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Citation: Barling, D., Lang, T. & Caraher, M. (2002). Joined-up food policy? The trials of governance, public policy and the food system. *Social Policy & Administration*, 36(6), pp. 556-574. doi: 10.1111/1467-9515.t01-1-00304

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Permanent repository link: <https://city-ref-test.eprints-hosting.org/id/eprint/479/>

Link to published version: <https://doi.org/10.1111/1467-9515.t01-1-00304>

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Joined-up food policy? The trials of governance, public policy and the food system

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For Social Policy & Administration special issue: Food and Social Policy

Abstract

To address the policy malfunctions of the recent past and present, UK food policy needs to link policy areas that in the past have been dealt with in a disparate manner, and to draw on a new ecological public health approach. This will need a shift within the dominant trade liberalisation-national economic competitiveness paradigm that currently informs UK food policy, and the international levels of the EU and the WTO trade rules, and grants the large corporate players in the food system a favoured place at the policy-making tables. The contradictions of the food system have wrought crises that have engendered widespread institutional change at all levels of governance. Recent institutional reforms to UK food policy, such as the FSA and DEFRA, reflect a bounded approach to policy integration. Initiatives seeking a more integrated approach to food policy problems, such as the Social Exclusion Unit's access to shops report, and the Policy Commission on the Future of Food and Farming, can end up confined to a particular policy sector framed by particular interests – a process of “policy confinement”. However, the UK can learn from the experience of Norway and Finland who have found their own routes to a more joined-up approach to public health and a sustainable food supply by, for example, introducing a national food policy council to provide integrated policy advice. Also, at the local and community levels in the UK policy alternatives are being advanced in an ad hoc fashion by local food initiatives. More structural level interventions at the regional and local governance levels are also needed to address the social dimensions of a sustainable food supply.

Keywords

Food policy; public health; policy integration; policy confinement; sustainable food supply; multi-level governance.

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Introduction: The challenge of an integrated food policy

Food policy offers a substantial challenge to governments as it reaches across a number of policy areas, demanding responses across these different policy sectors. In recent decades food policy in the United Kingdom (UK) has been malfunctioning within a number of these policy sectors including agriculture, health, environment, social and competition policy (Lang et al 2001). In an era of multi-level governance such policy integration is not only required horizontally across policy sectors, but also vertically through different levels of governance. The UK is not alone in this policy challenge. There have been major debates about policy failure in other developed European countries too such as France, Belgium, Ireland, Spain and Germany, often following public outcry about perceived failings of food quality or health control. But the UK does, as ever, make an interesting case study, partly because it was the first industrial nation and thus the first to sever the links between the urban majority and the land and partly because of its peculiarities of imperial and national history, today struggling to meld with regional and global integration on if not a more equal certainly a less colonial footing.

Food policy in the UK is shaped by European Union (EU) policy, not just the Common Agricultural Policy (CAP), but also by the regulatory legislation that has buttressed the drive to the single market. This legislation has encompassed EU wide environmental and social legislation and a move to a public health strategy. The promotion of international trade liberalisation and the extension of a rule based trading system to include agriculture and food have extended regulatory governance to the World Trade Organisation (WTO) and the global level. The reform of sub national governance in the UK provides a further evolution in the extension of multi-level governance to the regional, local and community levels. Within the UK, the structure of sub-national governance and the allocation of policy responsibilities continue to evolve through an on-going process of reform, providing a variable geometry for governance.

Governance of food stretches beyond the formal governmental sectors, however, and embraces the private governance of food notably through the

introduction of systems of standards and grading of food products (Marsden et al. 2000; Busch et al 2000). Within the food system as a whole change such as corporate concentration continues to take place, causing shifts in resource dependencies and power along the food chain (Lang et al 2001). Key corporate players in the food chain have become important in the governance of food in the market economy, leading to the incorporation of these private interests into public systems of regulation (Flynn et al 2000). This mix of public and private governance adds further to the complexity that marks the shift to multi-level governance and a multi-level polity (Gamble 2002).

To address the policy malfunctions of the recent past and present, food policy needs to link policy areas that in the past have been dealt with in a disparate manner. There are models being advanced that offer an evidence-based approach to providing both an integrated and sustainable food policies. For example, the 51 nation state members of the World Health Organisation Europe (WHO-E) regional committee agreed a more integrated approach to food policy in September 2000. A three-year process of consultation and debate preceded this landmark resolution. And a five-year process was proposed to upgrade food policies to give equal weight to nutrition, food safety and sustainable food supply (WHO 2000). These three policy priorities were configured as the three pillars holding up the roof of health for all. The sustainable food supply approach recognises the need to include social policy objectives such as reducing health inequalities. A refined version of this approach has been conceptualised as an ecological public health model adding a fourth pillar that addresses food consumption and cultural dimensions (Lang et al. 2001), drawing upon a more complex multi-pillared approach to food and health (Waltner-Toews and Lang 2000).

Integrating food policy in the UK: institutional and policy initiatives and policy paradigms

A coherent and sustainable food policy demands policy integration across discrete sectors. But, to what extent is there a joined-up food policy emerging in the UK? To what extent are institutional reforms and new policy initiatives in food policy, of which there have been several in recent years, signalling joined up thinking? How far does this joined-up thinking go? Within which policy frames and by which interests

are these recent initiatives being shaped and delivered? Also, in what ways is UK food policy recognising and adjusting to complexities of multi-level governance? Are national reforms such as the establishment of a Food Standards (FSA) occurring at an historical juncture when such governance responsibilities are being moved more to intergovernmental levels such as the new European Food Safety Authority (EFSA) and the joint FAO/WHO Codex Alimentarius Commission (Codex)? Some much needed rethinking may be slowly emerging from policy makers at all levels, but is it sufficient? To what extent does the emergent food policy suggest a joining up of nutrition, food safety, sustainable food supply and consumption? To what extent do the reforms focus on the social policy dimensions of food?

Achieving policy integration across policy sectors and departmental boundaries has proven a problem for governments. Departmentalism is entrenched in government, leading to turf mentalities and sustaining policy communities with client interest groups that can insulate officials from outside thinking on policy priorities. An awareness of these kinds of problems led the incoming Labour government in 1997 to promise “joined up solutions for joined up problems”. Within the core Executive of UK government, the main mechanisms for policy co-ordination have become the Prime Minister’s own Office and the Cabinet Office, as opposed to the full Cabinet, as well as the more traditional institution of the Treasury (Holliday 2002, Richards and Smith 2001). Under the Blair-Brown axis the Treasury’s Comprehensive Spending Review, with its three-year horizon, has become a centralised auditing of departmental policy performance and promise. The extent to which such centralisation can also offer a basis for policy integration across different policy sectors remains uncertain, however. Consequently, other processes have been instituted to try to bridge departmental divides and produce policy innovation. The most favoured under Blair has been the “task force” approach, setting up *ad hoc* committees (which run into their hundreds) involving both public and private sector people to address specific problems (Richards and Smith 2001). A feature of these task forces has been the involvement of leading corporate executives, including from 28 of the leading FTSE-100 companies (Holliday 2002: 103). The more important of the task forces have been designated Units and located within the Cabinet Office, an example of which, the Social Exclusion Unit (SEU), is discussed more fully in the next section.

An instructive example of the difficulties of achieving effective policy integration, at least to date, has been the so-called “greening of government initiative” under Labour. The Labour Government inherited a range of institutional devices and forums from the previous Conservative Government including a cabinet committee on the Environment, a Committee of Green Ministers and a cross departmental Sustainable Development Unit. Labour updated the remit of the latter, and added other institutional reforms including toughening the remit of the House of Commons’ select committees. Yet, the ability of these processes to alter other departments’ policy making approaches and thinking to prioritise environmental issues remains unfulfilled (Jordan 2002). Sustainable development was in turn hived-off into the new DEFRA in June 2001. Similarly, the integration of environmental policy priorities across and into other policy sectors had proven a difficult task at the EU level, bringing with it the conundrum of operationalising policy along both horizontal and vertical policy dimensions in a multi-level polity. The EU’s Fifth Environmental Action Programme “Towards Sustainability” prioritised such integration across five policy sectors. A review of the programme concluded that: “the commitment by other sectors and by Member States to the Programme is partial...” (CEC 1999: 3).

The ecological public health model suggests the need for a significant shift in thinking about food policy, arguably a paradigm shift (McMichael 2001). Current UK agricultural policy can be characterised as struggling within an industrialised “productionist” model that emerged after the Second World War. The aim of post war agricultural policy was to achieve greater self-sufficiency of food production (partly for balance of trade reasons) within a Commonwealth based or post colonial preferential trading system. The entry of the UK into the European Community relocated the “productionist” model within the Common Agricultural Policy (CAP) that sought wider (and contradictory goals) including maintenance of a rural infrastructure in Western Europe and support for both agricultural production and food processing industries. The UK embraced the international neo-liberal trade agenda, within the boundaries of the CAP, with the signing of the GATT Agreement on Agriculture (Barling 2002). Contemporary UK food policy can be placed within a dominant policy paradigm of national wealth creation through international economic competitiveness. Large food manufacturing industries and large farm producers are

encouraged to compete successfully as export competitors in the neo liberal trading system (notwithstanding the market distortions of the CAP and other national agricultural and food processing support mechanisms). National science and technology policy is geared to supporting these goals, both in agriculture and food technology (Barling and Henderson 2000). Other policy goals such as public health improvements through dietary change, or environmental improvements to the farmed landscape and its biodiversity are pursued within this paradigm. The dominant paradigm offers a privileged place to certain private interests, notably the large corporate players in the food system. The shifting resource dependencies of the food system can also engender dispute, as witnessed between farmers' groups and the corporate retailers. The importance of the market place also allows for the public as consumers to have a voice, although the extent to which the consuming public is being heard or listened to as food citizens in policy making is less clear.

The dominant paradigm as presented is of course a contested one and so sits uneasily astride the demands of UK food policy. There is scope for social agency to generate policy change, be this through consumer activism (Gabriel and Lang 1995: ch. 9), global contradictions (Goodman and Watts 1997) or cultural change (Warde 1997). The rhetorical challenge to the productionist model of the 1980s was promoted strongly from the non-governmental sector in both developed and developing worlds. Their arguments shifted the focus from food production to issues such as: the environmental impacts of food production, the shedding of labour in agriculture, and food consumption and nutrition and its health impacts (Lang 1996). Environmental costs and diet-related health costs (Pretty 1998, Lang et al 2001) as well as food safety crises have evidenced the contradictions of the dominant paradigm. The public health implications of food safety crises have engendered institutional reform, as with the creation of the FSA in the UK. At the EU level food safety responsibilities were shifted within the European Commission to the newly formed DG SANCO (Health and Consumer Protection), followed by the creation of the EFSA.

The CAP's internal contradictions persist – notably in high intervention costs and the subsidised 'dumping' of surpluses on developing countries and world markets (Watkins 2002) - but a direction for reform has been signalled with the intent to shift supports from production supports to non production rural policy supports, including

agri-environment protection and conservation measures, the so-called second pillar of the CAP. In the UK, the replacement of the Ministry for Agriculture, Fisheries and Food (MAFF) with the Department for Food, Rural Affairs and the Environment (DEFRA) in June 2001, signalled a similar shift in intent for agricultural policy. The new department added sustainable development as a clear goal of food and agriculture policy which, while welcome, only seemed to underline further the contradictory goals that need resolution within UK food policy.

Sustainability in the food supply chain should have a clear social dimension, yet there remain areas of relative food poverty, relative nutritional deprivation and food deserts, in the midst of plenty in the UK. In response, the Government's SEU included access to shops amongst its cross-sectoral action areas. However, at the grass roots level there is being fashioned a range of alternative approaches to food supply, often involving public sector bodies, such as local food projects (Sustain 2002a). They are providing alternatives to established ways of managing the food supply chain, and achieving greater social inclusion at community levels. What is missing, it can be argued, is a more strategic approach to such policy interventions. Within the rapidly evolving structure of sub-national government, new elements such as the devolved assemblies and the English regional development agencies could offer a more whole supply chain approach to local food provision.

The institutional reforms do suggest some new opportunities for more joined-up food policy at European levels and in the UK at national and sub-national levels, and there are attempts to introduce both new and joined up policy initiatives in relation to food at all levels of governance. However, an initial analysis of some of these reforms and initiatives, as presented in this article, suggests gaps and discontinuities in this policy integration. The policy frames within which such initiatives and reforms are being shaped are recognising only a partial or bounded integration of food policy, not going as far as either the WHO –E's three pillar model or the ecological public health model. Furthermore, policy integration initiatives can be relatively short-lived, to be followed by the subsequent hiving-off into specific policy sectors, a process described here as "policy confinement." Such confinement will lead policy solutions into established patterns of response and to go down established policy paths. The opportunity for framing the policy response in a more

progressive way is lost. The contention is that such institutional processes are likely to reflect the realities of power relationships within the food system as a whole and work within the dominant policy paradigm.

The bounded nature of current food policy thinking is reflected in a closer examination of the remits of the new institutions, the FSA and DEFRA. The vertical demands of the multi-level polity are also illustrated with the introduction of the EFSA. The process by which policy integration initiatives slip into policy confinement is illustrated by using two recent attempts at joined up thinking on food policy as case studies. Firstly, the SEU's access to shops initiative. Secondly, the proposals regarding closer integration of different actors, or "reconnecting", in the food supply chain put forward by the Policy Commission on the Future of Farming and Food (called the Curry Commission) as initiated and subsequently carried on by DEFRA (PCFFF 2002: 114).

Exogenous shock (s) to the policy system, such as food safety crises, may bring about some policy change, but such policy change is likely to be incremental. For the UK government to meet the aims of the WHO-E's current food policy aspirations, further policy integration will be necessary. Further institutional forms need be put in place that can allow for the evidence base to lead to more joined-up policy. The setting up of a national food council predicated on the experience of the nutrition councils set up by the Nordic countries is put forward as one possible way forward.

Institutionalising a bounded policy integration: The FSA and DEFRA.

The reform of the Departmental responsibilities for the environment, in 2001, was part of the final dismantling of MAFF in response to crises in food safety and farming. The setting up of DEFRA and the earlier separation of food standards and safety responsibilities to the FSA have been the two main institutional reforms in food policy at national level in recent years. These institutional reforms were also an effort to bring fresh approaches to food policy and with it a more integrated policy. But how joined up has the policy advice (in the case of the FSA) and the policy-making (by

DEFRA) been on food? Both institutions are relatively young, but some initial assessment can be attempted and placed within the context of the broader reach of food policy being sought by the WHO-E.

The main aim of the FSA as set out in the enabling legislation in 1999 was: “to protect public health from risks which may arise in connection with the consumption of food (including risks caused by the way in which it is produced or supplied) and otherwise protect the interests of consumers in relation to food” (FSA 2001). Unlike its predecessor unit in MAFF, the FSA could claim to be free from direct sponsorship of any food industry sector, and is answerable to the Minister for Public Health. The scope of the FSA’s remit offers a the potential for joined up policy thinking along the whole food chain, but it has been interpreted in fairly bounded terms. In practice, its rationale remains rooted in the dominant paradigm. As the initial gate- keeper and communicator of scientific advice and of health related food risk (in co-ordination with its scientific advisory committees), it has adopted a role as defender (rather than independent arbiter) of conventional agriculture and farming practice and industrialised food manufacturing. The FSA has adopted a consumerist, market-based approach to many issues of food safety advice, often stressing the role of individual preference and choice. To this extent there has been an open, transparent and consultative approach with a wide range of interests, including consumer groups. What remains unclear is where and how the public health remit will integrate with health strategies at Department of Health (DoH) and at regional, local and community levels, notably on diet and nutrition. It is clear that an ecological approach to public health has not been pursued in the policy advice coming from the FSA.

In March 2002 the FSA advised that it was no longer necessary for consumers to wash and peel fruit and vegetables as a protection against pesticides residues (FSA 2002a). The rationale given was that as all pesticides had been approved as safe for use within specified residue limits then their presence on foods was safe. This decision explicitly overturned the interpretation widely held of a previous release from the Chief Medical Officer from 1997. Friends of the Earth highlighted that the Agency had also been concerned that misinterpretation of the CMO’s advice could mean that only organic fruit should be supplied to the National School Fruit Scheme (FOE 2002). The FSA stated that its concern was that some consumers were being put

off eating fruit and vegetables because they thought they were not safe to eat unless washed first, in conflict with health promotion strategies to include their consumption as part of a healthy diet (such five-a-day) (FSA 2002b). However, just three days before, the Agency had issued a press release revealing that the 'Consumer Attitudes to Food Standards' survey showed that there had been a rise in the number of people eating more fruit and vegetables in the past year (FSA 2002c). Not included in this release was that the survey also showed a significant proportion of consumers held concerns about the use of pesticides on food (50%), when prompted. This concern was equal third with livestock feed, coming after food poisoning (59%) and BSE (55%) as major concerns (FSA 2002d: 59). As Lang has suggested, a joined-up indicator for food policy signifying both environmental and public health protection would be that consumers are able to eat unpeeled (but washed) carrots and fruit (Lang 1997). However, the FSA effectively passed over any opportunity for a fresh debate regarding the health impacts of pesticides and their use in conventional agriculture. In short, the agro-chemical status quo was retrieved, and such joined up thinking avoided.ⁱ

In the wake of an Advertising Standards Authority ruling on the accuracy of health claims made by organic food producers in 2000 the FSA issued a position paper on organic foods. It stated that it: "considers that there is not enough information available at present to be able to say that organic foods are significantly different in terms of their safety and nutritional content to those produced by conventional farming" (FSA 2000). The paper provided scant evidence, one way or the other. The FSA could have provided an opportunity to launch an appeal for much needed research into finding if there are any comparative nutritional and safety differences, and offered seed funding from it's own research budget. No such opportunity was taken, defence of the status quo was seen as sufficient.

The consumerist approach of the agency was reflected in the submission it made to the DEFRA sponsored Curry Commission on the future of food and farming. Based on its own consumer survey evidence it grouped consumer concerns on shopping for food into primary concerns (price, time and convenience) and secondary concerns (intensity of production, animal welfare, and environmental) (FSA 2001). However, no discussion was made of the implications of the secondary concerns

(which go beyond the moment of shopping) for the nature of the food system and consumer's concerns regarding dominant production methods of conventional agriculture. Rather the importance of maintaining regulatory control systems through the food chain was seen as the key to addressing these "secondary concerns". In sum the agency's potential for an advisory role that takes a wider and integrated approach to food policy has not been taken. Rather it has adopted a conservative and relatively narrow approach to its remit of protecting the consumer against "risks caused by the way in which it (food) is produced or supplied..." effecting a defence of conventional agriculture and food production. To this extent it has been willing to take a more activist role, not exactly policy- making, but certainly effective policy promotion, as the few examples given above illustrate.

The FSA was one of several national food agencies either set up or promised in EU member states in the late 1990s and early 2000s. The EU introduced its own agency the EFSA in January 2002. The EFSA's mission is to: "provide scientific advice and scientific and technical support for the Community's legislation and policy in all fields which have a direct or indirect impact on food and feed safety. It shall provide independent information...and communicate on risks" (CEC 2002). The remit reaches along the whole food chain and feed supply chains, but the scientific opinions are limited to food safety only. The scope of the Authority does include scientific advice on human nutrition in relation to Community legislation, and assistance on communication on nutritional issues within the Community's health programme, but only at the request of the Commission. The remit is clearly bounded. The proliferation of national food agencies will also pose a significant challenge to harmony in the multi-level European Polity (Barling and Lang 2002).

The Authority also has the role to "promote and coordinate the development of uniform risk assessment methodologies in the fields falling within its mission" (CEC 2002: 13). In the case of GM crops (part of its remit) the boundaries and methodologies for risk assessment have been highly disputed by member states, sometimes in conflict with the EU's own scientific committees (Levidow et al 2000). The enabling legislation for the Authority recognised that other legitimate factors may have to be included in a risk assessment (societal, economic, traditional, ethical and environmental) (CEC 2002: 2). This was included to fall in line with ongoing

discussion concerning the scope of other legitimate factors in risk assessment at the Codex. Codex has the role of advisory body to the WTO on what are legitimate technical standards for food safety (and therefore comply with the trade rules) under the Sanitary and Phytosanitary Agreements. In this case multi-level governance reaches up to the global level of intergovernmental negotiations.

The reorganisation of the agriculture and environment ministries into a new merged ministry covering Environment, Food and Rural Affairs, in June 2001, signalled the promotion of an integrated rural policy. The aim and objectives of DEFRA recognise the environmental impacts of agriculture, and promises a more protective management of biodiversity, natural resources and the countryside (DEFRA 2002a). The European Commission's intent to reform the CAP through a shifting of subsidies to the second pillar of the rural development programme is endorsed (DEFRA 2002a). Under the Agenda 2000 CAP reform process, a policy known as 'modulation' is the current means for member states to accelerate such a shift. Under modulation an individual member state is allowed to transfer up to 20% of current CAP subsidies from direct production supports to rural development programmes, but the member states must provide match funding (an equal amount) from their own national budget. The extent to which the UK Treasury will sign up to this solution is at the time of writing unclear, as its political priority may be to reduce the costs of CAP as budget expenditure rather than to rearrange and further support it which endorsement modulation would incur. The place of food in DEFRA's strategy is also evolving, if not unclear. The presence of the word 'food' in the department's title is believed to have been a last minute inclusion. The objective for the food supply chain includes sustainable, safe and competitive – a challenging combination. Health protection is linked to adverse environmental impacts and to food safety along the supply chain, there is no recognition of the public health link of diet in the aims and objectives (DEFRA 2002a). DEFRA's sustainable development strategy, subsequently addresses public health in relation to environmental protection (ignoring the pollution consequences of food miles). It places diet and nutrition in the context of the food chain, promising "an assessment of programmes to improve diet and nutrition across government, to see where work can be joined up and focused more effectively on improving health and reducing inequalities" (DEFRA 2002b: 29)". It fails to grasp the link between public health and a sustainable food supply chain.

In the wake of the foot and mouth crisis the Cabinet Office launched the Curry Commission to look at the future of food and farming. DEFRA was charged with the role of formulating the policy follow-up to that Commission's recommendations. The Curry Commission's remit was bounded within the international trade paradigm, to advise the government: "consistent with...increased trade liberalisation" (PCFFF 2002:2). While this remit compromised the nature of the recommendations (Fairlie 2002), the recommendations were wide ranging, and are considered in relation to DEFRA's initial response in more detail in the next section (DEFRA 2002c).

Joined-up policy initiatives: the slippery slope from policy integration to policy confinement

The recent institutional reforms have seen a joining up of some aspects of food policy, albeit in an incremental and somewhat muddled manner. Beyond these bounded reforms further efforts to address aspects of food policy in a more joined up and innovative perspective have been launched. Two examples are the Social Exclusion Unit set up by the Cabinet Office and their Policy Action Team (PAT) 13 on access to shops, and the Curry Commission that reported to the Cabinet Office and is 'owned' by DEFRA. Each case illustrates the difficulties of achieving a subsequent and sustained joined up follow through. In the case of the PAT 13 recommendations the only tangible outcome has been the follow up of an economic small business dimension located in the Department of Trade and Industry (DTI), the needs for policy action on food poverty seem to have stalled. One of the key areas for policy action from the Curry Commission was to provide a more integrated approach to the food supply chain. However, the recommendation that a new food chain centre be located at the Institute of Grocery Distribution (IGD), a food industry research body, suggests a joined-up solution that favours the already dominant interests of the large retailers in the food supply chain – in the pursuit of economic efficiency. Policy initiatives that start as joined-up and cross-sectoral may lose that characteristic by being relocated to more distinct policy sectors dominated by a particular departments or agency (and a bias towards their entrenched client interests). In such cases policy integration slips into a form of "policy confinement". Also, the incorporation of corporate interests into the regulatory process for food may result in the allocation of

the policy solution to established interests within the contemporary food system and who support the dominant policy paradigm.

The Social Exclusion Unit, based in the Cabinet Office, was a prime example of the Blair government's efforts to produce joined up thinking and joined-up policy solutions. The PAT 13 focused on access to shops, a response to the evidence that there are structural determinants to food poverty and poor access that had been slowly acknowledged in central government (H M Government 1992, DoH 1996, Acheson 1998). Issues such as poor planning, housing without shops, a decline in rural and urban transport, unsafe streets, differential pricing, a decline in small and local shops and a lack of disposable income have been evidenced as having an impact (Ambrose and Macdonald 2001, Carley et al 2001, Cranbrook 1998, Ellaway and McIntyre 2000, Piachaud and Webb 1996, Pickering et al 2001, Dowler et al. 2001a). Such factors are beyond the control of individual households or even neighbourhood to control.

A study of Sandwell, an area which is ranked the seventh worst for ill-health in England and where a third of households had gross incomes below £5,500 a year and where a third do not have a car, has shown that while there may be shops apparently within 'range', there are large networks of streets and estates within Sandwell where no shops selling fresh fruit and/or vegetables exist (Dowler et al 2001b). Moreover, where such shops do exist, they are often expensive and offer poor choice. But the low incomes are no incentive for supermarkets to site there. The PAT 13 report's suggestions for 'joined-up' policy on access to shops required action on siting, transport, planning, urban and rural regeneration (DoH 1999). The only visible action, up until June 2002, was relocation of responsibility for the lead on the policy initiative being switched to the DTI. This has resulted in a focus on small and medium business development as opposed to an integrated response to the issue of food access, transport and siting of shops (DTI 2002). An opportunity for a wider engagement of local participants in food issues, for example through local retail forums linked to neighbourhood management strategies has not been taken up (DoH 1999: 33-4).

The Curry Commission produced a plethora of recommendations, several of which focused on the food supply chain. DEFRA are charged with taking the report's recommendations forward in policy terms invoking a further framing of priorities, a key aim being a joined up food chain (DEFRA 2002c: 6). The Food Chain Centre is to operate at the national level, and assumes that the deficiency in current farming and food policy can be framed in terms of competitiveness and efficiency such as promoting and implementing the managerial strategy known as efficient consumer response (ECR). DEFRA's initial priority for the food supply chain is to ensure safety in the red meat supply chain, an initiative aimed at securing consumers purchasing confidence post BSE and foot and mouth, co-ordinated by a Red Meat Industry Forum and the new Food Chain Centre (DEFRA 2002c: 8).

Curry also called on the Regional Development Agencies (RDAs) to devise a regional food component to their economic strategy and to be co-ordinated with the industry centred Food from Britain and its regional groups in order to maximise marketing promotion in overseas markets. Farmers and growers are encouraged to organise post farm gate to get a share of value added from the food chain, with DEFRA suggesting a new Agricultural Development Scheme to help improve their marketing and consumer reach (DEFRA 2002c: 8). In the past dairy farmers' arrangements to gain value added post farm gate fell foul of the Government's competition authorities with the break up of the Milk Marketing Board. Conversely, farmers and growers complaints of unfair practices by the large retailers in respect of food supply contracts merely precipitated a voluntary code of activity. Although, Curry recommended some improvements to the operation of this code, there is no challenge proposed to the dominant power relationships in the conventional food supply chains. The Curry Commission did call on RDAs to consider aiding local food initiatives in terms of processing, distributing, planning, networking, and linking them with established businesses (PCFFFA 2002: 3-48). But the paradigm was that of an import-export trade model of efficiency, rather than a localist, diverse supply chain. To that extent, by pursuing a conventional notion of market efficiency, the government looks set to promote a food supply chain which continues to externalise its environmental costs, lengthening supply chains and use of non-renewable energy (Jones 2001). Conventional trade thereby is accorded a higher priority than environmental protection.

What is also largely missing from these Curry recommendations is recognition of the social dimension to the food supply chain. A sustainable food supply chain should deliver social benefits as well as economic and environmental (Pretty 1998). Social and environmental sustainability are not addressed in a joined up manner, rather economic sustainability is at the forefront. DEFRA's initial follow up document does recognise Curry's limited recommendations regarding the role of food and farming in public health, wanting "to identify and make changes to food and farming which contribute to improving nutrition and reducing diet related ill health" (DEFRA 2002c: 7). It identifies that consumers "need easy access to an affordable, healthy diet" and commends efforts to promote a healthy diet. However, the consumerist mind set prevails, asking, "How can the supply of healthier produce and product lines be increased to drive changes in consumer demand?" (DEFRA 2002c: 17). Public health is viewed in the market terms of the needs of individual consumers rather than the needs of populations. What should be asked is how can farming increase fruit and vegetable production and how can the food chain increase accessibility of supply to all sections of the population?

There is a hesitant progress being made towards an integrated food policy, but bounded remits and the confinement of policy initiatives into more narrow departmental channels remain stumbling blocks. The pre-eminence of the market and economic competitiveness, restrict attempts at joined up thinking progressing to a more integrated food policy.

Moving to an ecological public health model for food policy? A national food policy council and regional/local supply chain strategies

A socially responsive and sustainable food policy necessitates political mechanisms and processes that can frame policy options in a broader and more integrated fashion than has been achieved to date. Wider and more inclusive social agency needs to be incorporated also, extending beyond the seats at the table reserved for large players in the food economy. Recent reforms and initiatives in the UK have been hesitant and incomplete in this regard. The Nordic countries, notably Norway

and Finland, have pioneered a more joined-up food policy around the integration of a public health dimension into their food supply in an attempt to reduce food-related ill health. A key feature in Norway has been a food and nutrition policy that is integrated with agricultural, fishery, price, consumer and trade policy and has had the support of many of the food producers (Helsing 1987, Milio 1990, Oshang 1992, RNMA 1975). However, this has been a contested process. For example, Norway's nutrition policy has come under attack from counter-experts funded by the dairy industry who sought to counter evidence on fat related risks if CHD (Norum 1997). Finland pioneered a grass-roots process of reform through the North Karelia project from the 1970s. The project targeted smoking, blood pressure control and diet, and started preventive activities throughout the country. Over 20 years, the dietary intake of Finns has been monitored and vegetable consumption has doubled. Fruit and berry consumption - the latter culturally important within the Finland also increased. The proportion of saturated fats in total fat consumption declined, while fish consumption rose. The health agencies worked with the food industry to alter the food supply, thereby linking the push of supply with the pull of demand. The result is a culture that encourages Finns to eat for life, not a premature grave. A 55% decline in male mortality in north Karelia from coronary heart disease, for example, has been recorded in the period 1972-92 (Pietinen 1996). A key strategy has been close integration between health and other agencies. For instance, dietary guidelines were designed for schools, other mass catering institutions and other social groups including old people and the armed forces.

An institutional co-ordinator for an integrated approach to policy advice on food supply and public health has been through the National Nutrition Councils in Norway and Finland. These councils have a long history in these countries, and have broadened their role to expand into the wider dimensions of food policy. In the case of Norway, the Nutrition Council is relatively weak in terms of political power and its main success has been in the presentation of the nutritional and dietary evidence (Tansey and Worsely 1995: 219, Norum 1997: 198). To this extent the Council has driven a process of policy learning to which other institutions and actors have responded. The UK needs to find a suitable mechanism for reaching across policy sector barriers that plague governmental organisation and impede efforts at more joined-up thinking in the UK, and that can provide the agency for driving policy

change. In the UK context a national food policy council could be one such mechanism. The UK's implementation of the International Conference on Nutrition action plan took the form of two task forces (on nutrition and breast-feeding) and the inclusion of nutrition in the 1992 Health of the Nation plan (WHO-E 1995). While these were not insignificant steps, they fall short of a framework for the new millennium, and of the type of institutional reform envisaged by the WHO-E, who endorsed the example of the National Nutrition Councils as good practice (WHO-E 1995: 2).

A national food policy council for the UK would be a mechanism for integrating overall policy thinking and for providing Ministers with a channel for specialist advice. The advice would draw from all of the WHO-E's pillars of food policy, promoting an integration of evidence across these areas to inform policy-makers. Its advisory role would fit within the Whitehall tradition. With the demise of the Committee on Medical Aspects of Food Policy (COMA) and its replacement by the Standing Advisory Committee on Nutrition (SACN), expert advice on specific areas of scientific value has been retained but there is no longer any wide-ranging source of advice on overall policy implications. Important avenues of thinking and research have therefore been unnecessarily restricted. The remit of the Council would have to be sufficiently broad and inclusive, and not repeat the bounded approach of the Food Standards Agency. Membership of the Council would need to be multi-disciplinary and need to cover the reach of the ecological public health approach. Such a Council would not be a magic bullet reform, any more than the introduction of the FSA has been, but it could provide a platform for the advance of an ecological public health model of food and for the evidence upon which it is based. It would also provide a potential driver for the national level adoption of the WHO-E's food and nutrition action plan in the UK. However, such policy advance would in turn depend on the response of the lead institutions, DEFRA, DoH and the FSA, and the Government itself within the core executive, and their willingness to move from within the current confines of the dominant paradigm.

The picture at the local level in the UK is one of islands of policy innovation and rethinking or challenge to the dominant paradigm of food policy. At the grass roots levels across the UK, local food initiatives are attempting to set up their own

solutions to food access and supply problems (Sustain 2002a). These are important developments in food policy. Local food projects provide a form of empowerment and learning for participants, but are often fairly isolated initiatives, lacking continuity of funding and permanence (McGlone et al 1998). Also, short term, unsupported actions at a local level while offering policy alternatives, may be unhelpful to the extent that they can generate a sense of a problem being ‘solved’, removing the pressure for more sustained action around the issue of food supply (Caraher et al 2001). A more structural and strategic level of intervention at local and regional levels of governance is needed, also.

The formulation of regional strategies for food supply below the national level chains should be predicated upon social and environmental sustainability, rather than merely location branding and external marketing. The evolving reform of sub-national government in the UK is setting in train a variable geometry of regional and local agencies. These range from: devolved assemblies in Scotland and Wales and an assembly for London, to regional development agencies (and possible assemblies) and revised regional government offices (incorporating the old MAFF regional offices), to restructured local authorities and regional and local restructuring of the NHS. Within this mosaic lies both the potential for both policy innovation but also an awkward geography of regional and local bodies covering differing spatial boundaries. In England the new RDAs may provide a potential platform for such strategic intervention, but it is not clear to what extent their role will go beyond an economic approach to food policy. The sustainability criterion in their role is relatively weak, calling on them to contribute to sustainable development, “where it is relevant in their area to do so” (HM Government 1998: part1.4). The RDAs responsibility covers rural areas and there is scope for a more integrated and sustainable local food production policy to be drawn up with DEFRA and its Rural Director in each regional government office (with the exception of London) (DEFRA 2002a: 34-5). An initial study of the English RDA’s policies in relation to stimulating local food economies concluded “there has been too much emphasis placed on regional locality foods for export rather than local foods for meeting the needs of communities in the regions” (Sustain 2002b). This branding and export marketing approach was reflected in the recommendations of the Curry Commission.

Public procurement, such as through public sector catering contracts, offers a potential lever for engendering more sustainable food supply. The NHS is the largest single purchaser of food in the country, spending £500 million a year on meals for patients, staff and visitors (DoH 2000: 4.16). As a food purchaser the NHS could play an important role in sending important messages along the food supply chain in their food procurement (UK SDC 2002). EU and national laws governing public sector procurement do provide constraints to the scope for such a role. EU competition legislation prohibits territorial preferences being specified in public purchasing contracts (such as local foods). There is scope for imaginative interpretation of quality criteria allowed when applied to contracts for food supply, such as applying sustainability criteria (Sustain 2002c). Local Government legislation in the UK demands that local authorities obtain “best value” in securing contracts and prohibit using non-economic criteria. Initial efforts by the Welsh Development Agency and the Welsh Assembly to get their local authorities to focus on local sourcing for all their contracts were rebuffed by the Welsh Local Government Association as being prohibited under national and EU competition legislation (Pickard 2002). However, Belfast City Council has introduced an environmental purchasing policy to inform its contracting (Sustain 2002d). Also, public sector authorities can help and advise small and medium businesses, such as farmers and growers, how to prepare bids for their contracts (UK SDC 2002). The UK Cabinet set up a Sustainable Procurement Group to make recommendations on a policy framework that joins up the Government objectives for procurement and sustainable development (due to report in July 2002), although food was not high on its agenda (Personal Communication 2002). The scope for such policy innovation within the multi-level governance of public procurement is still unclear and is unfolding. Nonetheless, it provides a potentially powerful complement to the more grass roots based local food projects that have emerged.

Conclusions

A joined-up food policy remains a substantial challenge for the UK. The extent of joined up thinking applied to food policy remains bounded. The UK government has signed up to the commitment to the WHO-E’s three-pillar model of food and health,

but the extent to which it aware of this commitment, beyond the DoH, remains unclear. It will need to broaden its thinking on food policy in order to engage successfully (rather than merely rhetorically) with the WHO-E's model, and so move towards an ecological public health approach. The steps towards a more integrated approach have been hesitant, and confined within the dominant paradigm that informs food policy. The multi-level governance of food is also located within this national economic competitiveness/international trade liberalisation paradigm. Multi-level governance at the supra-national level is a consequence of the priorities of the world trade rules and of the internal European market, although this is not always a harmonious process, as reflected by the disputes over the role of CAP in a liberalising world trade system. These international drivers serve to narrow the breadth of the national government vision. The Curry Commission, a potentially far-reaching platform for policy change, was curtailed by its remit to observe the government's commitment to trade liberalisation.

And yet, the contradictions of the contemporary food system are providing the external shocks to the system of governance to provoke policy change. Food safety has returned as an issue of public health and created widespread institutional change. The need to manage and ameliorate the environmental impacts of intensive agriculture is also being recognised by institutional and policy reform. The diet related costs to public health of the operation of the contemporary food system are being recognised but have yet to be addressed properly, as have the structural causes of food poverty in the midst of affluence and plenty. Countries such as Norway and Finland have found their own routes to develop a more integrated approach to food, the environment and public health, and offer models for more joined up thinking and potential institutional means (such as a national food policy council). The role of a sustainable food supply chain in addressing the social and public health problems of food policy have yet to be grasped by UK policy-makers. However, at the local and community levels there is a change stirring as local food initiatives act as policy innovators in making new links in the supply and consumption of food. It remains to be seen if local and regional governments can provide the structural platforms to promote this new thinking on a widespread basis. It also remains to be seen if the national government can significantly shift its own thinking, in turn.

References

- Acheson, D., (1998), *Independent Inquiry into inequalities in Health Report*, London:HMSO.
- Ambrose, P. and MacDonald, D. (2001), *For Richer, For Poorer? Counting the Costs of Regeneration in Stepney*, Brighton: Health and Social Policy Research Centre, University of Brighton.
- Barling, D. (2002 in press), Impact of international policies (CAP) and agreements (WTO) on the development of organic farming, in F. den Hond, P. Groenewegen & N. van Straalen eds. *Pesticides: Problems, Improvements, Alternatives*. Oxford: Blackwell Science Publishers.
- Barling, D. and Henderson, R. (2000), Safety First? A map of public sector research into GM food and food crops in the UK, *Centre for Food Policy Discussion Paper*, 12. London: Thames Valley University.
- Barling, D. and Lang, T. (2002), Food Agencies: an effective response to a consumer crisis? Paper presented to the Theoretical Approaches to Food Quality Workshop, ESRC Centre for Research on Innovation and Competition, UMIST, Manchester, Jan.10-11.
- Caraher M., Hewitt G., and Dowler E. (2001), *Food action projects in London: A Report to the Food Action Network*, London: London Regional Office NHS.
- Carley, M., Kirk, K. and McIntosh, S. (2001), *Retailing, sustainability and neighbourhood regeneration*, York: Joseph Rowntree Foundation.
- CEC (1999), Europe's Environment: What directions for the future? The Global assessment of the European Community Programme of policy and action in relation to the environment and sustainable development, 'Towards sustainability', COM 13598/99, Brussels: Commission of the European Communities.
- CEC (2002), Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, *Official Journal of the European Communities*, 1.2.2002, L31/1- L31/24.
- Cranbrook, C. (1998), *Food Webs: A report on local food networks in East Suffolk which demonstrates the importance of local shops and services to rural communities*, London: Council for the Preservation of Rural England. 1998.
- DEFRA (2002a), *Working for the Essentials of Life*, London: Department for Environment, Food and Rural Affairs, March.
- DEFRA (2002b), *Foundations for our Future – DEFRA's Sustainable Development Strategy*, London: Department for Environment, Food and Rural Affairs, June.

DEFRA (2002c), *Sustainable Food and Farming- Working Together*, London: Department for Environment, Food and Rural Affairs, March.

Dowler, E, Turner, S. with Dobson, B. (2001a), *Poverty bites: food, health and poor families*, London: Child Poverty Action Group.

Dowler E., Blair A., Donkin A., Rex D. and Grundy C. (2001b), *Measuring Access to Healthy Food in Sandwell*, Final Report, August, Sandwell: Sandwell Health Authority/ Health Action Zone.

DoH (1996), *Low income, food, nutrition and health: strategies for improvement. Report by the Low Income Project Team for the Nutrition Taskforce*, London: Department of Health.

DoH (1999), *Improving shopping access for people living in deprived neighbourhoods: a paper for discussion. Policy Action Team: 13*, London: Department of Health for the Cabinet Office Social Exclusion Unit.

DoH (2000), *The NHS Plan: A Plan For Investment; A Plan for Reform*, London: HMSO.

DTI (2002), *Speakers' notes from Small Retail Service Seminar, 15 February 2002 held at the DTI Conference Centre, London SW1*, London: Department of Trade and Industry.

Ellaway, A. and Macintyre, S.(2000), Shopping for food in socially contrasting localities, *British Food Journal*, 102, 1: 52-59

Fairlie, S. (2002), Commissioning consensus, *Ecos*, 23,1: 52-57.

Flynn, A., Marsden T., Harrison, M. (1999), The Regulation of Food in Britain in the 1990s, *Policy & Politics*, 27, 4: 435- 446.

FOE (2002), *Pesticide Safety Advice for Children to be Withdrawn*, Press Release 26 March London: Friends of the Earth.

FSA (2000), *The Food Standards Agency's View on Organic Food - A Position Paper*, August, London: Food Standards Agency.

FSA (2001), *Submission from the Food Standards Agency to the Policy Commission on Farming and Food for England*, London: Food Standards Agency.

FSA (2002a), *Food Standards Agency advice on washing or peeling fruit and vegetables*, Press Release 26 March, London: Food Standards Agency.

FSA (2002b), *Scientists issue pesticide advice*, Press Release 26 March, London: Food Standards Agency.

FSA (2000c), *Public getting more food-savvy*, Press Release 22 March, London: Food Standards Agency.

FSA (2000d), *Consumer Attitudes to Food Standards - United Kingdom*, February, London: Food Standards Agency.

Gabriel, Y. and Lang, T. (1995), *The Unmanageable Consumer*, London: Sage.

Goodman, D. and Watts, M. J., eds (1997). *Globalising food: agrarian questions and global restructuring*. London: Routledge.

Helsing, E. (1987), *Norwegian Nutrition Policy in 1987: what works and why?* Report from a research seminar, Vetre, Norway 27-28 April, Copenhagen: WHO Regional Office for Europe.

Holliday, I. (2002), Executives and Administrations in Dunleavy, P., Gamble, A., Heffernan, R., Holliday, I. and Peele, G., *Developments in British Politics 6, Revised edition*, Basingstoke: Palgrave: 88-107.

H M Government (1992), *Health of the Nation*, London: HMSO.

HM Government (1998), *The Regional Development Agencies Act*, London: HMSO.

Jones, A. (2001), *Eating Oil*, London: Sustain.

Jordan, A. (2002), Environmental Policy, in Dunleavy, P., Gamble, A., Heffernan, R., Holliday, I. and Peele, G., *Developments in British Politics 6, Revised edition*, Basingstoke: Palgrave: 257- 275.

Lang, T. (1996), Going public: food campaigns during the 1980s and 1990s, in D.F. Smith ed., *Nutrition in Britain: Science, Scientisits and Politics in the Twentieth Century*, London: Routledge: 238-260.

Lang, T. (1997) Food for the 21st Century: can it be both radical and reasonable?' *Centre for Food Policy Discussion Paper*, 4, London: Thames Valley University.

Lang, T., Barling D., and Caraher, M. (2001), Food, Social Policy and the Environment: Towards a New Model, *Social Policy and Administration*, 35, 5: 538-558.

Lang, T. and Rayner, G., (eds) (2002), *Why Health is the Key to Farming and Food*, London: Chartered Institute of Environmental Health, Chartered Institute of Environmental Health, Faculty of Public Health Medicine of the Royal Colleges of Physicians, National Heart Forum, UK Public Health Association, Health Development Agency.

Levidow, L., Carr, S. and Wield, D. (2000), Genetically modified crops in the European Union: regulatory conflicts as precautionary opportunities, *Journal of Risk Research*, 3, 3: 189-200.

- Marsden, T., Flynn, A. and Harrison, M. (2000), *Consuming Interests*, London: UCL Press.
- McGlone, P., Dobson, B., Dowler, E., and Nelson, M. (1999), *Food Projects and how they work*, York: York Publishing/ Joseph Rowntree Foundation.
- McMichael A.J. (2001), *Human frontiers, environments and disease*, Cambridge: Cambridge University Press.
- Milio, N. (1990), *An analysis of the implementation of Norwegian Nutrition Policy 1981-1987*, First European Conference on Food and Nutrition Policy, Budapest, 1-5 October 1990, Copenhagen: WHO Regional Office for Europe, EUR/ICP/NUT 133/BD/1.
- Norum, K. (1997), 'Some aspects of Norwegian nutrition and food policy' in Shetty, P. and McPherson, K., eds., *Diet, Nutrition and Chronic Disease: Lessons from contrasting worlds*, Chichester: J Wiley and Sons: 195-206.
- Oshaug, A. (1992), *Towards Nutrition Security*, Country Paper for Norway, International Conference on Nutrition, Oslo: Nordic School of Nutrition, University of Oslo.
- Personal Communication (2002), Personal communication with Gundala Meziani, Policy Officer, The Soil Association, 27 February.
- Pickard, J. (2002), Welsh council chiefs reject 'buy local' plan, *The Financial Times*, 9 April: 3.
- Pickering, J., Greene, F. and Cockerill T. (1998), *The Future of the Neighbourhood Store*, Durham Reports on Retail Futures 1. Durham: Durham University Business School.
- Piachaud, D. and Webb, J. (1996), *The price of food: missing out on mass consumption*, London: London School of Economics STICERD.
- Pietinen P. (1996), Trends in Nutrition and its consequences in Europe: The Finnish Experience' in Pietinen P., Nishida C. and Khaltav N., eds, *Nutrition and Quality of Life: Health Issues for the 21st century*, Geneva: World Health Organisation: 67-71.
- PCFFF (2002), *Farming & Food: a sustainable future*, London: Policy Commission on the Future of Farming and Food, January.
- Pretty, J (1998), *The Living Land*. London: Earthscan.
- Richards and Smith, M.J. (2001), New Labour, the Constitution and Reforming the State, in Ludlem, S. and Smith, M. J., *New Labour in Government*, Basingstoke: Palgrave: 145-166.
- RNMA (1975), *On Norwegian nutrition and food policy*, report no. 32 to the Storting, Oslo: Royal Norwegian Ministry of Agriculture

SEU (1999), *Improving shopping access for people living in deprived neighbourhoods. Report of Policy Action Team 13 of the Social Exclusion Unit*, London: Department of Health for the Social Exclusion Unit / Cabinet Office.

Sustain (2002a), Local Food; benefits, obstacles and opportunities, *Sustainable Food Chains Briefing Paper 1*, London: Sustain

Sustain (2002b), The English Regional Development Agencies; What are they doing to support sustainable food economies? *Sustainable Food Chains Briefing Paper 4*, London: Sustain.

Sustain (2002c), Public Sector Catering; opportunities and issues relating to sustainable food procurement, *Sustainable Food Chains, Briefing Paper 2*, London: Sustain.

Sustain (2002d), Public Procurement of sustainable Food: Current, planned, and related initiatives, *Sustainable Food Chains Briefing Paper 3*, London: Sustain.

Tansey, G. and Worsley, (1995), *The Food System*, London: Earthscan.

UK SDC (2002), *Food procurement for health and sustainable development*, UK Sustainable Development Commission: London, May.

Warde, A. (1997), *Consumption, food and taste*, London: Sage

Watkins, K. (2002), *Rigged Rules and Double Standards: trade, globalisation, and the fight against poverty*, Oxford: Oxfam International.

WHO-E (2000), *World Health Organisation Regional Committee for Europe. Resolution: The impact of food and nutrition on public health*, 50th Session, EUR/RC50/R8, 14 September. Copenhagen: World Health Organisation.

ⁱ We are grateful to Barbara Baker an MA Food Policy student at Thames Valley University for drawing our attention to this example.