

10.3 What interventions could potentially shift our eating patterns in sustainable directions?

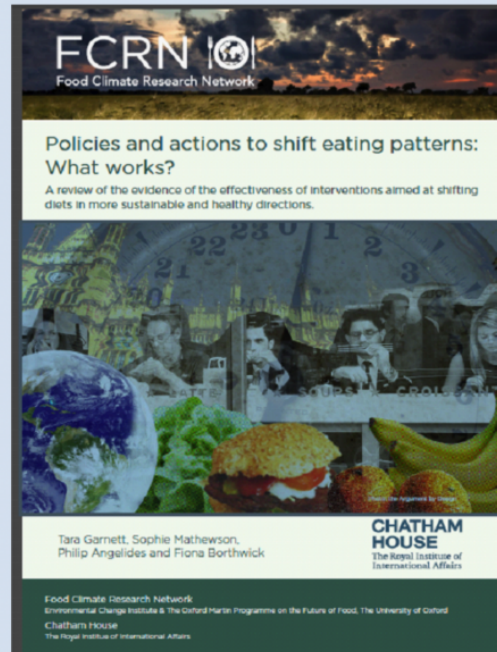
Different typologies of interventions can be categorised:

- Fiscal measures.
- Regulatory and trade interventions.
- Voluntary and industry approaches.
- Interventions focusing on the context, defaults and norms of consumption.
- Information and education raising approaches.

A recent literature review looks at the range of possible interventions

Question

“What does the evidence have to say about effective ways of shifting people’s consumption practices to improve health & environmental sustainability outcomes?”



Garnett, *et al.* (2015)

The Food Climate Research Network and Chatham House carried out a literature review of interventions, classified into a typology. The material in this section is largely based on that research.

10.3.1 Different typologies of interventions can be categorised

Different typologies of interventions can be categorised

Approach	Examples – existing and theoretical
1 Restrict, eliminate or incentivise choices through fiscal measures	GHG-linked production & consumption incentives, payments for ecosystem services, nitrogen subsidies, food related social security support, food, carbon trading
2 Change the governance of production or consumption	Macro economic policies & agreements, employment procurement & planning policies, standards

Approach	Examples – existing and theoretical
3 Encourage collaboration & shared agreements	Voluntary industry agreements, supply chain schemes, supply chain or basket of goods
4 Changing the context, defaults and norms of production or consumption	Advertising & marketing changes, changing nudge, store layouts, catering provision and Monday
5 Inform, educate, promote or empower through community initiatives, labelling and other means	Labelling (e.g. carbon & health labelling), projects, media or other campaigns, education

Adapted from Garnett, *et al.* (2015).

Different mechanisms are available for interventions, including taxation/subsidies, consumer information, voluntary agreements, and regulatory mechanisms. Each of these involve trade-offs in different ways, have inter-dependencies, and overlap exists between them.

Most of the research on this topic is from developed countries, and based upon both modelling and empirical research.

10.3.2 Fiscal measures

Examples of fiscal interventions

Price incentives

Taxation to increase cost of certain foods



Taxes could be applied at production and/or consumption stages.

GHG emissions – e.g. carbon tax for livestock
Nutritional - e.g. sugar tax

Subsidies to reduce cost of certain foods



Subsidies could be applied at production and/or consumption stages.

GHG emissions - e.g. subsidise low GHG products
Nutrition- e.g. subsidise fruit and vegetables

They could be targeted at particular groups (i.e. low income and receiving social security support)

Carbon Trading – allowing emissions to be traded within general carbon trading schemes

Taxes could be applied to foods that have a high negative health or environmental impact, or both. Examples might be a carbon tax applied to livestock; although there are complications with monitoring and applying a specific carbon tax where uncertainties exist (see Chapter 3 for different factors contributing to GHG emissions from food systems). A sugar tax could be applied to influence purchasing of food and drinks high in sugars, although this does not necessarily lead to reductions in GHG emissions, since sugar has a relatively low GHG footprint. There are, however, other environmental concerns arising from sugar production.

An alternative or complementary approach would be to subsidise the production and/or consumption of foods that are nutritionally beneficial and have low environmental impacts, for example legumes, pulses and certain fruits and vegetables.

Identifying the balance between health and environmental impact is complicated however, and can lead to trade-offs and unintended consequences. Targetting just one food may cause changes in consumption of other foods that may generate worse, or differently bad outcomes. Substitution effects are discussed in section 10.4.

Fiscal interventions – research findings

Research overview:

- Most research into the impact of food taxes on environmental outcomes has been model-based since so far there have been few real-life environment oriented interventions.
- There has been more focus on health-oriented taxes, but data are only beginning to emerge (for example from Mexico's soda tax, which was introduced in January 2014: soda sales were 12% lower in December 2014 than in December 2013, although the

health effects of this are not yet clear).

- Taxes have an effect but:
 - Are usually regressive (greater impact on purchasing patterns of poor people)
 - Substitution effects are not clear (this concept is introduced in [Chapter 8](#) [1])
 - May be more effective in combination with subsidies – may be targeted (although see Briggs, *et al.* (2016))
- Health-environment trade offs are possible (see later in this chapter for more on this)
- Taxes may affect the supply chain and profitability of different actors along it, negative, and so there is often industry opposition
- As with any intervention in eating patterns, other influences on consumption need to be considered, such as social norms and culture.

There has been more model-based than real-life research, although real-life examples from Mexico and France have however shown reductions in consumption of target foods from taxation, but the extent of the impact needs to be more clearly understood.

The majority of model-based research and real-life interventions have been focused on health, rather than the environment or health/environment combined.

A common finding in research has been that such taxes can be regressive in nature, disproportionately impacting poorer households without necessarily bringing about the intended health benefits. For example, a tax on sugar could result in poorer groups continuing to buy products high in sugar, and cutting back their spending on other more important things. Taxes and subsidies need to be relative to the socioeconomic context, and allow for positive alternative consumption patterns.

Consumer behaviour is influenced by both price elasticity and substitution effects (see later in this chapter for more on substitution effects and trade-offs).

Some research suggests that a tax of at least 20% is required to have a worthwhile impact.

It is also important to recognise that a tax or subsidy targeting health might not benefit the environment (for example, taxing drinks with high sugar content has more health benefit than environmental due to the relative low GHG impact of sugar).

Taxes could provide government revenue to be applied to other health interventions and services.

It has also been suggested that taxes would harm producers of the taxed products.

Some people question the logic of designing interventions such as taxes and subsidies that target entire populations, to address the needs of particular groups and suggest that more specific targeted efforts and policies might be more effective (for example interventions targeting the most at-risk groups).

10.3.3 Regulatory and trade interventions

Regulatory and trade interventions



National policies:

Some recent standards and regulations are emerging (e.g. public procurement).

Global policy:

Macro economic policies and global trade have contributed to rising obesity following the nutrition transition in developing countries.

This has contributed to environmental impacts through increased trade of food and animal feed as commodities (including processed foods & their ingredients, e.g. vegetable oils).

Lack of research and consensus on what a positive macro-economic policy environment to foster SHEPs would look like.

Gill, *et al.* (2015).

Globalisation of the food system, combined with subsidies (especially prior to 1980s) and the growth in cheap processed food and meat, have contributed to food-health problems. This has been linked to the rise in obesity across regions (see [Chapter 7](#) [2]). How these factors have impacted the environment is less understood.

There is a role for government policy with regard to food retail incentives, but this need to be placed in the context of wider socio-economic and behavioural influences. A good example of this is the concept of “food deserts”, where a prevalence of outlets selling processed foods and a lack of healthy food may contribute to obesity levels in poorer areas of cities – though evidence for this phenomenon is mixed.

Some government standards have been introduced, such as the UK 2014 Plan for Public Procurement, focusing on healthy, nutritional and responsibly sourced food with an emphasis on seasonal fruit and vegetables.

A few governments have produced guidelines for sustainable healthy eating patterns that may influence future policy. So far only four countries have official guidelines: Sweden, Germany, Qatar, and Brazil; quasi-official guidelines have been produced in the UK, Netherlands, Estonia, France and there is also a Nordic-region wide guideline (the Nordic Nutrition Recommendations).

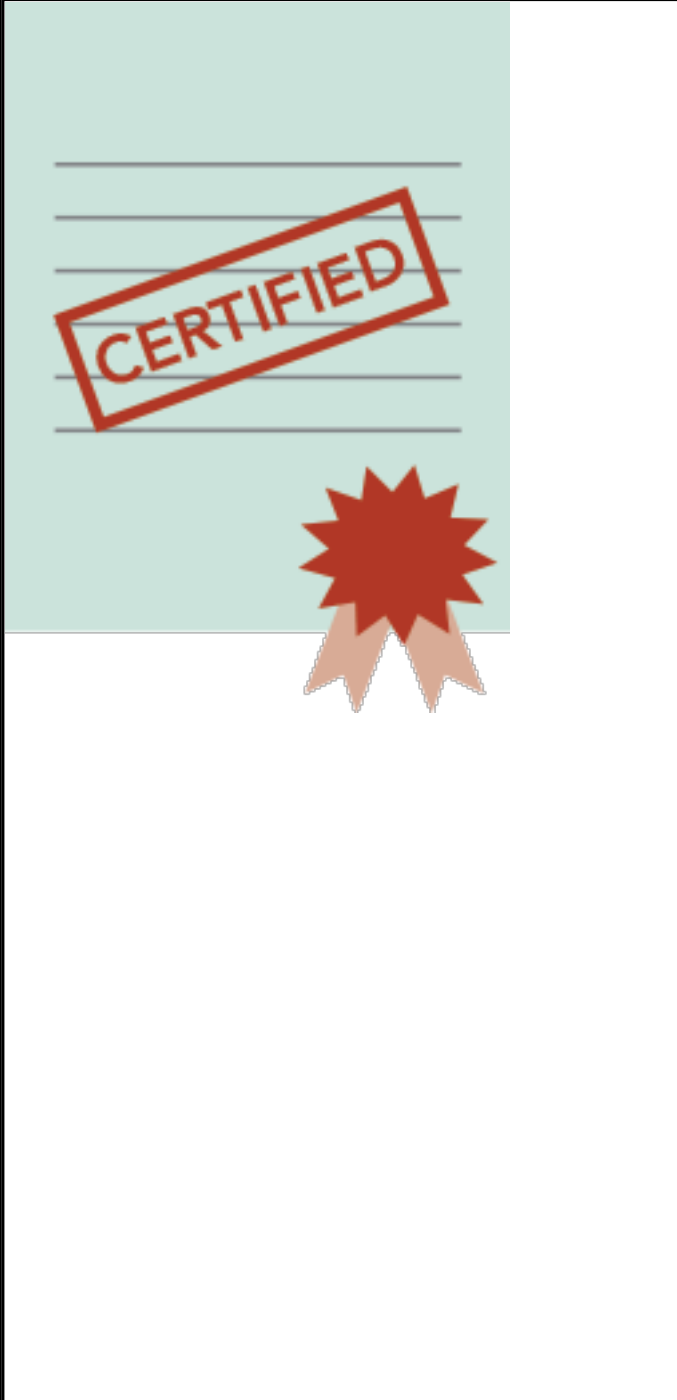
National policies also need to be integrated with macro-economic policies to ensure that global

trade agreements support appropriate availability and accessibility of foods that contribute to SHEPs.

Overall there is a need for more research to understand how macro-economic policies can contribute positively to healthy sustainable food consumption.

10.3.4 Voluntary and industry approaches

Certification and voluntary industry approaches

	<p>Research overview:</p> <ul style="list-style-type: none"> • Nutrition labelling is an established approach, but unclear whether labels result in healthier purchases or whether health-oriented people are more likely to use labels to seek out healthier foods. We also need to factor in the awareness-action gap. • A number of food products are now certified as for example organic, sustainably sourced (e.g. fish), ethical (e.g. Fair Trade). • Certification has a role but is not the solution. The more inclusive certifications schemes are, the greater the risk of diluting their value. Monitoring and evaluation of impacts in the field is often lacking. Market demand for certification needs to increase to incentivise producers to become certified. • Voluntary industry agreements have been mainly health focused, e.g. sugar and salt. There is also self regulation by industry on advertising • The more 'voluntary' they are, generally the less effective. • Voluntary agreements generally are most effective when there is a level of coercion, a threat of future regulation and where there is commercial benefit. • Voluntary approaches alone not sufficient – a policy steer is also needed
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Nutrition labelling is increasingly widespread , but it is unclear whether such labels are driving healthier eating habits.

Many food products can now be certified under different labels, such as Fair Trade, Marine Stewardship Council (seafood), Freedom Food (animal welfare in the UK), various organic certifications, and an emerging concept of carbon footprint labelling. The evidence for both high consumer awareness and actual impact is unclear.

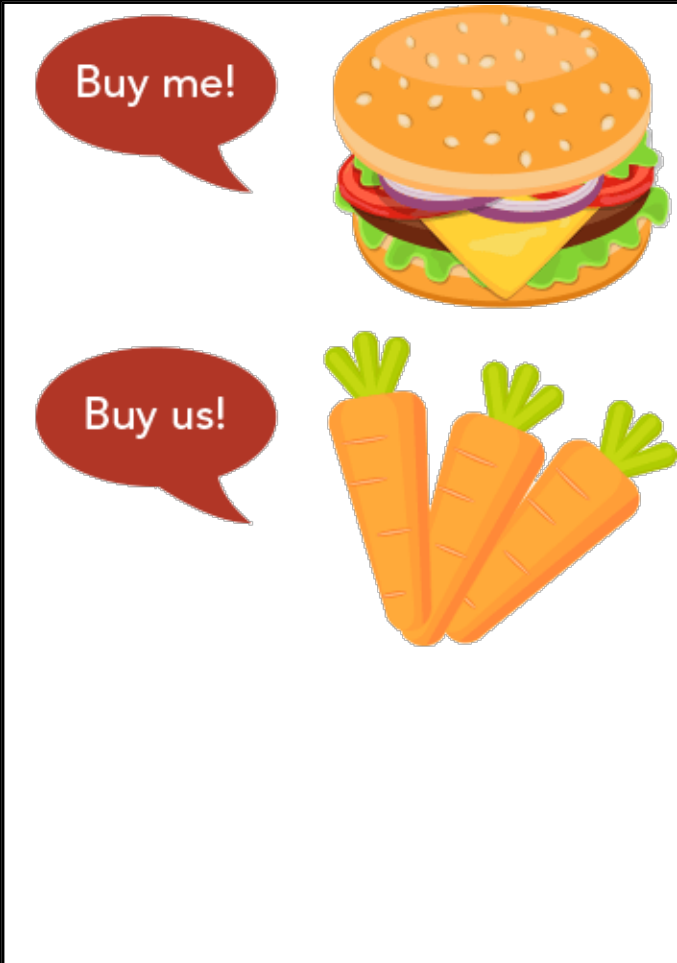
An example of voluntary agreements comes from the UK’s Waste Resources Action Programme (WRAP), where participating companies agree to reduce and manage food waste and in the future planning to focus more widely on how we consume food.

Pledges have also been implemented whereby companies agree to, for example, reduce the amount of salt in various products.

While voluntary agreements and labelling can play an important role, on their own their impact tends to be limited.

10.3.5 Interventions focusing on the context, defaults and norms of consumption

Context, defaults and norms of consumption

	<p>Research shows:</p> <ul style="list-style-type: none"> • Children are influenced by advertising of food products. It affects their knowledge, liking and consumption of these advertised foods. Foods heavily advertised to children are often high in sugar and salt • Regulation needs to keep up to date with technology (for example the growth of social media means that influential advertising channels are evolving rapidly, making regulation difficult) • Some positive evidence for nudging and choice architecture, but long term impacts as yet unclear. • School based interventions have potential if they are holistic - including changes in school meal standards, cooking and gardening projects, and engagement of children, staff and parents.
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Children have been shown to be particularly responsive to advertising of foods high in salt, sugar and fats. While regulation has some effect, regulators and regulations need to keep up to date with the changing avenues for advertising (including via social media), and be aware of

‘workarounds’ from the food industry.

Choice architecture and nudge approaches (design of different ways in which choices can be presented to influence decision making, for example smaller plate size to reduce portion size in buffets) have been shown to have some positive effect, although the long term impact of such interventions is unclear. There is also some evidence for compensatory behaviour cancelling out positive change (for example, people buying more food but in smaller portions).

One setting that shows potential for change is school lunches (for example, the Soil Association’s Food For Life Partnership (<http://www.foodforlife.org.uk> [3]), and Meatless Mondays (<http://www.meatlessmonday.com> [4]) in catering). These approaches tend to combine choice architecture and social norms (changing lunch culture, making healthy & sustainable food the default choice) with voluntary industry commitment and certification schemes.

10.3.6 Community initiatives

Community initiatives

- Developed country initiatives include community supported agriculture (CSA), farmers’ markets and cookery projects. There is a lack of evidence of the impacts of these interventions on healthy sustainable diets.
- There are many initiatives in developing countries including home gardening schemes, small-scale fisheries and animal husbandry. But similarly, good quality research into effectiveness is lacking.
- Note that a lack of evidence means there is insufficient research available – not evidence of no impact.

In urbanised developed countries, there has been a growth in community initiatives such as farmers’ markets, school based growing schemes and community supported agriculture. Evidence does point to some benefits as regards re-connecting people to the value of food, and introducing more people to fresh food, but there is a lack of evidence on how these developments might actually influence a shift towards SHEPs. With regard to farmers’ markets, it might very much depend on the type of food sold – the foods on offer (that include jams and cured meats) are not guaranteed to be both healthy and have a low environmental impact.

In developing countries, there are many initiatives aimed at increasing access to healthy foods, such as school, home or community gardening schemes but again structured evaluation of their effectiveness is lacking. That is not to say these is a lack of effectiveness, but that research is thin on the ground and that impacts are inherently hard to quantify.

Source URL (modified on 06/24/2017 - 20:00): <https://fcrn-foodsource.ouce.ox.ac.uk/node/90>

Links

[1] <http://foodsource.org.uk/chapters/8-focus-difficult-livestock-issue>



[2] <http://foodsource.org.uk/chapters/7-what-connection-between-food-health>

[3] <http://www.foodforlife.org.uk>

[4] <http://www.meatlessmonday.com>