abdullah, 2000; Wang, Rowe & Cripps, 2006). Since the 1970s, SMEs have created the majority of new jobs in OECD countries, and provide 40%-80% of all employment in these countries (OECD, 1996). In Australia, 99% of all actively trading businesses (over 1.95 million enterprises) are SMEs (i.e., businesses with less than 200 employees) (Australian Bureau of Statistics, 2007). These businesses employ 3.3 million people or 47% of the private non-agricultural sector workforce (Australian Bureau of Statistic, 2004).

Having described the importance of the SME sector, the key problem is that most SMEs do not perceive themselves as having a substantial impact on the environment (Redmond, Walker & Wang, In Press). In addition, the environmental impact of individual SMEs tends to be small-scale and highly dispersed and, therefore, it is often difficult to identify the nature and sources of the environmental impact. Consequently, an insufficient number of SMEs have engaged – or been engaged – in environmental impact management to any significant extent (Condon, 2004; Luetkenhorst, 2004; McKeiver & Gadenne, 2005; Schaper & Raar, 2001; Williams, Dingle & Annadale, 2000). Recent Australian research found that only 26% of SMEs had environmental plans (Redmond, Walker and Wang, In Press). However, given their dominance in absolute numbers, the ecological footprint imposed collectively by SMEs is enormously significant. They are more 'pollution-intensive' than 'big

businesses' (Blackman, 2006) and although the actual environmental impact of SMEs is difficult to assess, estimates suggest that the contribution of this sector to pollution may be as high as 60% to 70% of total pollution levels (Stokes, Chen & Revell, 2007; Hillary, 2004; Revell & Rutherfoord, 2003). Soil contamination, air , noise and visual pollution, water and energy consumption and release of untreated industrial effluent causing surface and ground water contamination, are some examples of SME environmental impacts that cumulatively are considered substantial (NSW Business Chamber, 2007).

It is therefore imperative that SMEs are specifically targeted and actively engaged in the management of their environmental impact (Condon, 2004; Luetkenhorst, 2004).

Not surprisingly, there are significant impediments to engaging SMEs in environmental impact management. In the first instance, most SMEs lack the capital and knowledge resources and infrastructure to monitor current practices and implement new methods of operation. Environmental impact management is generally a peripheral function of most SME operations and accordingly, has a lower importance than core business activities which demand and compete for time and resources (Walker & Redmond, 2006). Environmental impact management is further given short shrift when most SMEs are subjected to minimal, if any, environmental legislative/regulative compliance requirements (Revell & Blackburn, 2004). In a survey conducted by Wills (2003), it was evident that small business operators wanted more proactive regulation, environmental information and professional advice from local and state government authorities due to the competing business demands of core activities and environmental compliance concerns. However, enforcement of individual SME compliance is costly due to the sheer diversity and number of enterprises in the sector (Blackman, 2006) and consequently, engagement in environmental impact management by SMEs is often self-regulated and discretionary.

While a moral case, based on the idea of social justice and the need for businesses to act ethically within their community (Elkington, 2001), could be made for SMEs to engage in environmental impact management, this is unlikely to happen as most SMEs lack knowledge about the environment *per se* (Condon, 2004; Luetkenhorst, 2004; Simpson, Taylor & Barker, 2004). Specific gaps in the knowledge of SME owner-managers have been found, for example, in relation to information on marketplace changes that make sustainability an opportunity to innovate, or even more basic gaps such as the environmental impact management options available (Condon, 2004; Walker & Redmond, 2006).

Second, the 'bottom line' is crucial to the viability of all businesses. While proponents argue that resource allocation efficiencies and productivity gains can accrue from formal environmental management systems, SMEs have remained largely unconvinced of their ability to reap such potential benefits (D'Souza & Peretiatko 2002; Revell & Blackburn 2004; Simpson, Taylor & Barker, 2004). This is because most SMEs simply do not have the critical levels of scale needed to achieve such gains, and are unable to

effectively translate such investments into a sustainable long-term competitive advantage (Simpson, Taylor & Barker, 2004). Additionally, the cost of investing in formal environmental management systems is generally non-transferable to customers in terms of added benefits (Simpson, Taylor & Barker, 2004). All of these factors diminish the incentive for SMEs to engage in environmental management.

Third, although the extant literature is unified in calls to engage SMEs in environmental impact management (e.g., Friedman, Miles & Adams, 2000; Gabel & Tillman, 2005; Leutkenhorst, 2004; Naffziger, Almed & Montagno, 2003; Simpson, Taylor & Barker, 2004), few practical solutions are actually offered. For expediency, there is an expectation that lessons, practices and tools from 'big businesses' would translate to SMEs and be easily implemented. For example, it is recommended that SMES use formal environmental management systems. However, it has been determined that SMEs do not use these environmental management tools due to a:

> "*Lack of awareness and/or denial that they cause significant environmental impacts; resource constraints (including financial, time and personnel); lack of incentives; inappropriate tools and techniques and a lack of skills, and lack of guidance and support on how to implement an EMS that would meet the requirements of ISO14001 and the European Union's Eco-Management and Audit Scheme (EMAS).*"Baxter (2004), p.13.

Hillary (2000, p.23) concurred by stating that while both ISO and EMAS certification and accreditation "purport to be relevant and applicable to SMEs", these are used by less than 1% and by "miniscule proportions" of SMEs in the UK and EU respectively.

The primary reason for this failure is that "small businesses are not just scaled down versions of large ones" (Burns 1996, p.4). SMEs are qualitatively different (such as in their predominant use of informal rather than formal systems), and any transfer of practices requires adaptation rather than imitation (Cagliano, Blackmon & Voss, 2001; McKeiver & Gadenne, 2005).

To engage SMEs in better environmental management, it is important to provide SMEs with appropriate environmental impact management solutions that are not just relevant to their business needs but also applicable to their operational characteristics. These solutions have not yet been offered (Hillary, 2000).

This proposal aims to engage SMEs in environmental sustainability by developing strategies to encourage them to participate in management of their businesses contribution to negative impacts on the environment. This is different to the traditional approach to environmental management in business because this proposal is focused on influencing the environmental practices of SMEs rather than on large organisations that traditionally have greater legislative impetuous or economic resources to address environmental impacts.

Moreover, this proposal will facilitate a more appropriate interface between established environmental management approaches and SMEs. Rather than expecting an SME to take the initiative to engage, comply and act of their own volition, it is proposed that a multitude of small projects will be developed to transfer knowledge to this important sector of the community in a way that will build their capacity to engage. In particular, these projects will be directed toward practical, operational areas that are specific to SMEs needs and behaviours. It is proposed that this approach will introduce SMEs to environmental management without overwhelming them and will therefore encourage their progression towards more substantive environmental management practices over time.

This proposal will provide, through a variety of localised projects, effective practical solutions to what is a critical global environmental challenge. It has significant potential to provide positive practical outcomes for government, industry and the environment in Australia.

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