SustainAbility What's Next

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The Inescapability of Traceability: Is Big Oil Next?

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To be able to type in the code on a tin of tuna and find exactly where it was caught in a matter of seconds is probably no longer surprising. But to see this feature as the sole focus of a national brand campaign surely is. John West, the UK's largest brand of canned tuna has recently launched its 'Fish Finder' application to enable consumers to track exactly where the fish was caught and by which boat. According to managing director, Paul Reenan *"John West is dedicated to tracing the supply chain of every fish sold so we can ensure that we continue to sell fish which is not under threat and is sourced from areas of world where the quantity of fish is high."*

This is just the latest development in an irreversible trend to make supply chains more transparent and to allay consumer concerns to know that what they are buying is ethically sourced. An early signal of this trend was Nike's experience in the 1990s when the company faced a series of high-profile attacks from the media and human rights groups concerned with working conditions, wages and even allegations of child labour in their supply chain.

The Nike sweatshop allegations became a turning point for an industry. What was originally a differentiator (sweatshop-free apparel), progressively became a baseline expectation across the industry. That very expectation – knowing the provenance of materials, components and products – goes by the name of *traceability*.

From Product Safety to Ethical Concerns

Traceability began to evolve and gain status both within and beyond the manufacturing industry. Fast-moving consumer goods, food, pharmaceuticals and precious stones all came under similar pressures, and responded by developing mechanisms to assure its buyers and individual consumers that its products were sourced with social and environmental considerations in mind.

The food and pharmaceutical industries initially led the way on supply chain traceability, as the products that these industries deliver can have immediate and dramatic impacts on public health. Whilst traceability originally focused on ensuring the safety of products, it now entails tracing the derivation of products to verify the ethical treatment of the people and/or animals involved in the production processes.

Genetically Modified Organisms ('GMOs') is one such area where this revolution in traceability emerged. The European markets have demonstrated a reluctance to import food products that have been genetically modified, reflecting concerns over the potential impacts on personal health, the socio-economic effects on developing countries and, most importantly, the discomfort in tampering with natural processes. These concerns have manifested themselves in regulation, with the introduction by the EU of mandatory labelling for GM foods – products consisting of or containing GMOs are subject to a set of traceability requirements. As for individual consumers, when surveyed by the European Commission and King's College London about attitudes on GMOs, they raised ethical, environmental and health concerns and were, on the whole, less aware of the possible benefits than of the potential hazards of GMOs. The major driver of purchasing decisions, however, was found to be the decision of retailers not to make products available to consumers – an early signal of a growing trend for businesses to "edit" purchasing decisions of consumers.

A similar story is unfolding for the palm oil industry, which has been widely criticised for its role in causing severe social and ecological damage. As demand for palm oil has accelerated (WWF says it is an ingredient in at least 50% of packaged supermarket products), so has concern for its environmental impacts. The effects on Asian tropical rainforests (primarily in Indonesia, Malaysia, Borneo and Sumatra) are of particular concern: the Economist states that between 1967 and 2000 the area of cultivation in Indonesia expanded from below 2,000 square kilometres to over 30,000

square kilometres. The resulting deforestation led a report by the United Nations Environment Programme (UNEP) to conclude that most of Indonesia's forests might be destroyed as soon as 2022. In Sumatra and Borneo, known for its rich wildlife, the rapid expansion of palm oil plantations threatens elephants, tigers and orangutans.The huge amount of carbon dioxide emissions released as forests are cleared is equally troubling – deforestation makes Indonesia one of the world's most prolific carbon emitters.

Concern for these impacts led to the creation of the Roundtable on Sustainable Palm Oil (RSPO) in 2004, a membership organisation with the mission to stimulate the industry into producing palm oil in a more sustainable manner, leaving areas of high conservation value untouched. The road to 'sustainable' palm oil sourcing has not been an easy one however – the RSPO initially suffered from a weak demand for 'certified' palm oil, leading both business and environmental groups to nickname it 'Really Slow Progress Overall.' Environmental groups have often accused the organisation of allowing itself to be hijacked by business' 'greenwash' activities, and consequently membership in the RSPO was no longer seen as sufficient verification of a company's social and environmental commitments.

Despite these frustrations, the traceability agenda continued to unsettle the market: as Greenpeace began publishing a number of reports alleging irresponsible practices by certain palm oil suppliers,1 high profile corporations2 like Unilever, Procter & Gamble and Mars committed themselves to only buying palm oil that could be traced back to a certified source. This was, clearly, a result of the growing recognition of the reputational and financial risks of association with the production of 'unsustainable' palm oil.

The new standards of traceability began to force companies to look even deeper into their supply chains, with disturbing results. Alarmed by what his company had found, Gavin Neath, senior vice-president of communications and sustainability at Unilever, told the Economist in June 2010: *"We found that, in one way or another, all of our suppliers have technically infringed either RSPO standards or Indonesian law. It isn't as easy as saying just pick the best, we can't. We are not in a position to do that. The industry almost certainly has to go through fundamental change."*

And so it has. By December 2009, pressure from Greenpeace and other campaigners had convinced Unilever to remove Sinar Mas (part of the Indonesian conglomerate, SMART), from its supplier list. Nestlé, too, dropped the supplier after a widely-viewed spoof video citing the company's role in the deforestation of tropical rainforests hit the internet. The list goes on: HSBC, Kraft and Burger King rapidly followed suit in the case against Sinar Mas.

Traceability and Transparency

In April 2010 Harvard Business Review (HBR) released a piece called 'Leadership in the Age of Transparency.' The caption was telling: "Consumers know everything about your company, not just its carbon emissions"; it continued: "but its countless other 'invisible' effects on the globe. That has changed the rules of business forever." Traceability, therefore, can be considered a key ingredient of another, dimension of the sustainability agenda – transparency.

This focus on the importance of corporate transparency has been escalated by the scale and nature of the global financial crisis that broke in 2008. The new 'age of austerity', which has been characterised by severe protests across the developed world in response to dramatic government budget cuts, has made it easier to point the finger at the business world. As the authors of The *Transparent Economy* note, whilst global trust in business was up modestly when the annual

[1] How Sinar Mas Is Pulping the Planet (2010)
[2] How Unilever Palm Oil Suppliers Are Burning Up Borneo (2008), Caught Red Handed: Nestlé, Sinar Mas and palm oil (2010)

Edelman Trust Barometer was presented in Davos at the 2010 World Economic Forum, "we were warned that the overall rise is tenuous, with nearly 70 per cent (of respondents) saying that business and financial companies will revert to business as usual after the recession." The 11th annual Trust Barometer found similar results: whilst trust in business is, on a global scale, 'markedly resilient,' the survey also reflected that this resilience was brought about by the emerging markets, with key Western nations taking a big hit.[3]

Next In Line – Big Oil?

The oil and gas industry is facing a reputational crisis. From the Deepwater Horizon disaster to the Wikileaks[4] disclosures of corporate malpractice, to the controversial pursuit of unconventional oil and gas– it is clear that the industry is subject to ever increasing scrutiny, challenge and societal concern.

It is inevitable that these crises will lead to a growing demand for greater transparency from oil and gas companies, as governments and civil society become ever more concerned by the negative environmental and social impacts of the industry.

As in other sectors, traceability will be a key feature of the rising tide of transparency and accountability, as businesses, customers and consumers become more discerning in their choice of fuel. "We are approaching a tipping point," reads a Financial Times article, "beyond which everyone will want to know the provenance of their products." Why should Big Oil be the exception?

This growth of traceability within the industry will focus on so called 'unconventional' oil production which has significantly greater environmental and social impacts than conventional fossil fuels. The extraction of oil sands – colloquially known as 'tar sands' - is a prime example of unconventional forms of oil. The production of synthetic crude from bitumen has an extremely high carbon footprint: on average, the extraction and upgrading process typically emits over 2.5 times more greenhouse gas emissions per barrel than conventional crude used in European refineries5, in addition to the other high impacts to air, land and water and communities. According to Simon Dyer, The Pembina Insitute's policy director, from a 'wells-to-wheels' perspective (factoring in emissions associated with transporting oil to markets and burning it as gasoline in cars), fuel derived from oil sands still releases up to a third more GHG emissions, despite industry and government attempts to downplay the effects by stating that, once oil is combusted, it has broadly the same effect on the environment as conventional crude.

With this context, how could the rising trend of traceability play out for the oil industry?

Preferential purchasing is one channel through which businesses and consumers can disrupt markets. Already retailers such as Timberland, Walgreen's and Bed Bath & Beyond have pledged to avoid using oil derived from oil sands. Indeed, the Royal Bank of Canada, often criticised for its involvement with oil sands, has recently responded to pressure by adopting more stringent social and environmental standards on its lending policy. The mere fact that these businesses have been willing to take such public stances highlights the fact that even an indirect association with unconventional oil could have a damaging effect on corporate image.

[3] Trust in business declined in both US and the UK – the US suffered an 8 point decline, whilst the UK saw a 5 point drop. Brazil and India both witnessed increases, 19 and 3 point spikes, respectively.
[4] WikiLeaks cables: BP suffered blowout on Azerbaijan gas platform (16 December 2010)
WikiLeaks cables: Shell's grip on Nigerian state revealed (8 December 2010)
[5] See: *Upstream greenhouse gas (GHG) emissions from Canadian oil sands as a feedstock for European refineries*. Adam R. Brandt (January 2011)

History suggests this trend is irreversible. In the US, the battle over the XL pipeline – intended to provide producers with an export route from the Canadian oil sands to refineries in the US – raised public awareness globally of the environmental impact of oil sands extraction. Refiners and marketers can expect a growing number of companies to commit to eliminate oil sand derived fuel from their supply chain both in their direct fuel purchases, and via their shipping suppliers.

To date the oil industry has taken a rather predictable line of defence: crude oil is fungible and traded as a commodity, and it is not practical to trace a final product back its production source. This position has been enabled by the lack of disclosure on the part of oil and gas companies themselves regarding the derivation of their products. Enter public watchdogs.

NGO Earthworks is running the No Dirty Energy campaign, and offers a handy map of the US pipeline network emanating from the Canadian oil sands region, and a listing of refineries that receive oil sands crude. Forest Ethics helps companies to trace the fuel their shipping suppliers use back to specific refineries. Players like Greenpeace, WWF, Friends of the Earth and The Pembina Institute are highlighting the damaging environmental and social consequences of unconventional oil, and are pressuring both businesses and consumers on the oil sands issue, including their respective degrees of investment. Indeed, even newspapers like the Financial Times have reported on BP's and Shell's participation in unconventional oil production, and the resulting shareholder inquiries into these plans.6 The exposés have also emerged at a consumer level, as seen in the high street campaign by the ethical products chain Lush (see below).

In a May 2010 report, Greenpeace claimed that considerable quantities of oil sands fuel were being exported to Europe via refineries in the United States – this came as a surprise to European consumers, who generally believe that oil sands derived fuel was only consumed in North America.

[6] Shell faces Alberta oil sands dispute, Investors in BP oil sands attack

The report contained accusations against BP, stating that it has sold at least one consignment of oil sands crude to a Valero Energy refinery which regularly exports diesel to Europe. ExxonMobil was also singled out by name. In response, the company was quoted as saying:

> *The crude oils we process at our refineries come from a variety of sources around the world. However, what types of crude are processed at each refinery, how much, and when are all details that we do not discuss publicly as a matter of practice.*

This 'matter of practice' can be expected to change imminently. The industry will no longer be able to dismiss concerns about the source of its products under the shield of commercial confidentiality.

In parallel with NGO and media activity, developments in science and technology are bridging this disclosure gap. It is possible to trace crude arriving at a refinery back to its origin based on the product's very specific chemical composition; whether a fuel contains unconventionally derived oil can now be scientifically determined. Indeed, the science has been proven elsewhere: via the chemical 'fingerprinting' of oil in the Gulf of Mexico following Deepwater Horizon, for instance, forensic investigators were able to determine whether it emanated from the Macondo well.

Regulatory action is another potential challenge for the sector. Governments and international regulatory bodies could impose rules on oil companies that oblige them to trace and identify the origins of their products, as witnessed in other industries – such as occurred with the EU and its laws on Genetically Modified products.

Low-carbon fuel standards are also emerging in markets around the world. Currently, the oil and gas industry faces regulatory initiatives that seek to determine the GHG intensity of oil-based fuel products. This has the potential to close markets to unconventional oil. Ultimately, this could leave oil companies heavily invested in reserves which they are unable to extract and monetize – so called 'stranded' assets. Pressure is building in the USA, with low-carbon fuel standards enacted in California in 2007. The United Kingdom is implementing its Renewable Transport Fuel Obligation Program, which also applies low-carbon fuel standards. The EU has adopted a similar approach to California through its own Fuel Quality Directive (FQD). Article 7(a) of the Directive includes a target to reduce lifecycle GHG emissions in the transport sector by 10% by 2020. In their quest to assess how it will achieve its energy efficiency targets, the EU sent a delegation to Alberta to evaluate the oil sands process, signifying the intensifying regulatory and market threats. Any legislation or tariffs adopted by the EU could spread and set a global precedent – which seems likely as the consequences of unconventional oil emerge on the EU's radar.

The overriding risk for oil companies is that, as traceability develops through market or regulatory action, they will be caught on the back-foot, defensively attempting to minimise the reputational and financial loss that can come from investment in unconventional oil. Moreover, they face the increasing risk of holding stranded assets on their balance sheets that they are unable to efficiently utilise, as traceability introduces new market dynamics and disruptions.

The key message to oil sands producers is this: jump before you are pushed. Recall Unilever's Gavin Neath's statement on the effects of traceability: "The industry almost certainly has to go through fundamental change." This message is an advance warning. There is huge financial, regulatory and reputational risk potential for oil companies that do not recognise this trend. In the worst case, 'unconventional' assets will be downgraded by investors or even entirely 'stranded' if markets discriminate against them. On the other hand, however, a market opportunity is likely to emerge for 'tar sands-free' fuels with appropriate branding and verified sourcing. Either way, oil companies – and indeed all sectors - would do well to explore the issue of traceability before it emerges as a major force in customer and consumer choice.