

What Do We Mean by 'Green'? Consumers, Agriculture and the Food Industry

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Introduction

'Greening'¹ is a term used to describe the process of change in the ideologies and practices of (largely) western social systems as they move toward the incorporation of environmental concerns. The proliferation of green terms, as part of this process, not only provides evidence of the significance of green discourse in contemporary society but also indicates the confusion and disagreement about the actual processes of change which are occurring. In this paper, an attempt is made to examine a number of prominent green terms, and of adjudging their utility in explaining the trajectory of particular social phenomena. Our purpose is to seek some conceptual clarity in the application of green terminology, and to undertake an initial and provisional analysis of the significance of the greening of institutions and institutional practices. In other words, we are seeking, first, to clarify what we mean when we use terms like corporate greening, green consumption and greenwash; and, second, to establish a framework which will enable us to evaluate what, if any, particular social actions can be accurately defined by the use of such terms. For example, when and under what circumstances are the actions of a company that undertakes to minimise the environmental effects of its production practices to be seen as genuine (corporate greening), and when is such action merely window-dressing (a greenwash)? We try to achieve these twin aims by considering the various ways 'green' terms are being employed in agri-food discourse, and by providing some examples from the organic farming industries in Australia and New Zealand, and the operations of a supermarket chain in the UK.

Green 'Labels'/Green Tendencies

Throughout the last few decades we have witnessed the emergence of an array of terms which attempt to conceptualise the evolution of a green perspective and processes of greening. In particular, we have identified a number of major applications of the terms green and greening used in association with other terms, in order to convey a positive engagement between elements of a production system and the environment. These terms are a) green production; b) green consumerism; c) corporate greening; and d) green protectionism. We have also identified two other terms which represent opposition to, or a critique of, the positive meaning ascribed to these terms. These are e) greenwashing and f) green marketing. Each of these will be considered in turn.

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a) *Green production*. For the agri-food sector, the use of the phrase 'clean and green' refers to production systems which inhabit non-polluting spaces and/or which use reduced or nil chemical inputs. The concept of 'clean and green production' is at the core of any discussion of terminology, and all the other uses of the terms green and greening are predicated on basic assumptions about the scope and possibility of what is termed green production. For example, green production encompasses more than corporate greening; the latter term largely refers to the actions of private companies whereas green production encompasses a wider frame of reference which includes the activities of governments, non-governmental agencies, alternative lifestyle communities, advocacy groups, architects, engineers and designers, and so on.

¹ While it might be conventional to place terms such as 'green', 'greening', and so on in inverted commas - as evidence that they are somewhat problematical - this practice has not been followed here.

In the post Second World War period, the origins of the idea of green production lay not so much with a concern with environmental pollution by industry, but with the wasteful use of resources in a production system that relied upon continuing high levels of personal consumption to maintain output and employment. For example, Vance Packard, in his iconoclastic *The Waste Makers* (1961), criticised the notion of planned obsolescence and the production of goods designed to have a limited life, which forced consumers into buying an endless stream of products - something which, in turn, maintained the productive base of the capitalist system.

A growing trend towards the apparent rejection of material and consumerist values resulted in attempts to develop alternative lifestyles and communities, which were often based on the reduced consumption of material goods and the use of simpler production techniques which were accessible, less energy intensive, less polluting and less wasteful of raw materials (see, for example, Boyle and Harper 1976). At the same time though, there occurred a shift of emphasis towards a concern with wider issues of sustainability. More recently, industrial designers and engineers have started to work on the principles of 'ecodesign' which seek to ensure that products are manufactured in accordance with ecological principles and notions of sustainability (Papanek, 1991). In this context, the concept of life-cycle analysis (or 'whole-of-life' or 'cradle-to-grave' analysis), which seeks to evaluate the total environmental effects of a product or process throughout the course of its 'life', is of particular importance. This approach breaks down the product life cycle into a series of stages - the extraction and processing of raw material inputs, raw materials transformation and transportation, product fabrication, marketing and distribution, product useage over the life of the commodity, and final disposal. The environmental impacts of a wide variety of products and processes can be evaluated in this way, and the total impact of the current means by which material wants are satisfied can be assessed and compared (Cattanach *et.al*, 1995).

b) Green consumerism. In a marketplace in which the purchase of products has been transformed from a concern with social reproduction into 'an act of creative expression' (Sachs et al, 1998: 119), consumers are demanding products which improve individual and family health, and which are produced in ways which do not harm the environment. Four principles appear to underlie this new form of demand: environmental thrift ('using' nature sparingly); regionality (buying locally, reducing personal travel and the extent to which foods and other products must travel, thus saving on fossil fuels); joint utilisation (finding ways by which products are not simply used individually, but have a social feature - using public transport instead of one's own car, for example); and durability (seeking to purchase products which last a long time and do not have 'in-built obsolescence'). Green consumers purchase products which, literally, do not cost the earth. The aims of the green consumer are therefore, to seek improvement to personal, family, community and environmental health via the strategic choice of products which are more 'natural', are biodegradable, can be re-cycled, are simply packaged, and are drawn from less polluting and less energy-intensive production systems.

c) Corporate Greening. This term embraces the adoption by firms of production methods, advertising and marketing strategies, and other procedures and practices by which they, and their affiliates measurably reduce the level of pollution and/or environmental impacts and damage associated with the production and/or sale of their products. Planning involves addressing the causes of the ecological problems associated with the product - something which, in turn, tends to result in the re-shaping of the firm. This can impact upon the variety and types of products, management regimes, and the methods of production and of distribution (Sachs et al., 1998: 110). The term is used to capture the genuine attempts made by firms to improve their environmental credentials as a basis for continued support from increasingly environmentally-conscious (green) consumers.

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d) *Green Protectionism*. This involves the imposition of new and increasingly strict, environmentally-related, safety requirements on the importation of foods, which sometimes serves as a form of non-tariff trade barrier but which also derives from the standards laid down by purchasing agencies in the importing country, e.g. supermarkets which import organic or chemical-free commodities from overseas. Among other things, it has been associated with heightened sanitary and phytosanitary standards for importation of products containing pesticides, and the more stringent control of pesticide residues (Campbell and Coombes, 1999). Green protectionism is seen to be driving change in exporting nations such as New Zealand, where corporations are learning the new 'rules' for export, and are seeking to impose new strategies of (greener) production on contract farmers (see Campbell, 1996a).

The use of green or greening in the preceding four cases reflects a positive perception of what the terms mean and what outcomes can be expected from the social action associated with such concepts. However, the term green has also been used in the expression of opposition to the positive connotations associated with the above terms, reflecting a contrasting and alternative interpretation of the action associated with green discourse. In this context, two of the most important terms are greenwashing and green marketing (Beder, 1997; Greer and Bruno, 1996).

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e) *Greenwashing*. The concept of greenwashing refers to the shaping of public perceptions that firms have an environmental consciousness and are actively engaged in activities that improve the environment when, in reality, their income-generating activities remain largely unaltered (and environmentally suspect). The 'environmental PR' firms which are at the core of greenwashing seek to penetrate the media, educational organisations, conferences and other fora, with the aim of 'talking up' a company's products by emphasising their positive value and/or attempting to keep public concern about a company's activities to a minimum.

f) *Green Marketing*. This is seen as being synonymous with 'green advertising'. It is advertising which aims to convince consumers that they should purchase a particular product because it is good for the environment. By marketing a product that is construed as either being less harmful to, or positively beneficial to, the environment, firms seek to expand sales. It is often based on the (false) premise that environmental problems can be overcome within the framework of current consumerism, simply through the purchase of more environmentally-friendly products. Green marketing can be viewed as a component of greenwashing when it is based upon false claims about a product's environmental credentials.

We now turn to our case studies, in order to evaluate environmentally-focused activities in the agri-food sector. These case studies focus on two elements in the chain of production and distribution in which green discourse has recently become apparent. The first relates to organic food production in Australia and New Zealand, and the recent innovations by a number of large corporations engaged in the production and marketing a range of organic products. The second focuses on the activities of Sainsbury supermarkets in the United Kingdom which, since 1991, has not only been selling organic produce but has also introduced into its routine operations a wide range of activities and processes which it claims are consistent with the principles of sustainable development.

Greening and Agri-food Production

In Australia and New Zealand in recent years, there have been a number of instances of corporate involvement in the organic food industry. These have usually involved large-scale food processors who have attempted to integrate their own production systems with forms of agriculture which avoid the use of synthetic fertilisers and pesticides, and which rely on ecologically sound farming techniques (Guthman 1998). The shift towards the sourcing of organic inputs by such companies can be seen as offering support for forms of agriculture

which reduce the environmental damage associated with the conventional production of raw material inputs for their product lines, and is characteristic of so-called corporate greening (Sachs et al., 1998). For food processors, the production of organic food lines presents an opportunity for companies to present a green product, which may in turn be utilised to promote a more general corporate commitment to the environment.

Uncle Tobys Organic Vitabrits

The strategy of presenting an environmentally-friendly face which is characteristic of corporate greening, is evidenced by Uncle Tobys, a company which, between 1990 and 1997, retailed the breakfast cereal 'Organic Vita Brits' throughout Australia. Over this period, Uncle Tobys presented their organic product line as 'Healthy for You, Healthy for the Environment', thus promoting both the personal health and wider environmental benefits of consuming this product. Significantly, Uncle Tobys also utilised the sourcing of the organic wheat used in this product as an opportunity to present a corporate image of environmental responsibility (see Lyons 1999). Thus, throughout the period Uncle Tobys sourced organic wheat, they used 'organic' as a signifier of corporate environmental commitment and thus as a strategy to green their corporate image. In short, the manufacture of this and other organic product lines by food companies, can be expected to appeal to the growing band of green consumers who express concerns about the environmental and health implications of contemporary systems of food production, distribution and consumption (Clunies-Ross 1990; Arce and Marsden 1993).

Grow Organics with Watties

Another example is provided by the New Zealand processing company, Watties Frozen Foods (WFF). WFF is part of Watties Ltd, an agri-food processing company which is wholly-owned by H.J.Heinz and Co, one of the largest food companies in the world. In October 1993, WFF introduced its 'Grow Organics with Watties' program, which is designed to produce a range of frozen vegetables - peas, beans, carrots, sweetcorn and potatoes - grown under conditions which certify the product as organic (Campbell 1996a; Campbell 1996b). The program has mainly utilised conventional farmers who have been willing to convert to organic production and to enter into contract farming arrangements with WFF. To qualify as producers of organically-certified produce, farmers are required to meet the standards and guidelines laid down by Bio-Gro NZ, the certifying body for New Zealand organics. As part of the certification process, Bio-Gro NZ provides specifications to organic growers on the production, processing, labelling and marketing of their produce, and monitors performance through an inspection system. Before full certification is granted, growers must undergo a period of transition, during which time no prohibited substances, such as soluble fertilisers and synthetic agri-chemicals, can be used. Importantly, certification licences are not just issued to organic products, but also to the property and to the manager, and if these change, growers must apply for re-certification. In addition to meeting the requirements of Bio-Gro NZ, growers supplying organic produce to WFF must also satisfy the company's quality control measures, as outlined in grower contracts. In order to ensure its requirements for crop production are met, Watties provides information and support to farmers through field days and extension activities by company agronomists and advisors.

By 1995-96 there were 50 participating farmers growing organic produce over some 700 hectares. The output from the program accounted for about 3 percent of Watties' exports by volume and about 7 percent of total WFF production. The main market for the outputs of the program is Japan, but these products have been sold elsewhere, including Australia (Campbell 1996b). Growers associated with the program receive a substantial premium on the price paid for the conventional product. This reflects both the higher price which organic products can command in the market, and the reduction in yield which growers experience with most crops grown under certified conditions.

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The Kiwigreen Program

The kiwifruit industry in New Zealand has experienced major changes in recent years as a result of increased competition in world markets. One major response to such competition was the introduction of a program of integrated pest management (IPM), designed to produce kiwifruit that was guaranteed to be free of pesticide residues. This program, known as 'Kiwigreen', was devised and managed by Zespri International, the export marketing arm of the New Zealand kiwifruit industry, and it had its origins in a dispute over access to the Italian market, where local officials expressed concern about chemical residues. While it is clear that the Italian authorities were introducing a form of green protectionism, nevertheless the rate of pesticide spraying of kiwifruit in New Zealand compared unfavourably with that in Chile and California (Campbell, *et al* 1997: 3). At the same time, the New Zealand industry was receiving signals that there was a large and growing market for a 'clean and green' product. Major buyers such as the leading UK supermarket chains Sainsbury and Tesco, sent representatives to New Zealand to examine food safety issues surrounding the kiwifruit industry, and inquiries were also received from supermarket chains in Switzerland, the Netherlands and Japan (Campbell *et al* 1997: 14)

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This combination of factors was to lead to the industry-wide application of the strategy of IPM which was at the heart of the 'Kiwigreen' program. However, the program was also important insofar as it encouraged a significant number of growers to shift to full organic production, using the Kiwigreen as a stepping stone to this end. Although the organic sector is still small and accounted for only 1.19 percent of total kiwifruit production in 1996, this is an improvement on the 1991 figures and is indicative of a growing trend (Campbell *et al* 1997: 22).

The three case studies discussed above have much in common, but the most important for the purposes of this discussion is the fact that each is driven by the concerns of the corporation, and a particular interest in the presentation of the company's products as environmentally-friendly. This draws attention to the marketing function, which is clearly of critical importance in the success of a company and its products. What, then, is the role of the major marketing outlets in corporate greening? Do the supermarket chains, for example, support the activities of agri-food companies as they seek to produce and market 'clean and green' foods, or do they have their own agenda which establishes a different set of priorities? In order to discuss these issues, we turn our attention to the activities of the Sainsbury supermarket group.

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Greening and the Marketing of Foods

The two leading supermarket chains in the UK - Tesco and Sainsbury - have in recent years demonstrated an apparent commitment to corporate greening, in particular through the marketing of a wide range of organically-produced fruit and vegetables, as well as other products such as milk, yoghurt, eggs, tea, coffee, babyfoods, flour, bread, biscuits and other bakery products, cider, wine, chocolate and some meats (Sainsbury 1996: 26; Duxbury 1998). In this section, attention is focussed on the Sainsbury chain, because they are not only the most important retail outlet in terms of the volume of organically-certified agri-food produce sold, but also because of their explicit and very public commitment to environmental management throughout all the group's activities (i.e. in non-food as well as food products).

Sainsbury is currently the second largest supermarket chain in the UK, having relinquished its number one spot to Tesco in the mid-1990s. Sainsbury has for many years presented itself as a socially responsible company, and among the visible manifestations of this concern is the company's policy on environmental issues. Since 1991, Sainsbury has undertaken a series of measures which have been designed to reduce waste, conserve resources, minimise energy use, reduce transport usage, develop contingency plans in order to minimise the environmental

impacts of major incidents, encourage suppliers of services and own brand goods to reduce their environmental impacts, and monitor and publish information on the environmental performance of the company (Sainsbury 1996; full details of the company's operations are available at its web-site; see Sainsbury 1998). Such policies cover all of the group's affiliated companies and are applied to all operations: management, planning and store development, store design and operation, waste management and transport. The company produces an annual Environmental Report which documents what has been achieved in the preceding period and what targets have been set for the future (Sainsbury 1996; 1997b).

Of particular importance is the extent to which the company has directly impacted on the agri-food production process as a result of its procurement policies and its setting of specifications and standards in the supply of the produce it markets. Sainsbury has had a major impact on on-farm operations through a number of recent initiatives, the most important of which is 'Partnership in Produce'. Under this program, farmers who supply produce to Sainsbury work to mutually-agreed crop protocols, which state best practice for crop production and which recommend the reduction of agri-chemical inputs through the adoption of the integrated crop management system (ICMS). According to the company literature, the ICMS is a long-term strategy covering all crops grown in the UK and abroad. For UK crops, Sainsbury is also working with the National Farmers' Union and a partnership of other large retailers to ensure the conformity of industry-wide codes of practice. The program has had a considerable impact since its inception in 1991; by 1996-97, 88 percent of produce sourced from the UK and 34 percent of overseas produce (representing 61 percent of all produce sold) was grown to ICMS protocols. The targets for 1997-98 are 95 percent, 50 percent and 72 percent respectively (Sainsbury 1996; 1997b). In recent years, Sainsbury has extended the application of its ICMS policy to include produce used in frozen and baby foods.

It is important to note that Sainsbury's program of integrated crop management is distinct from its policy of marketing fully-certified organic produce. Sainsbury first started to market organic products in 1986. Currently, annual sales of organically grown produce represent 25 percent of all such produce sold through supermarkets, a figure which makes the company the market leader. A wide range of seasonal fruits and vegetables (some 24 product lines in all) are available from most of the 270 or more Sainsbury supermarkets, while another 20 or so lines (such as beef, dairy products, wines, tea and coffee) are available on a year-round basis. The prices of organic products tend to be somewhat higher than the conventional product, but this reflects the 15-25 percent price premium that the company pays to growers rather than the imposition of a larger profit margin (Duxbury 1998; Sainsbury, 1996).

Discussion: Green Concepts in Agri-food Discourse

Clearly, from the above examples, there is *something new and of importance* occurring in the agri-food sector. Yet, the use of the term 'green' in contrasting and conflicting contexts raises a number of important issues. For some authors there is no doubt that the examples discussed above indicate that greening is something 'real' and has begun to occur in western nations. By way of contrast, cynics might ask whether it is possible for the corporate sector to act in ways which genuinely facilitate the sustainable use of the Earth's resources? Many would view corporate greening as little more than a confidence trick - one readily covered up by a greenwash.

The examples of Uncle Tobys, Watties and the 'Kiwigreen' program *appear* to suggest that the sourcing of organic inputs by food companies represents a legitimate strategy of corporate greening - one based largely on the demands and expectations of increasingly aware consumers. However, there is a range of negative externalities that accrue from such activities. For example, the demand for uniform and standardised organic inputs by such food companies may also result in the waste of much production that does not meet a company's stipulated

requirements, and may well encourage large scale monoculture production, as is evidenced in the case of Heinz Wattie (Lawrence *et. al.* 1998). In addition, the recent industrialisation of organic agriculture appears to have shifted the organic food movement away from its historical roots, which were embedded in an opposition to industrial agriculture (Belasco 1989). Clunies-Ross and Hildyard (1992) in particular, argue that the integration of organic agriculture within capitalist food production relations has eroded the connection between producers and consumers, as organic food is increasingly processed and transported long distances from sites of production. Corporate involvement in organics leads to many of the problems faced by those involved in conventional industrial forms of agriculture.

Campbell and Coombes (1999) also argue that the recent appropriation of organics by agri-food capital reflects the implementation of green protectionist trade barriers, forcing many food companies reliant upon export markets to meet more stringent environmental standards. This appears to be the case for Zespri International which has shifted kiwifruit production towards organic and IPM systems in order to retain access to export markets (see Campbell *et. al.* 1997). Rather than indicating any interest in organic agriculture, however, responses to green protectionist trade barriers reflect a desire to maintain market access. In this way then, the shift to organics, representing a strategy for corporate greening, may also be closely related to the implementation of regulatory arrangements, rather than reflecting a company's genuine interest in green issues.

But most importantly, the examples of Uncle Tobys, Heinz Wattie and the Kiwigreen program all suggest it is only the *sourcing* of inputs that differentiates organic forms of production from conventional agriculture, and that the rest of the supply chain - from the sourcing of inputs to the distribution and marketing of corporate organics - may be far from green. In other words, although the corporate sector may be stimulating the production of organic food lines, such products are still usually energy intensive, highly processed and packaged, and increasingly distributed on a global scale to consumers many thousands of kilometres away. So, while the corporations' organically-sourced foods may be presented as green, a full life-cycle analysis would, in all likelihood, reveal that this was only true of the actual on-farm production phase, and that all other stages could not be perceived in this way.

If this is the case, it is possible to argue that we have what we might term *first phase - or 'partial' - greening*. That is, something of importance has occurred, but it has not led to the modification of - or any indeed any challenge to - the modes of delivery of products. The question then is - is this *first-phase 'partial' greening* a greenwash? We would argue that it is *not* at the level of the farm, but *can be, and probably is*, if all elements of the off-farm distribution chain and at the point of product sale are the same as for conventional agri-food products.

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On the other hand, it is reasonable to point out that, increasingly, those engaged in on-farm production do not have full control over the distribution system and are not able to make decisions beyond the farm-gate. 'First-phase' greening then, may be as far as their influence is able to stretch. However, supermarkets and other retail outlets such as fast-food restaurants, *are* coming to exert increasing control over the whole of the supply chain, especially in terms of direct sourcing of product lines and the establishment of product standards and specifications (Hughes, 1996; Burch and Goss, 1999). If this is the case, is what is happening with Sainsbury a case of corporate greening, driven not by those located at the sites of production (i.e. agri-food processing companies and farmers), but by those in control of the sites of distribution? Is the Sainsbury group, through a commitment to green marketing which derives from their closeness to the consumer, able to influence the production system and to make it genuinely green?

Let us look again at what is occurring in the case of Sainsbury. In this instance, there does seem to be a greater commitment on the part of the company to try and ensure that the greening process goes beyond the supermarket doors, and that the environmental effects of products and processes over their entire life cycle are included in the company's environmental assessments. Of course, there is an element of green marketing in Sainsbury's actions, which appears to be associated with its loss of market leadership to Tesco in 1996. One response to this loss has been an attempt to differentiate itself in the market by re-establishing the company as an up-market retailer supplying a more discerning and affluent consumer (*The Times*, 30 October 1997). The projection of the company as environmentally responsible and sensitive, and as a supplier of high quality organic produce, can be seen as an important element in such a strategy.

However, it can be argued that whatever Sainsbury's motives, the company is making a significant contribution to a greener production system. In terms of agri-food products, for example, Sainsbury has effectively moved back into the chain of production and distribution in order to ensure that the fruit and vegetable products it purchases are grown in ways that minimise soil loss, that reduce chemical use, and are transported in ways which avoid an over-dependence on road vehicles. In addition, energy-saving technologies are utilised in warehouses and supermarkets, and where possible, many products are made from renewable resources.

We might term this *second phase greening* - where more environmentally-friendly distribution methods form part of an integrated, holistic, approach to the production and delivery of foods to consumers, and which involves whole-of-life cycle concern for the environmental impacts of production systems. In our view, this second phase most closely resembles what Johnson (1998: 264) has referred to as the embracing, by firms, of a 'new ecological paradigm' - something which currently is only to be found in northern Europe, and which is induced not by a changing philosophical orientation but by a strong, green, public policy and regulatory climate.

However, in the absence of a strong regulatory framework, it is important to try to understand where the impetus for this second phase comes from. Is it a genuine commitment on the part of corporations to the idea of greening, or is it more of a public relations exercise (i.e. a greenwash)? For the immediate future, final judgements on this issue will probably need to be made on a case-by-case basis, and it may take some time before a clear decision can be made. In our view, in the case of Sainsbury's supermarkets, the jury is still out. It is not clear, for example, that all of Sainsbury's suppliers are entirely satisfied with the terms and conditions under which they deliver their produce to the company, and there appears to be a strong element of green marketing in the company's environmental activities. At the same time though, there is no compulsion on Sainsbury's to adopt the policies it has, and its broad commitment to environmental management appears to go well beyond consumer concerns about the safety of the foods that they are eating.

Conclusion

It is clear from the foregoing analysis that a 'greening' discourse is now very much a part of the way both analysts of agri-food production systems, as well as producers and consumers of foods, are seeking to capture the processes of change within the industry. 'Green production' would have little meaning if it was only about halting the 'wasteful' use of resources, or if it were considered in isolation from the other stages - on the input and output sides - on which it depends. If this were the case, it could be concluded that capitalism is heading - albeit slowly - down a 'green' path. However, as we understand the issue, the effective use of resources is only part of a green equation. We need to consider the extent of pollution from the system, the unnecessary steps taken in production and distribution (particularly as this relates to energy

use) and the extent to which resulting systems are sustainable. The use of the concept of life cycle analysis allows us to evaluate the environmental impacts of a product or process over the whole of its life, from the extraction of the raw materials that go into its manufacture, to its ultimate disposal.

In considering concepts such as 'corporate greening' we have been struck by the extent to which firms in the agri-food production and distribution sector have sought to achieve 'real world' outcomes. It is here that we have found it useful to distinguish between the terms first phase, and second phase, greening. Thus, if we were to undertake a full life-cycle analysis of 'organic' fruit and vegetable production organised by the large agri-food companies, we might find that so-called 'organic' products could be almost as polluting and as wasteful as conventional products. They would be processed in energy-intensive factories (which frequently produce large volumes of waste products), packaged in non-renewable and non-recyclable plastic wrapping, transported in vehicles which produce noxious fumes and greenhouse gases, stored in efficient freezers systems which utilise ozone-destroying chlorofluorocarbons, and so on. To this extent, it is difficult to conclude that these attempts at 'corporate greening' represent a genuine or significant move towards sustainability in the agri-food industries. 'Corporate organics' touch on only one small part of the total problem, although in the process there may be conveyed an impression of corporate responsibility which suggests that problems are actually being resolved, when in fact they are intensifying.

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If, as suggested above, we have a partial corporate greening, we need to understand whether or not this is leading to more sustainable outcomes at the level of the farm, and whether or not changes are being made along the production chain to configure the more environmentally-friendly foods into an altered packaging, distribution and sales network. The latter might be termed *second phase* greening. It is *second phase* greening which conforms represents an holistic approach to food production and delivery, with its promise of an environmentally-responsible food system. The Sainsbury example gives hope that a genuine, integrated, multi-phase approach to agri-food production and distribution may eventually emerge - as unambiguous evidence of corporate greening.

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