

Targeting Improvement in High Environmental Impact Products & Services

Executive Summary

Global View Sustainability Services Ltd.

A research report completed for the Department for Environment, Food and Rural Affairs

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- Sustainable Product Design, Development & Communications
- Green and Ethical Supply Chain Management.

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Executive Summary

As part of their Sustainable Consumption & Production (SCP) programme, Defra are developing their strategic policy to increase business uptake of product focused assessment and management approaches, building on existing Life Cycle Assessment (LCA) and Carbon Footprint standards. To inform this strategy, this project determined the high environmental impact product groups, the key influencer organisations within these, the status of existing activities per group and the key next steps to support uptake where appropriate.

The project aims were to:-

- Determine the high environmental impact product groups based on existing UK, EU and international evidence;
- Analyse the status of existing activities for environmental product assessment and management in each identified product group to determine whether they were at “new”, “emerging” or “advanced” stages and hence the level of support intervention that would be suitable;
- Identify the organisations within the identified product groups most suited to drive product supply chain improvements (“influencer” organisations).

The project method used was a desk top analysis supplemented by telephone interviews with key representatives from existing activities. The main audience for this report is Defra and while the report is written to be accessible to a wider audience it does assume some existing knowledge on sustainable products.

The headline conclusions and next steps identified to increase product focused assessment and management approaches in business and achieve effective environmental impact reductions across supply chains are summarised below. These are detailed in the **Conclusions (2) and Results (3-5)**.

1. HIGH ENVIRONMENTAL IMPACT PRODUCT GROUPS

Based on the latest evidence, the product groups and examples within them that have the most significant environmental impacts are outlined in **Figure 1**.

Figure 1: High Environmental Impact Product Groups



Many of these product groups are already recognised as priorities in EU and UK products policy based on the significance of the environmental impacts from their production and consumption. In particular, this is the case for the following which are consistently identified in the evidence:-

- **food & drink** (meat & dairy, high palm of using foods and wider crops);
- **transport** (cars and planes);
- **buildings** (homes and commercial, envelop of roof, doors, window and sealing; construction and demolition);
- **Electrical & Electronic Equipment** (space and water heating, Consumer Electronics and ICT with data centres being a high and increasing UK consumption area).

In particular, for evidence based on EU consumer expenditure food & drink, private transport and housing (building and appliances) rank as having the largest impact over a range of environmental indicators. The evidence review corroborated these product groups as priorities but also identified **tourism** (hotels and planes), **eating out** (food services, catering, restaurants), **chemical products** (chemicals, fuels, batteries), **timber products** (paper & pulp, furniture and building products e.g. flooring), **packaging**, **clothing & textiles** and **personal care products** (high palm oil using e.g. soaps as well as detergents, shampoos and cosmetics) as product groups where the evidence shows significant environmental impacts. It was not within the project scope to rank the priority of these based on the significance of the impact. However the product priorities per specific environmental impact were determined for GHG emissions, resource depletion (energy, water, minerals, metals, land, biomass and species extinction), waste and toxicity. These are detailed with evidence sources in **Results: High Impact Product Groups** (3.3).

To increase product focused assessment and management approaches in business, focusing on these product groups with the most significant environmental impacts is a key strategy in ensuring effective environmental improvement. While EU and UK SCP policy and Defra's SCP Programme focuses on several of these products and services already, some

realignment can be done to ensure all product groups and examples are included. Key examples to add in line with existing activities are:-

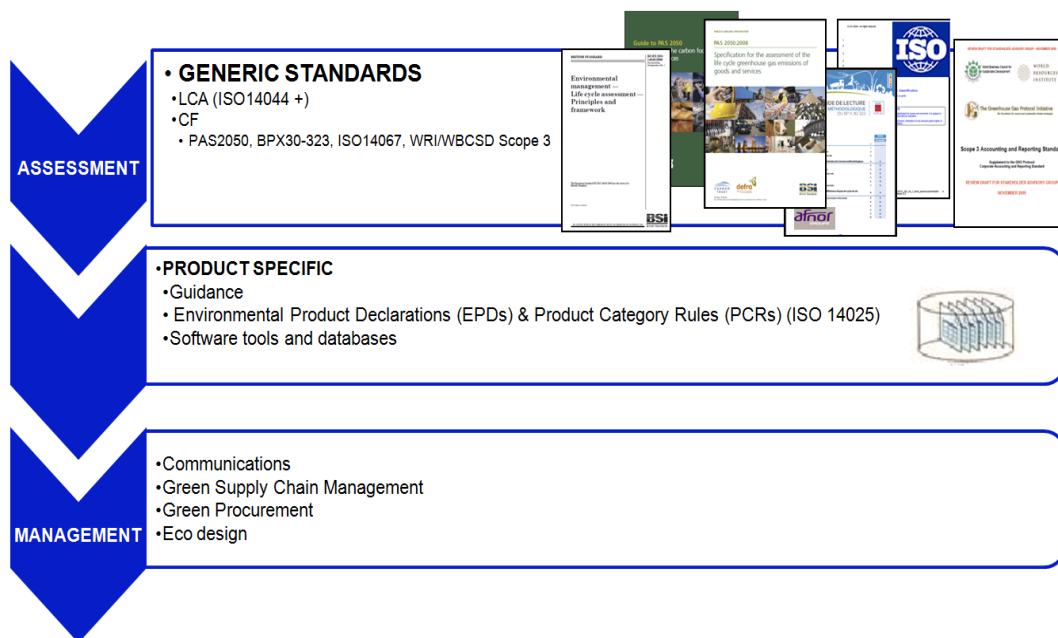
- Food – add meat, more dairy beyond milk (already covered in the Milk Roadmap) and high palm oil using foods;
- Eating Out;
- Tourism – in particular for air travel and hotels;
- Health and Personal Care products.

The focus on some product groups can be adjusted to ensure the specific environmental impacts relevant to that product (e.g. GHG emissions, water use etc) are targeted. For example, shift the current Defra SPC focus from individual building products only to the building as a whole in line with evidence showing the building envelop (sealing, insulation, roof, windows and doors) being key to maximising energy improvements, one of the most significant impacts of buildings.

2. EXISTING STATUS & OPPORTUNITIES FOR INCREASING PRODUCT ASSESSMENT AND MANAGEMENT

Figure 2 “Assessment” illustrates the generic standards for LCA (covering multiple environmental impacts) and Carbon Footprint (embedded GHG emissions). These include currently available LCA (ISO14044) and Carbon Footprint standards (e.g. UK PAS2050) with international Carbon Footprint standards e.g. ISO14067 expected to be completed by 2011.

FIGURE 2: Existing Status & Product Specific Supports



The analysis from existing activities and stakeholder views showed that greater uptake in assessment and more effective environmental improvement across product supply chains can be facilitated by the following measures:-

- Developing product group specific supports that complement these generic standards, but enable product differences to be taken into account for consistent, verifiable and simpler assessment, where these supports are not already in place.

- Harmonising behind one generic international Carbon Footprint standard when available, to simply business use across global supply chains (as already exists for LCA with ISO14044).
- Encouraging a multi impact vs. Carbon Footprint only assessment approach to ensure the relevant environmental impacts are targeted for each product group.
- Shifting the main application of assessment to reducing supply chain impacts as distinct from communication via labels which the analysis shows is the main focus on assessment activities at present. To enable this, greater awareness raising on the business case for using Business to Business (B2B) management techniques e.g. green procurement, supply chain management and ecodesign are needed and simplified product specific supports made available.

As illustrated in figure 2, examples of key product specific supports to enable assessment uptake include:-

- Industry agreed guidance to define the product specific technical “rules” and significant impacts per product group for assessment. Guidance, standards, Environmental Product Declarations (EPDs) and Product Category Rules (PCRs)¹ provide the existing norms for this and can enable a transparent, consistent approach.
- Software tools and databases for simplifying assessment and providing decision support to optimise supply chain improvements. These should be compliant with credible norms e.g. International Life Cycle Data system (ILCD)².

Additionally it is necessary to enable management uptake through the development of tools, checklists and templates to facilitate green supply chain management, procurement and ecodesign. This is in addition to the existing communication / labelling supports.

Based on the analysis of existing supports available on product assessment and management per high impact group, the current status is:-

- Advanced - Electrical & Electronic Equipment, Housing/Buildings, Timber Products and Chemical Products
- Emerging - Food & Drink, Transport and Health/Personal Care
- New - Eating Out, Tourism and Clothing/Textiles.

This provides a baseline on which further supports can be considered in conjunction with existing or planned SCP business focused initiatives. Overall, an independent platform to engage with the key influencer business organisations in high impact product groups can fast track and facilitate uptake of product assessment and management supports. Key platform activities would be to provide information, capacity building customised to existing sectoral needs and linkage to other credible initiatives (UK and international) undertaking similar parallel activities to save resource and harmonise efforts. This could be a new platform or could be incorporated into existing suitable business platforms and should build on existing UK activities. Similar platforms are moving forward in France, Japan and USA.

The platform activities should be appropriate to/aligned with the status of existing supports in these product groups on the basis of them being either at advanced, emerging or new levels. For example:-

¹ PCRs provide the set of specific rules, requirements and guidelines for developing verified Environmental Product Declarations e.g. for use in a third party verified label. These are defined in ISO 14025 “*Environmental labels and declarations -- Type III Environmental Product Declarations (EPD)* (ISO14025, 2006)

² ILCD (EU, 2010) provides a framework for credible, quality controlled data collection, management & verification.

- For product groups that are new or emerging, key activities would be information, clarity on the business case and linking UK Industry Associations and business with other synergistic initiatives (UK and international); this would avoid duplicating efforts on development of supports in particular guidance, tools and databases.
- For product groups that are advanced, the focus would be on increasing uptake or other adjustments in line with the support organisations already working with business on existing activities. These can act as “how to” case examples to fast track the new and emerging product groups.

3. ENGAGING WITH KEY INFLUENCER ORGANISATIONS

Key influencer organisations to engage with within each high impact product group are:-

- Retailers with significant purchasing power to drive improvement across the supply chain;
- Original Equipment Manufacturers (OEM) (i.e. the product brand owner with control over the product design and specification) with high UK market share;
- Industry associations/support organisations focusing on credible product sustainability improvements.

Based on a market analysis, a list of these organisations has been provided to Defra as a separate deliverable to protect confidential company market share information.