

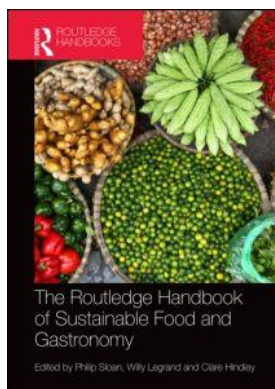
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PART 6

A sustainable restaurant system

Manger est une nécessité, mais manger intelligemment est un art.
(To eat is a necessity, but to eat intelligently is an art)

Duc François de La François La Rochefoucauld

The restaurant industry is a cornerstone of the development of sustainable food and beverage principles and practices. But what is ‘sustainable food and beverage’? In juggling the economic, environmental and socio-cultural pillars, this section seeks to provide some guidance and possible answers to the greatest challenges ahead for this industry so heavily reliant on agricultural and human resources.

Sustainable food and beverage is often associated with organic and fair-trade ingredients. However, this view on sustainable food and beverage is one-sided – if not outdated. Along with sustainable restaurant indicators, there are five general ‘ingredients’ necessary to create a sustainable restaurant: culture, health, nature, quality and profit. **Elena Cavagnaro** discusses those five ingredients in detail via three best industry practices.

Health and nutrition has become a new responsibility of the foodservice sector as meals consumed away-from-home are on the increase. However, responsibility is a double-edged sword: on the supply side this may translate into offering healthier options, while on the demand side, consumers are the ones making the food choices. To help making those choices, the nature, type, display and diffusion of information methods play an important role. **Laure Saulais** also presents the multiple barriers to improving nutritional quality in foodservice.

‘You are only as sustainable as your supply chain’ – for many restaurants, buying products from small, local suppliers is the most straightforward way to make a supply chain more sustainable. However, shortening a supply chain is far from the only (or best, for that matter) way to ‘greenify’ procurement: using the appropriate technology, collaborating with suppliers, and optimising stock management are also crucial. **Christine Demen Meier, Nicolas Siorak, Stéphanie Bonsch Buri and Clémence Cornuz** examine different modalities of sustainability that are incorporated in supply-chain management, as well as the ‘green initiatives’ taken by chain-affiliated as well as independent restaurants.

An alternative of outsourced food procurement is to rely on self-sufficiency. However, the implementation of complete food self-sufficiency in restaurants is a complex and idealistic idea that is proven unfeasible if practised in a single, closed restaurant. However, with close

cooperation between a series of restaurants with a supply chain consisting of one large mixed farm or a network of farms, self-sufficiency may be a possibility. **Jaap Peter Nijboer, Peter R. Klose and Jan Arend Schulp** introduce the Foodzone model, which is designed as a management tool to be used by chefs and restaurant-owners to decide on and assess the level of self-sufficiency and buying locally.

Beyond environmental issues, corporate social responsibility (CSR) is widely adopted by restaurant businesses; however, the interpretation of CSR depends on the individual restaurant concept. **Anders Justenlund** reflects on how CSR could be applied to existing or future business models, by applying the Osterwalder and Pigneurs' *Business Model Canvas*. Four examples of socially responsible and sustainable restaurant practices where CSR is an integrated part of the business strategy are discussed.

Nevertheless; does the *sustainable restaurant* actually exist? **Charles Barneby and Juline E. Mills** discuss what the true meaning of sustainable restaurant may be, from the sourcing of the cutting board to the table on which the food is served. Current standards and flaws in measuring restaurant sustainability are presented and the future of restaurant sustainability is discussed.

22

SUSTAINABLE RESTAURANT
CONCEPTS, FOCUS ON F&B*Elena Cavagnaro***Introduction**

Sustainability in food and beverage (F&B) is often associated with the use of organic and fair-trade ingredients. A recent survey in the Netherlands has shown that sometimes this is not the case: when asked to describe a 'sustainable deep-fried potato', the majority of respondents referred not to the potato or the oil in which it is fried, but to the paper or plastic disposable in which it is offered.¹

This rather astonishing answer might reflect the fact that the interest for sustainability in restaurants in general and food and beverage in particular is quite recent (Cavagnaro and Gehrels, 2009). However, the understanding of both academics and professionals involved in this field is more articulated than a reference to organic and fair-trade ingredients, as this contribution intends to show.

Already in 2006, in discussing sustainable food procurement, Rimmington et al. (2006) observed that, in defining what constitutes sustainable food, at least nine aspects should be covered (see Table 22.1).

Interestingly, in this list there is no explicit reference to organic food, although (as Rimmington et al. note) this is implicit in the second aspect. Fair-trade issues are addressed in aspects three and nine.

Some of the aspects of sustainable food procurement proposed by Rimmington et al. overlap. For example, aspects two and three both deal with providing full and trustworthy information to customers, while aspects one and four both refer to locally sourced food – an aspect that has implications for transportation as well (aspect six). A certain degree of overlap is unavoidable when looking at sustainability criteria. Yet the question arises whether it would be possible to develop a more compact list of basic aspects of sustainable F&B.

In a landmark article in 2010, Legrand et al. proposed an integrated approach to sustainable restaurants involving not only F&B, but also the seating, design and construction of the premises; the furniture, fixtures and fittings; energy and waste; and community engagement. For each of these five categories, indicators were proposed on the basis of an extensive literature review. The indicators were then tested on four London restaurants professing to be sustainable. Of the 32 individuated indicators, almost half pertain to the F&B domain (15 indicators). These were also the indicators that were most easily recognized

Table 22.1 Sustainable food aspects (from Rimmington et al., 2006)

-
1. Select food produced locally.
 2. Give customers the possibility of making an informed, sustainable choice by providing appropriate menu information and food offerings.
 3. Avoid the purchase of foods that have been produced using processes that excessively damage human health and/or the environment.
 4. Explore ways to source from smaller local or regional suppliers.
 5. Process food by using resource efficient facilities.
 6. Choose the most sustainable form of transport.
 7. Source animal food from farmers that comply with standards such as the one developed by the World Organisation for Animal Health.
 8. Assure that food offered to consumers is prepared with the minimum amount of additives, including salt and sugar, and provide information to customers on additives.
 9. Address in a corporate code of practice the issues embraced by the International Labour Organization.
-

during the test, thus confirming the centrality of F&B in developing a sustainable restaurant concept.

In Legrand et al. (2010) F&B indicators' list, alongside organic and fair-trade food products, relevance is given to: sourcing locally and choosing seasonal produce; to the offer of a vegetarian choice and vegan wines on the menu; to attention for the dietary goals and guidelines of the country the restaurant is located in; and to involvement of staff through training and transparent communication with guests.

Although there are some differences in the indicators described in Rimmington et al. (2006) compared to Legrand et al. (2010), it is evident that both support the conclusion that sustainability applied to F&B cannot be reduced to the use of organic and fair-trade ingredients. It is therefore mandatory to keep exploring the boundaries of sustainable F&B in a restaurant context. This is exactly the aim of the next section of this chapter. Before proceeding further, however, it is essential to briefly clarify the understanding of sustainability on which this contribution is based.

Sustainability is a means to reach the goal set by the WCED or Brundtland commission back in 1987: a better quality of life for present and future generations. This goal can only be achieved through a better distribution of resources among and in-between generations, and by remaining inside the limits of the Earth's capacity to sustain life (WCED, 1987; Cavagnaro and Curiel, 2012). In further elaborations of the concepts highlighted in the Brundtland report, sustainability has been described as value creation on an economic, social and environmental dimension both at the level of society and at the level of organizations (Earth Summit II, 1997; Elkington, 1998).

As Legrand et al. correctly state, 'the relationship that restaurateurs have toward environmental challenges and societal concerns is one of a rather remote and intangible nature' (2010, 167). It is therefore useful to remember that there are natural limits that have a clear impact on restaurants' operations. Among these, let us quote here the scarcity of fresh water resources; the decreasing availability of nutrients – such as nitrogen and phosphate – that are essential for modern agriculture; the land's declining fertility; and the limited capacity of the Earth to cope with pollution and waste. As recent research has shown, most of these limits have been exceeded already (Rockström et al., 2009). Restaurants are not only affected by these limits, but also impact on them. Consider for example the case of food waste. While it is true that the main

food wasted is in manufacturing and households, it has been estimated that at least 14 per cent of food waste in Europe occurs in food services and catering (Bio Intelligence Service, 2010).

From a social perspective, labour conditions – both of own personnel and of people employed all along the food supply chain – are considered one of the most pressing issues involved in sustainable F&B. Yet, as will be shown below, less evident aspects, such as respect for a country's culinary tradition, have commanded increasing attention.

Finally, the financial perspective should not be forgotten. It has been observed that many restaurants survive only thanks to the number of hours invested in them by the owner, chef and other personnel. This is of course unhealthy, both for the people involved and for the long-term survival of the restaurant. A healthy financial situation is an essential dimension of sustainability. Not considering it will threaten the organization's continuity, even if the social and environmental dimensions are properly accounted for. In other words, every proposition for implementing sustainability in restaurants should take three dimensions into account: the social, the environmental and the economic.

Five 'ingredients' for sustainable restaurants

Sustainability applied to F&B covers, as has been shown, a broad field ranging from the way food and beverage is produced, sourced, packaged and transported, to the way food ingredients are processed in the kitchen; from respect for the culinary tradition of a country to respect for the people producing our food and wines; from the design of the restaurant premises to energy and waste reduction in the whole food supply chain.

It is a rich and complex field, and this may be daunting for those restaurateurs who are looking for a blueprint on how to implement sustainability in their premises. From a managerial perspective, what is needed are simpler guidelines that still reflect the environmental, social and economic dimension of sustainability.

In the F&B domain, such a guideline has been developed by Albert Kooy, executive chef at Restaurant@Stenden in the Netherlands, in the form of *Five Ingredients for Better, Fresher, Healthier and More Just Food* – the title of his 2013 book. Kooy is a cook and, as he states in the book's introduction, it is as a cook that he is concerned about food. The point Kooy wishes to make is that contemporary patterns of food production and consumption are unhealthy, both for us and for the Earth. The only way forward, in his opinion, is to better understand what we eat and then choose accordingly. To this end, he has developed the 'five ingredients' to which the title of his book refers – these are thus not only applicable to restaurants but also to day-to-day food choices of each of us.

The five 'ingredients' or components that Kooy proposes as a guideline for sustainable food can be summarized using the following five terms: culture, health, nature, quality and profit. Let's briefly consider these ingredients one by one.

Culture asks for respect of the culinary heritage of the region in which the restaurant is situated by using local and seasonal ingredients, and by designing new recipes taking into account this heritage. Although it should be recognized that culinary traditions keep evolving, the bottom line is that a guest should be able to recognize the region and the season from the dish served.

It cannot be doubted that 'local' has become a trend in restaurants. The US National Restaurant Association has even pronounced it to be *the* trend of US 2012 restaurants (Sloan et al., 2013). The appeal of locally sourced food ranges from its freshness, to the opportunity of differentiating from competitors by offering produce that is special to one area.

'Local' is of course a broad concept, and has to be operationalized, for example by referring to climate areas where fruit and vegetables are open-grown or by mileages (see



Figure 22.1 An Albert Kooy dish: spaghetti with cockles from the Waddensee.

Source: the author.

Chapter 25 in this book). It is widely recognized that not all ingredients can be sourced locally. Even looking from a quite broad regional perspective, by considering for example Europe as a region, coffee, tea, chocolate and several spices cannot be produced ‘locally’. Kooy proposes as a rule to use 80 per cent local and 20 per cent imported ingredients.

As a component of sustainable F&B, culture touches both on the social (culinary heritage) and on the environmental (local, seasonal, open-grown) dimension of food sustainability.

The second and third ingredients for sustainable restaurants – health and nature – can be discussed together. The first refers to our personal health, the second to Earth’s. Our health is best served by reconsidering the role that meat and vegetables take in a typical restaurant menu (and in many homes, see Tukker et al., 2009). The principal role is usually for meat, while vegetables are considered background actors. A healthy human diet is based on the reverse choice; in Kooy’s proposition this means designing dishes around the formula: 80 per cent vegetables and 20 per cent meat.

Considering the impact of meat production on Earth’s resources, this choice is also the most environmentally friendly.² And, looking at the relative costs of meat and vegetables, this choice is the most sensible from a financial perspective as well.

Similar outcomes are also achieved by reducing portions; restaurant portions often exceed by far the calories needed daily, and lead either to overeating or to avoidable waste.³ What is not wasted has not to be bought, and thus reducing portions is a sustainable choice financially as well. This may free resources that could be used for buying organic food and beverages, even though these are more expensive than non-organic ones.

In line with Rimmington et al., Kooy’s sustainable F&B manager or restaurateur avoids additives and an inappropriate use of salt and sugar.⁴ He or she prepares dishes starting from

Table 22.2 Kooy's five ingredients and the three sustainability dimensions

	<i>Ingredient</i>	<i>Key words</i>	<i>Sustainability dimension</i>
1.	Culture	Culinary heritage; local, seasonal, open-grown	Social and environmental
2.	Health	80 per cent vegetable and 20 per cent meat; no additives	Social and financial
3.	Nature	80 per cent vegetable and 20 per cent meat; full animal; local; organic	Environmental
4.	Quality	Respect for products and producers (fair trade)	Social
5.	Profit	Profit for all stakeholders	Financial

fresh ingredients and not from pre-packaged components (Pollan, 2009). Finally, she or he utilizes the whole animal – including ‘odd bits’ such as the head and offal. In this way a restaurateur realizes a positive outcome both for the planet and the profit dimension of sustainability.

The fourth ingredient for a sustainable restaurant asks for respect. Respect for the quality of the products and for the people producing them, all over the world. This includes, but is not limited to, choosing products from so-called developing countries with a fair-trade logo. Choosing fair trade is a common recommendation in sustainable F&B. A fair price is an essential element of the social or people dimension of sustainability, as long as the premium price that is paid reaches the producers as it should. Moreover, as Kooy justly notes, it should be remembered that also in the so-called developed countries farmers and other employees in the food chain are often not properly rewarded for their work. Local farmers in developed countries in general, and local farmers producing organically in particular, are often unable to sustain their business due to the low prices paid on the market. This issue should get the same attention from a sustainable restaurateur as fair-trade issues in developing countries.

The last ingredient of a sustainable restaurant is profit. Of course profit is needed for the survival of a business. Yet the profit Kooy refers to here is the result of all the above and consists of creating value for all stakeholders including suppliers, guests, the Earth and the restaurateur.

The five components of sustainable F&B in restaurants proposed by Kooy are easy to remember, and not difficult to operationalize as will be shown in the next section. Moreover, they are in line with authoritative academic literature, such as that discussed in the introductory section, and influential policy documents, such as the report written by Lang et al. (2011) for the Sustainable Development Commission (see Table 22.2).

Restaurateurs in action for sustainable F&B

While the previous section has shown the components of a sustainable restaurant from a theoretical point of view, this section presents three best practices showing innovative ways found by entrepreneurs to engage with sustainability.

The first best practice illustrates Albert Kooy's work at Stenden University of Applied Sciences. He has used the ‘five ingredients’ described above to design the menu of both the Stenden canteen and restaurant. At the time of writing (October 2013), Stenden Canteen has received a nomination as the best Dutch canteen, even though traditional canteen food such as deep-fried frites and beverages with high sugar content are banned. Moreover, it has to be noticed that students of the Stenden Hotel Management School form the canteen and restaurant staff. Students are very dedicated, but not professional staff. That they can prepare dishes based on the ‘five ingredients’ serves to demystify the idea that cooking from fresh, seasonal ingredients and using the whole animal is only for the happy few who master difficult cooking techniques.

All ‘five ingredients’ are applied to the Stenden restaurant and canteen. Yet, it can be said that the central concept in the new (autumn 2013) restaurant menu is the concept of ‘no waste’ and the use of alternative ingredients, such as jellyfish and grasshoppers. More traditional dishes, such as entrecote, are also offered; but then the guest has to pay a premium price. This turns the traditional idea that organic food is expensive upside-down: it is meat that is expensive, not organic food.

Stenden has campuses also outside the Netherlands, in Qatar, South Africa, Thailand and Bali (Indonesia). Together with the local chefs, Kooy is devising menus that respect the ‘five ingredients’ of a sustainable F&B offer.

The second-best practice refers back to the use of the whole animal. Not wasting any part of an animal makes sense both from an economic and an environmental perspective. Waste is economically unsound, because what is wasted has to be bought in advance and affects the environment negatively because – in the case of meat – more animals are needed, and more animals means more farm land needed to grow the cereals that will feed them; more manure and so on (see the discussion in Sloan et al., 2013, on agricultural inputs to the Western diet). The impact of farming on natural resources such as water, its contribution to greenhouse gas emissions and the manure overshoot are some of the issues that call if not for a reduction of meat consumption, at least for a better use of the animals we breed and kill for human consumption. If we look back to traditional cuisine, nothing of an animal was wasted. Respect for the life taken, regard for the work involved in breeding an animal and economic considerations led to the use of the whole animal. With affluence, consumers started to choose only those parts of an animal that were considered more ‘noble’. One of the consequences of this trend is that some animal parts – such as tongue, heads and offal – have quite disappeared from our kitchen. They seem even to be considered not suitable for human consumption.⁵

Fortunately, a movement is developing that wishes to bring back less noble animal parts to our menu. This counter-tendency can be illustrated by the success of Toronto-based cookbook author Jennifer McLagan. She has recently (2011) published a cookbook with the title *Odd Bits: How to Cook the Rest of the Animal*, after having written a book on the use of bones and fat in cooking. In the introduction, McLagan notices that those parts that were considered the most special and expensive, such as the tenderloins and the racks, are now common and cheap thanks to modern industry production methods and because they are easy to cook. And then she states:

I’m not interested in these cuts and you won’t find them here. This book is about the rest of the animal; the pieces we once enjoyed and relished but no longer bother with. Unfamiliar and odd, they have become the ‘odd bits’ [. . .] They are all animal parts we have forgotten not only how to cook but also how to eat.

(McLagan, 2011: 1)

McLagan is very conscious of the need to choose the whole animal from a sustainability perspective. She is also deeply concerned with animal welfare. As she puts it:

Those of us who care about what we eat – and we should all care – must demand that the animals we eat are raised naturally and humanely, treated with respect in both life and death. This is the only way a thinking carnivore can continue to eat meat.

(McLagan, 2011: 2)

As she herself recognizes, McLagan is not the only one interested in the use of the whole animal. In her introduction she quotes Fergus Henderson, the chef-owner of St John

Restaurant in London. In 1999 Henderson published the award-winning book *Nose to Tail Eating – A Kind of British Cooking*. This book soon became a cult-item and, as reminded by Anthony Bourdain in his introduction to the 2004 edition, was instrumental in bringing back to restaurant menus neglected bits of animal.

Among the restaurants that are digging into this trend are restaurants such as The Black Hoof and The Beast – maybe not surprisingly both based in Toronto.

Looking further at waste minimization, an interesting concept is that of Spirit, a self-service restaurant located in Rotterdam. Self-services and buffets increase the post-preparation waste: it has been reckoned that almost 10 per cent of what a guest puts on his plate is not eaten (Bio Intelligence Service, 2010). Daniël Saat, Spirit chef and developer of its concept, recognized that the main driver behind this behaviour is the fixed price paid by guests. As is widely known, one of the main motivators of people behaviour is the desire to guard resources that have been acquired, including financial resources. This desire often works against sustainable choices (Lindenberg and Steg, 2007). Spirit bends this mechanism so that it has a positive and not a negative impact on food waste: they let their guests pay per eaten gram of food. The idea is simple: after serving themselves, the guest weighs his/her plate, and pays for the exact amount of what s/he has chosen. As Saat puts it, this concept has proven a good way to engage guests in waste minimization and is moreover fair both for big and for small eaters. Spirit is successful, and has already enlarged its premises to cater for the increasing demand. Its simple and innovative concept, united to a menu consisting exclusively of vegetarian dishes prepared with organic and seasonal ingredients, has received attention from the SKAL Foundation (a non-profit inspection body for organic production in the Netherlands), making Spirit the only restaurant in Rotterdam that is certified by SKAL.⁶ In this respect as well, Spirit forms a best practice for sustainable restaurateurs.

Conclusion

Sustainable F&B goes much further than the use of organic and fair-trade products. This may be challenging for restaurateurs and chefs, but offers also ample opportunity for their creativity and innovation, as has been shown in the last section. A major challenge is surely constituted by the risk to cater only for a very limited niche. Clear and transparent communication with guests is a must for each sustainable entrepreneur, and even more so for outspoken sustainable restaurateurs who with their menu offer, almost by definition, challenge the F&B habits of their clients.

This said, it should also be remembered that to become fully sustainable, a restaurateur should go beyond F&B and strive to create value on the environmental, social and economic dimension of all choices connected with the restaurant.

Notes

- 1 Personal communication by Eveline de Kruif (KHN – Dutch Category Organizations for Hotels, Restaurants and Caterings, September 2013).
- 2 Meat and dairy account for 24 per cent of the environmental impact of Europeans' consumption patterns (Tukker et al., 2009).
- 3 In so-called developed countries, but also in some developing countries, obesity and weight problems have become serious health issues, with daunting financial consequences. It has for example been estimated that obesity and weight issues would cost the UK National Health Service £50 billion in 2050 (see Lang et al., 2011).
- 4 Inappropriate here means the use of salt and sugar where they are not required for the execution of a recipe (such as sugar in a mayonnaise) or their excessive use where they are required (such as sugar in a jam). On the risks connected with a too high consumption of salt, see Lang et al. (2011).

- 5 To illustrate this point, it may be useful to relate here an incident that happened to the father-in-law of the author. Wishing to cook a typical Italian dish ('rigatoni con la pajata') he went to a Dutch butcher and asked for veal bowel. Unsure about the particulars of preparing it, he asked the butcher about the cooking time. The answer was: 'You do not need to cook it; just throw it in their bowls, and the dogs will eat it.' To the butcher, offal was by definition not for human consumption.
- 6 Information from the best practice on Spirit comes from research carried out by students from the five Dutch hotel management schools during the Hospitality Excellence Program patronized by KHN (Dutch Category Organizations for Hotels, Restaurants and Caterings) in February–June 2013. These students worked under the supervision of Dr Elena Cavagnaro.

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Additional information

- Restaurant@stenden (former restaurant.nl), www.stendenrestaurant.com/RestaurantNL
- Saint John Restaurant, www.stjohnsgroup.uk.com
- Spirit, www.spiritrotterdam.nl
- Stenden Canteen, www.stendencanteen.com/the-canteen
- The Beast, <http://thebeastrestaurant.com>
- The Black Hoof, <http://theblackhoof.com>