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Table of contents

Editorial Note	7
Maria Cristina MARTINENGO <i>The Importance of Food in the Individualized Society</i>	9
Egidio DANSERO, Giacomo PETTENATI, Alessia TOLDO <i>The Atlas of Food Processes, Actors and Representations toward the Food Strategy of Torino Metropolitana</i>	17
Paola GRAZIANO, Paolo RIZZI <i>Food, Agriculture and Quality of Life: the Case of Italian Local Systems</i>	35
Riccardo BERTI <i>Organic food in China: the law behind lüse shipin and youji shipin</i>	45

Editorial Note

Food, the foundation of life, is of global interest, and in many societies always, the focus of political attention, both economically and ecologically. In 2015, this attention has been expressed in the Expo of Milan entitled under the slogan "Feeding the Planet."

The goal of food security requires food adequate both in quantity and in quality. It is especially on the latter - in particular upon the healthiness and, even more often, the pleasure of food - that has a regional focus and more generally via wealthy families. While it is mainly the quality that is explored regionally there are the concerns of the one billion of human beings suffering from hunger and / or quantitative deficiency of certain food components. These deficiencies that focus mainly on food insecurity constitute the major international issue. Food insecurity should be of concern not only to all those who are sensitive to the malaise of others, but also to those who understand that overcoming poverty and hunger can also solve problems of the richest countries.

Food, in its various aspects and relationships with human activities and their environment, was therefore placed at the center of some initiatives of Geoprogress: this Journal called for papers on food, agriculture and environment; "Tourism Days 2015" (whose contributions are published in the Annals of Tourism 2015) discuss the interactions between food and tourism; the first edition of the Geoprogress Global Forum, launched with a seminar during the EXPO, will focus on "Food geography and food security policies" and will be developed in 2016 with a debate on social networks and an international conference.

The first proposed contributions will be published in this and the next issue. These papers treat the character and importance of the food, the forms of production, distribution, consumption and relationship with the natural environment and are seen as a condition and as a result of agricultural production.

Emer. Prof. Francesco Adamo, Editor in Chief

THE IMPORTANCE OF FOOD IN THE INDIVIDUALIZED SOCIETY

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Abstract

Why has food become such a popular topic of discussion in the public sphere of contemporary Western Societies?

This work sets out to answer this question from three point of views.

The first regards the characteristics of the societies at hand and the individualization; the second concerns self-expression and identity as the objective of single individuals and, finally, the third involves the influences from traditional media as well as the new forms of media which are transforming the public sphere and moving the physical venue towards a virtual setting.

1. Introduction: Food as Culture

This work sets out to answer a question relative to the importance of food in the public sphere of contemporary society. (Habermas, 1989).

Food is talked about often: face-to-face during various social occasions, in traditional media, on the web, and food is “done” by experimenting with new foods and cooking techniques, rediscovering traditional foods and preparation, going to restaurants in both orthodox and new style settings (tastings, markets, fairs).

Moreover, food is connected to many areas related to private lives that, however, also concern public choices: the body and physical fitness, health and wellness, economic growth through agriculture and food excellence, and ethics. To sum up, today, food is important: why?

Only those who live in societies characterized by abundance will even thing to raise this question: it is clear, in fact, that where scarcity reigns the answer is simple: food is relevant because there is not enough of it.

This answer takes us back to the material nature of food itself: it satisfies a basic need and represents the response to the stimulus of hunger.

Yet, much research from the social sciences shows that there is more to food than its material nature and that it takes on cultural connotations.

In his work on the theory of needs, Malinowski is the first to discuss cultural response to need and indicates how societies and cultures develop different ways of responding to needs: when applied to food, such responses regard those foods that can or cannot be eaten and the procedures used to prepare them, which observe cultural regulations and standards, elaborated in specific contexts. (Malinowski, 1944).

From this point of view, cultural connotations of food pertain to both societies characterized by abundance and those characterized by scarcity: both, in fact, elaborate preferences and taboos and develop regulations that satisfy the needs in the latter and the desires in the former, to form a cultural system that represents one of

the specificities and components of the identity of the different communities and societies.

Thus, food may be considered culture while it is being produced as well as when it is being prepared and even when it is being consumed. **In this context, the concept of culture is that proposed by Kluckhohn: people follow models learned from their own and reference groups, which drive their actions.**

The hierarchy of “edible” foods, the food system, culinary arts, eating habits, how often meals are eaten and the meanings attributed to food can be considered part of a culture and transcend the material nature of foods, that in and of themselves, can be substituted depending upon their calorie content and capacity to satisfy hunger. (Douglas, 1996; Poulain, 2008)

Food is culture when it is produced in that man creates his own food, when it is prepared because the foods produced undergo a transformation through technology and when it is consumed because its nutritional values are tied to symbolic values. (Montanari, 2007)

In this work two topics will be developed concerning food as culture: the contradictions that pertain to food in the global society and in the more developed societies and, in the latter, food and nutrition as a field in which identity and distinctive practices are elaborated and where commercial and interpersonal influences are exercised.

2. The Contradictions of Food

The field of food and nutrition is marked by numerous contradictions, which set rich countries against poor countries, but they are also present within the wealthy countries and affect all segments of the population.

Globally speaking, the clearest antinomy involving food is the disparity between abundance and scarcity.

In 2014, 805 million people suffered from hunger, with a ratio of one to nine in the global population, despite advances made which reduced the number of people suffering from hunger by almost 100 million for each of the last two decades.

On the other hand, global food waste for the entire food chain was 1,3 billion tons in 2011, but when domestic food in rich countries alone is considered, the discrepancy between abundance and scarcity becomes even more evident. In fact, Europeans wasted 180 kg per capita and Americans 109 kg for various reasons that include the lack of product knowledge, the lack of knowledge regarding good food storage and overbuying due to the consumer culture and marketing strategies. (Martinengo, 2015)

The contradiction between abundance and scarcity is not, however, limited to specific nations, but even within wealthy countries segments of the population live in conditions of absolute poverty and nutritional deprivation. According to Eurostat data, in 2013 9.6% of the population lived in conditions of deprivation and in Italy food poverty included five million and a half people, of whom one million three hundred thousand were minors. (Rovati, Pesenti, 2015)

The second contradiction involves the difference between health consciousness and eating disorders; the most widely discussed topic regards obesity which, most recently, has become the focus of an educational and media campaign as it represents

a social problem which reduces life expectancy, creates illnesses, and consequently increases costs for the national healthcare system.

About a third of the world population, 2,1 trillion people, suffer from obesity or problems tied to excess weight. (Poulain, 2009)

This is a growing problem, since in the past thirty years the overweight and obese population has gone from 857 million in 1980 to 2.1 trillion in 2013, and concerns, in particular, children who represent 47% of all obese people. Obesity is widespread in wealthy countries and is particularly relevant in the USA, as the rate of obesity is 33%. However, the obese population in developing countries alone makes up 66% of the world total, thanks to economic food choices and the increasing popularity of junk food. Moreover, obesity is also the consequence of changes in eating habits in populations in both wealthy and poor countries. Meals have become irregular, unstructured and individualized, leading to a loss of control in terms of the quantity, quality and calorie intake of the foods eaten during the day.

On the other hand, in wealthy countries there is a growing trend towards health conscious eating, based on prevention and a correct lifestyle as a means to remain healthy and related to a greater focus on physical appearance. (Low, Malacrida, 2008)

However, while health consciousness characterizes one part of the population, poor eating habits combined with the increased popularity of junk food typifies another segment, especially the young and the poor.

Problems related to food scarcity and poor eating habits were a topic of discussion at Expo 2015 and are reflected in the “Milan Protocol” designed to join institutions and the general public in an effort to make the food system truly sustainable, based on three objectives: the first is the promotion of healthy lifestyles and the fight against obesity. The second, the growth and promotion of sustainable agriculture and the third, the reduction of food waste by 50% along the entire food chain by 2020.

The contradiction between health consciousness and eating disorders and poor eating habits include other contradictions as well: one of the most significant is the antithesis slow-food - fast-food and that on the one hand recalls the dichotomy between nutritious and correct eating habits and the habitual intake of junk food, and on the other, the need to feed oneself and eat, or rather, between eating quickly, which is hardly social at all and standardized, and slow food, which savoured and conscientious about the nutritional, territorial and identity aspects of food. (Andrews, 2008).

Related to this contradiction is another that pertains to globalization and localism and that is tightly intertwined in the dichotomy fast-slow.

On one hand, the process of globalization places diverse cultures in contact with one another and popularizes cultural models, including food, that can represent examples of good practices and are reflected in the melting pot of foods eaten at home and in restaurants; on the other, it leads to negative consequences that can be summed up, in terms of consumption, in the approval of eating habits and the abandonment of local production, dietary habits and food patterns, with frequent negative fallouts on health.

On the other, there is increased interest in local food, biodiversity and the specific characteristics of the geographical areas, bolstering the market for typical products and the appeal of origin markings, generating fairs and events as well as tourism to promote the discovery and tasting of local food and wines.

3. A Social Area for Food in Contemporaries Societies

Different labels have been used to define contemporary Western societies, but most studies agree that these societies share one distinctive feature: individualization. Individualization is the result of a decline in labour, welfare and the nation state and has led to a crisis among the people, leaving individuals alone to face events and maimed in their capacity to take political action. (Bauman, 2001)

The decline of the “social sphere” – including the nation state, the classes, social movements and even agencies of socialization – leaves space for individualism and the search for personal freedom. Individuals attempt to construct themselves as the subject of their own life, and social categories are replaced by other categories, in this case cultural, that have become a fragmented expression of each single person; the subject, or rather the person and his relation with himself, has become the principle objective. (Touraine, 2005)

There are two faces to an individualized society: individualism opposed to collectivism and the social sphere and individuality, centred on itself and its expression.

These two faces are reflected in different trends: while individualism is expressed in a hedonistic tendency in the search for personal pleasure, individuality is expressed in self-realization, centred on itself, and in an openness to others in the “sub political arenas” in which forms of varying stability and organization can emerge in a period of cooperative individualism. [Beck, 1998].

Food is a field in which these trends are easily recognized and associated with different types of consumers.

In food culture, hedonism is expressed in the search for foods that satisfy personal taste and offer the pleasure of food, and in the search for a dish, rich and exclusive due to the type of food it is made with and the location of the restaurant where the food is eaten.

Self realization, on the other hand, is sought in the quality and health benefits of food, their peculiarities in terms of origin, cultivation and processing, as well as in experiences with new types of food.

Finally, an openness towards others is expressed through the food community, conviviality and an exchange of opinions, knowledge and information in a wide range of behaviours that include the formation of groups of buyers, the implementation of practices aiming to save money and reduce waste based on interests or values, and the use of the web and sites dedicated to food and nutrition.

Individualism represents an initial response to the question this work sets out to answer

The decline of the collective sphere of the social class and lifestyle can clearly be attributed to a socio-demographic dimension and makes it possible for individuals to cultivate their own wellbeing and quality of life by freely making personal choices about what to eat.

In the past two decades a process of empowerment has become evident in all fields of consumption and has involved growing numbers of consumers, characterised by greater awareness and autonomy and by their desire for authenticity in both the choices of goods and in how they use them.

Empowerment is a process that represents the expression of self and is fostered by the growth of information regarding products, product knowledge, and consumer

experiences with the many alternatives offered by the growing number of distribution channels.

This process produces more attentive consumers, aware, informed and often critical of more popular models of consumption.

In the food industry, empowerment is expressed in the search for wellbeing in terms of health and physical appearance, as well as in the quality of life created by the pleasure food offers as an expression of a tradition, a culture or a geographical area.

Food becomes a relevant topic because people can express their own knowledge and awareness as individual consumers in a field they share with a sector of the population that is not in conditions of deprivation. From this point of view, food is a privileged field and the first field in which models of consumption change and consumers experiment with new behaviours.

The process of empowerment is connected with changes of supply that can be interpreted as a cause or as a consequence of consumer change, depending upon whether you believe that consumers are free to choose or hold that they are conditioned by the market.

If the contradictions pertaining to food discussed in the first paragraph were reported in the context of contemporary Western societies, the resulting picture would reveal food as a varied and diversified sector of life.

From the consumer's point of view, individuals move within an enormous "hypermarket of food" produced by the economy of scope, [Lipovetsky, 2006] which allows them an almost unlimited freedom of choice. However, in return, it entails personal responsibility and a number of individual choices that can lead to distinct lifestyles as well as to a wavering between them all.

In terms of supply, traditional goods are connected to industrial and ethnic products, the organic to junk foods, the short chain to the exotic, fast food restaurants to slow food. They offer individuals all kinds of products, consumption styles and various experiences according to individual needs and motivations and represent different ways to express oneself.

A second answer to the question set forth in this work consists in the distinct value of food.

The works by Pierre Bourdieu have identified a few distinctive practices in terms of class: among these, in addition to practices pertaining to high culture, there are others that have to do with body care and food. (Bourdieu, 1979).

Bourdieu identified two styles of eating with evident class connotations: one style values form and the other values strength.

The first is typical of the elite, and tends towards an ideal of thinness, while the second is widespread among the lower classes. These eating styles are based on differences in tastes: refined and delicate on the one hand, and heavy, fat and simple on the other. The middle classes are better educated and have more money; they pursue originality at a low price, experimenting with exotic cuisines or taking up "culinary populism", by looking for and eating traditional country dishes.

Later research has shown that, unlike other practices identified by Bourdieu, food no longer holds a distinct function but it has been standardized and no longer marks the differences in social position. (Silva, Warde, 2010; Bennett et al., 2013). However, the changes that have invested Western societies and that have upset the order of modernity, its institutions and social structure, have also left a mark on eating habits, destroying the traditional criteria which regulated them. This has caused

concern among consumers, lacking guidelines and trustworthy criteria and has forced them to make choices individually and autonomously. (Fischler, 1988, 1990).

This process makes the role of food important in creating a sense of personal identity: if eating is no longer distinctive in a social sense, it continues to be the expression of self, a way to create an image of oneself and transmit it to others, a language that is used to tell a personal story to oneself and others and to distinguish oneself at a personal level. The variety of food found in contemporary society offers, from this point of view, an almost infinite number of variants and shades to express and manifest one's uniqueness and differences

In the individualized society, consumption is the privileged field of self expression, and food consumption, because it includes most people, irrespective of social and cultural inequality, is even more so. Everyone eats, everyone buys and prepares food, everyone has memories tied to food, everyone has developed experiences tied to eating, and everyone can go to the enormous "hypermarket of food" created from the economy of scope.

4. Food and the Public Sphere in Contemporary Western Societies

The third answer to the query this work investigates is related to the changes in the public sphere, in which individuals form opinions and talk about topics of public interest.

In addition to the physical locations indicated by Habermas as places where people can meet and exchange information and ideas, there are now virtual spaces like the television and the web which have, in large part, replaced them.

For the populations in contemporary Western societies these two forms of media dominate the public sphere: television for most of the elderly and mature people and the web for the new generations of digital natives (Palfrey, Gasser, 2008). Thus, for the most part, the topics of public interest are those viewed most frequently on television and the Internet.

The nature and content of the messages transmitted by these media aside, the role that food and cooking have recently acquired in the media in question would seem relevant. (Dahlgren, 1995),

As for television, *Masterchef* is an emblematic case: first transmitted in 1990 in Great Britain, the programme has grown in popularity since 2005 attracting audiences in 40 countries and has led to other similar programmes like *Junior Masterchef*, *Masterchef Professionals* and *Celebrity Masterchef*.

At the same time, programmes on cooking, food and physical appearance and health and the geography of food have multiplied and invaded the programming in all time slots.

In the last few years, a similar phenomenon has characterized the web as well: the Internet offers thousands of sites and blogs with recipes, information on various products, and exchanges of opinion with other consumers and fans. Moreover, the web gives individuals the opportunity to become actors and authors and they no longer simply watch what is offered, promoting a reciprocal influence and growth of interest in the most popular topics presented.

Despite the wide range of topics of discussion presented on the web and useful to varied and assorted groups of consumers, some issues may become particularly important depending upon the demand of the moment and market which manages to

grab the community's attention. In addition to bottom up contributions from consumer, persuasion techniques used by business can be added. The Internet and the new media represent new strategies for the advertising campaigns.

The joint force of the Internet and television reduces the traditional public sphere and makes food a topic of general interest, soliciting the attention and discussion by many and distracting them from more important subjects: the relevance of food in social life seems, therefore, to appear as the result of changes in the public sphere and the capacity of the media to direct the interests of the population.

5. Conclusions

The question this work set out to answer deals with the importance of food in the public sphere of contemporary Western society.

The answers to this question can be found in the process of individualization of these societies and in the meaning of self expression when faced with the decline of the social categories which have characterised the modern age. The field of consumption is a privileged field in terms of self expression, and food represents the most all-inclusive field for consumers in every segment of society and generation. For this reason, food has become a sort of identity card and represents a form of self expression that conveys individual tastes, dietary choices and experiences.

Finally, the changes in the composition of the public sphere, where there are fewer physical spaces and more virtual spaces, have stimulated the emergence of food as topic of community interest.

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THE ATLAS OF FOOD. PROCESSES, ACTORS AND REPRESENTATIONS TOWARD THE FOOD STRATEGY OF TORINO METROPOLITANA

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Abstract

The proposed contribution presents the theoretical background, the aims and the design of an action-research project developed and partially implemented by an interdisciplinary group of researchers based in Turin (Italy), including geographers, planners, IT experts, agronomists, and designers. The core of the project is the development of a methodology of analysis of urban food systems based on the realization of the Atlas of Food: a digital participatory platform, which aims to be at the same time a container of information and a virtual space for participation about food systems. The major scale of analysis and representation of the Atlas is the metropolitan area of Turin, even if information are also collected and organized at other scales, according to specific needs, in order to highlight the multi-scalarity of the food systems.

The Atlas is divided into three main sections: a) a collection of scientific and non-scientific articles, thesis and other materials, about food and food systems; b) a web-gis representing various aspects of the food system centered on Turin; c) a user-generated interactive map, integrating a crowdmapping approach with social networking.

1. Introduction

This contribution describes the theoretical background and the main phases of an action-research project developed by an interdisciplinary group of research based in Turin, including geographers, planners, IT experts, designers and agronomists. The main aim of the project is to develop an innovative methodology of analysis of urban food systems, consisting in the design and the implementation of a multimedia, interactive and participatory tool named “Atlas of Food” (Atlante del Cibo).

The purpose of the Atlas of Food is to provide a space for a participatory, bottom-up, representation of the various elements of the food system, in order to create a knowledge background that could be useful for the policy makers, as well as for any other actor of the system.

The research is developed jointly by the University of Turin, the Polytechnic of Turin and the University of Gastronomic Science of Slow Food, based in Pollenzo.

Even if it is an independent project, the Atlas of Food – as already mentioned - is thought to be a support to policy makers. Some institutions are already involved in the design and the first implementation of the project (such as the Città Metropolitana di Torino) and it is already part of the strategic policies for the urban area, notably

of the strategic plan Torino Metropoli 2025, one of whose visions for the future of the city is Turin Food City¹.

The action-research project is positioned at the intersection between two main fields of research and debate.

The first is the one about urban food systems. After the discovery of the “urban side” of food (Potukuchi and Kaufman, 2000), cities become actors of the food systems at every scale, from the global to the local, not only as markets and places of political and financial decisions, but as scales of research and planning of the food systems. Urban Food Strategies (UFS) and Urban Food Planning (UFP) become then one of the typical fields or actions of urban and metropolitan local government, especially in North America and some North European countries, such as UK and The Netherlands (Sonnino and Spayde, 2014).

In Italy, though, there still is a lack of knowledge about urban food systems and food is still considered as a mainly “rural” topic (Dansero et al, 2014a). Above all, there is a lack of methodologies, setting participatory frameworks for the territorial analysis of urban food systems. Many Italian cities, though, are recently understanding the need to develop cooperation about the study and planning of food systems, not only in order to transfer knowledge and experiences, but mostly because local food systems are embedded in a global food system, whose main nodes are cities. This is witnessed by some important international cooperation projects, concerning the development and the implementation of urban food policies, aiming at fostering the cooperation among cities of different countries². Despite this delay in relation to other countries, recently Urban Food Planning became a part of the urban political discourse in many Italian cities, starting from the pioneering experience of Pisa, where the first “local food plan” has been signed in 2010, to the very recent signing of the Milan Food Policy Pact, in 2016.

The second field of research, to which this contribution refers, is the one about participatory methods for the co-production of knowledge, notably with regard to voluntary geographical information (VGI) and participatory cartography (Goodchild, 2010, Capineri, 2011). The awareness of the role that non-formally expert informants can play in the production of a more complete, bottom-up, knowledge about most social and spatial phenomena, in fact, recently received a great impulse by the availability of easy-to-use technologies for the representation of spatial data, such as GIS software.

Most of already existing processes of UFP - aiming at more sustainable, just and resilient food systems (Sonnino, 2016) - are based on participation, not only during the development of the strategies and the actions of the plan, but also in the initial

¹ The association Torino Strategica (now called Torino Internazionale) was founded in 2000, in order to promote strategic planning methods, monitor its actions, communicate the opportunities for development created by the strategic plans and encourage participation. The other two main visions of the Third Strategic Plan, Torino Metropoli 2025, are Torino University City and Torino International City.

² For example through the European project DEAR (Development education and awareness raising) Food Smart Cities for Development. It involves 12 urban areas over three continents that will coordinate their food policies and their international cooperation activities.

phases of analysis of the systems, starting from the idea of the need of a democratization of knowledge (Haklay. 2013).

The following paragraphs explore more in detail these two field of discussion and research: cities as scale for planning food systems and the role of the participatory production of knowledge in and participatory mapping in food studies and food planning, showing how the project of Atlas of Food contributes to build a more strict relationship between the two.

The third paragraph describes the project, analyzing its evolution, its main objectives and the main next expected steps of its implementation, contextualizing its design in the theoretical and political debate about food systems and food policies.

2. The choice of the city as the core of the Atlas of Food

Talking about food systems means (also) talking about cities.

The city can be a useful scale for researching food systems and for planning and practicing policies and strategies aiming at changing them, for at least four reasons.

First, because an “urban food system” exists, even if its importance – both as urban and as a system – has been for a long time underestimated, or even ignored, by the scientific debate and by the planners’ and policy makers’ agendas (Pothukuchi and Kaufman, 1999).

Second, because – without diminishing in any way the importance of rural areas - we can see cities as the main drivers of food systems at any scale. We can see them at the same time like the head of the food systems, where the main political, economic and cultural decisions are taken, and like its stomach, if we consider that most of the people in the world live today in an urban area.

Thirdly, only in apparently contradiction with the previous reason, because cities are very weak facing a possible crisis of the food system at various scales (Morgan and Sonnino, 2010).

Fourth, because cities already are scales of political action, where policies and strategies directly and indirectly addressed to the food system are developed and practiced, both at the strictly urban and at the metropolitan (city-region) scale.

It is useful to remark, though, that this premise does not mean to underestimate the importance of rural areas, not only as territories of production (of food, natural resources, leisure, etc.) surrounding the cities, nor as empty spaces crossed by the flows connecting the urban network at various scales. They should be seen as living territories, loaded of values, whose wealth and sustainable management is crucial for the global resilience and sustainability, at the environmental, social and economic level. The relationships between cities and (their) countryside are in fact an essential node of food global and local policies, a “paradigm [...] bringing the concept of sustainability into new and more profound significance — that is, as an integrative policy tool that links human and environmental health” (FAO, 2011).

2.1 The Urban Food System

Considering food as a matter of urban policy is a very recent achievement. Its debut on the agendas of urban policies (firstly in North America and in the UK) dates back to the early years of the new millennium. It is a very short horizon if we consider that other vital resources, such as air and water, have been the subject of public policies for much longer.

This absence of such important aspect of human life from the priorities of urban policy makers is primarily due to a misinterpretation food, often thought in terms of a rural issue (Pothukuchi and Kaufman, 1999) and as something mostly driven by the free market. Even if it shaped cities for centuries (Steel, 2008) food disappeared from the debate and the public awareness on urban development. Cities are seen as places of consumption, while the other phases of the food chain almost disappear: most of people living in urban areas have not perception of how and where the food they eat is produced and how it arrives on their tables.

The food system became the less visible of all urban systems (Pothukuchi and Kaufman, 2000). Certainly its great pervasiveness - "food is too big to see" says Steel (2008) - makes it so obvious as to make it almost disappear; but it is this same pervasiveness that gives it a great transformative potential that can affect spaces, political structures, social relations: in other words, cities.

2.2 Cities as drivers of the global food system

Most of the people of the world live today in urban areas (52,7 % in 2013, according to World Bank data) and most of the demand of food comes from cities.

Cities are the places where the main decisions affecting the food system (and places where food is produced), concerning food production, consumption and supply are taken or addressed, by people working in business, finance, marketing, culture.

The shape of cities, its localization, its growth and its flows are largely addressed by the need of food of its dwellers and one of the main functions of cities has always been the one of food market.

Until few years ago, however, the food system has had a very low visibility in the urban planning debate and among urban policy makers, planners and city dwellers (Pothukuchi and Kaufman, 2000).

The modernization brought to a progressive detachment of urban dwellers from food. The Fordist city based on factories and, then, the post-industrial city, based on the service industry, became – for what concerns food – mostly places of consumption, where the other phases of the food chain almost disappeared, at least in the collective consciousness. Most urban dwellers ignore where their food comes from, how it is produced and where their food waste will go and will be processed.

What happened, according to one of the most common and clear descriptions of how food chains evolved in the last few decades, is that the globalized food system, driven by agro-food industry and concentrated retail, progressively de-territorialized food production, making of food a part of international commodities networks (Morgan et al. 2006). This new food geography has its own spatial organization, its territoriality and its landscapes, but it broke the traditional relationship between local food production and local food consumption. Johannes Wiskerke (2009) identifies three processes characterizing the dominant food system: disconnecting of producers, suppliers and consumers; disembedding of food from its place of production, with its values and identities; disentwining of food related spheres of economy and life (e.g. food, care, education and leisure).

Even if the most evident negative externalities of this corporate capital driven system (such as low incomes for farmers, environmental pollution and ecological degradation, loss of biodiversity, food-related health diseases, food unsafety, etc.) are geographically distributed mostly outside urban areas, once again cities are the

drivers of the territorialization of food, since its in urban areas that the demand and the cultural and economic models driving this system are allocated.

On the other side, it is mainly in the cities that practices and cultural movements contesting the conventional globalized agro-food system emerge (Holt-Giménez, 2011), notably when they perform explicit strategies of resistance, trying to shape alternative geographies of food (Wiskerke, 2009) and alternative food networks (Goodman et.al, 2012). These leading role of cities in addressing the debate about food has two reasons. The first is that, despite of the powderization of the possibility to produce culture, due to digital technologies and global instant communication systems, cities are still the places where culture and political movements are mostly produced. The second is that cities are at the same time the strongest and the weakest node of the global food system. Urban ecosystems are in fact very far from self-sufficiency and cities largely depend from importations of food generally produced somewhere else. In addition, the just-in-time system of supply of big retailers situates big cities “nine meals from anarchy” (Simms, 2008), as in case of a stop of food flows towards the city it has been calculated that there would be no more than three days of food autonomy for city dwellers.

2.3 The weakness of the urban food system

The incompleteness of urban ecosystems, especially in terms of availability of agricultural land, makes the city increasingly dependent on the modern agro-industrial system (Steel, 2008; Sonnino, 2009). If, on one hand, it has created benefits for the populations of the North of the world (in terms of affordable food supply), this global system generated serious negative externalities, mostly in the South, which threaten sustainability and socio-spatial justice on a planetary scale.

The current dominant food economy appears to be economically efficient, however it presents important downwards, such as:

- pressure on farm incomes and consequent loss of jobs, skills, expertise and knowledge in the agricultural sector;
- increase of environmental pollution increase, as waste, dependence on fossil fuels, greenhouse gas emissions, water consumption and so on;
- loss of agricultural and natural biodiversity;
- decline of organoleptic quality and product diversity;
- increased competition for land, with land grabbing and new forms of food colonialism;
- consumption of soil;
- vertiginous increase of food-related, especially in the segments of the population with the lowest income.

The dependence of cities from external elements results in a greater exposure to the great crisis affecting the global system, as discussed by the reflections on the so-called New Food Equation (Morgan and Sonnino, 2010). This term identifies a number of major changes that gradually destabilized the traditional food paradigm, revealing problems and weaknesses, such as:

- the growth of prices of agricultural products between 2007 and 2008 (which has doubled the price of wheat and tripled that of rice);
- the increasing food insecurity (related to the increase of the population and boosted by the economic crisis) and its perception as a national policy issue;

- climate change, which affects food systems in terms of availability, quality and access to resources and stability of ecosystems;
- the growing phenomenon of land grabbing and food colonialism;
- rapid urbanization.

2.4 Cities as a scale of research and action

Moving to the third point, it is evident that the city (sometimes meant as city-region) is a scale to which food policies are developed and applied. Everywhere there are sector urban food policies, addressed to food production (urban and periurban agriculture), to food processing and retailing (industrial local policies, retail regulations, markets, etc.), to food consumption (public procurement, restaurants regulations, and so on), to post-consumption (food waste).

Several cities, though, especially in North America and in the UK, moved beyond these fragmented policies, developing urban food plans or integrated urban food strategies, trying to coordinate and integrate sector policies (Morgan, 2009). The scale of these policies is usually the city-region, which is often both a scale of government, ruled by supra-municipal metropolitan authorities (like the Italian newborn *città metropolitana*), and a scale of governance, as witnessed by the scale of most urban sector and integrated policies, rarely contained within the boundaries of one municipality (Salet et al, 2003).

In conclusion, the choice of the urban scale as the core of the Atlas of Food is due to the role of cities in structuring and addressing the food system at every scale and to the operational chances it presents, given the existence of political institutions acting at the metropolitan scale in most of big cities of the world. As already mentioned, the scale of each representation varies according to the aims and the subject, according to the idea that scales should not be seen as fixed spatial attributes, but as the product of processes, relations, actions (Swyngedouw, 1997).

3. Maps, participation and food policies

3.1 Maps and participation

Maps are powerful, controversial and useful tools of territorial analysis.

They are able to represent a selection of localized facts, objects and data, at a given scale, highlighting the relationships and the connections between the objects in space. The synthetic view they propose, let the observer move beyond phenomena, suggesting questions, solutions, and directions. The role of maps in representing and connecting spatially referred data makes them a privileged tool of action-research (Pain, 2004) whose aim is not to produce a representation of the world which claims to be objective, but to collect, represent and interpret information and data, offering theoretical and operational tools to actors, stakeholders and policy makers (Magnaghi, 2001).

In recent years, the principle of participation gained an increasingly important role in the field of cartographic representation, through the emergence and diffusion of methodologies such as participatory mapping and crowdmapping, which are able to integrate traditional top-down cartographic representations with bottom-up descriptions.

Participatory mapping, which was originally based on traditional hard-copy maps, radically changed its nature with the diffusion of GIS and with the birth of the web

2.0 and, successively, with the integration of the two. In 2007, Michael Goodchild introduced the term Volunteered Geographic Information (VGI), categorizing those geographic information systems through which information is gathered by voluntary users who are then considered as human sensors. Since then the term VGI has become representative of a phenomenon that is spreading more and more in the world of geoICT, especially on the web, responding fully to the web 2.0 paradigm where interactivity plays a key role in development choices of the digital platform. The will and the ability to enter geographic information from users involves different challenges and raises new research questions that require an increasingly interdisciplinary approach (Capineri, 2016).

First, the spread of crowd mapping systems led to the emergence of a new figure, the *neo-geographer* (Haklay, 2013), which has not to be an “expert” in order to produce maps and spatial information. The concept of crowdmapping (Aitamurto, 2012) transfers to the field of mapping the idea of crowdsourced information, acquired by large and diverse groups of people, not necessarily previously formed (Heipke, 2010).

Participatory mapping progressively gained a central role in the participatory design and planning processes – often driven by experts – within the framework of the so-called Public Participation GIS (or PPGIS) (Brown, 2013). It is plays a crucial role also in many bottom-up practices, movements and projects, becoming an instrument of what is called counter-cartography, as opposed to maps produced through the filter of expert knowledge and actors characterized by greater power (Parker, 2006 Schofield, 2014).

On the one hand, participatory mapping seems to present an undeniable potential, in terms of democratization of information, especially regarding the inclusion of weaker actors and the empowerment of those involved in the processes (Parker, 2006). On the other hand, though, there are critical voices on participatory mapping, which go far beyond the doubts on the accuracy, quality and cleanliness of the collected data (Flanagin and Metzger, 2008). The main doubt raised in the context of so-called critical GIS (Sheppard, 2005), relates to the actual increasing involvement of the weakest part of population in the participatory processes using GIS tool. The digital divide, ICT illiteracy and asymmetrical power relations, risk hiding the point of views of those who have more difficult access to digital technologies, or who are not familiar with the rational approach of this kind of tools (Elwood, 2002).

It is essential, therefore, to observe the relationships between digital participatory mapping and democratization processes with a sufficiently critical analytical view (Haklay, 2013).

3.2 *Maps in food studies*

In the research about urban food systems, maps are largely present, with various degrees of bottom-up participation, notably when research supports public policies about food.

Maps of various kind are abundantly produced about every part of the food system: production, distribution, retail, consumption and waste. Here we point out four common fields of food studies where maps are specifically used as a tool of analysis and interpretation of facts.

One of the most common cartographic representation is the map of the foodshed of a city or a region, related to the debate about local food systems, food miles, bioregionalism and food security. It is a clear example of the strict relationships between research, representation and action and of the double soul of maps, which are at the same time descriptive (where does the food we eat come from) and prescriptive (where should the food we eat come from) (Cantile, 1998), hence, particularly interesting for this discussion. The concept of foodshed was coined by W.P. Hedden in 1929, in a pioneering book entitled “How Great Cities are Fed” and reinterpreted by Arthur Getz in 1991. The main meaning of foodshed is the area from where the food that arrives to a city comes from. Obviously in the '20s it was mostly a continuous region, surrounding the city, while nowadays it is a fragmented, networked archipelago of places stretching all over the world. Often the mapping of foodsheds is used in a political perspective, starting from the analogy with the watershed, that is the basin from where waters converging to a city come from, which should be as close as possible to the city and as preserved as possible by pollution and ecological degradation. Similarly, mapping the region(s) from where the food feeding the city comes from unveils the absurdity of some food flows and implicitly calls to the action in order to identify as a foodshed an area that is close to the city and consequently should be preserved (Kloppenburger et al.1996) as “fresh food reservoir”.

A second common aim of mapping in food studies is to correlate the spatial distribution of food supply and food demand at the local scale. Typically, these maps are produced in order to find and localize the effects of poverty and deprivation on food consumption and the so-called food deserts. Various defined according to the geographical context (mainly in UK and USA) and the field of research, a “food desert” can be defined as “areas of relative exclusion where people experience physical and economic barriers to accessing healthy food” (Reisig and Hobbiss, 2000, p. 138), or those areas of cities where cheap, nutritious food is virtually unobtainable. Car-less residents, unable to

reach out-of-town supermarkets, depend on the corner shop where prices are high, products are processed and fresh fruit and vegetables are poor or non-existent (The Independent, 11 June 1997; cited in Whitehead, 1998, p. 189).

Thirdly, maps could represent the topological (not always spatial) relationships between some elements of the territory. A typical example are actor-networks maps. This kind of maps are very useful in order to explore how processes and practices are characterized by relationships of spatial or non-spatial proximity and to identify links between the connections between actors, their networks and the territorialities they produce (Raffestin, 2012).

In the end, maps are sometimes used in food studies in an almost metaphoric, non georeferenced sense, capitalizing on the power of mapping as a conceptual tool for organizing facts. It is the case, for example, of maps of values, driving consumers' choices about food (Baker et al, 2004), or of conceptual maps of categories mobilized into the food debate, such as the notion of “local” (Feagan, 2007). Even if these maps are not strictly spatial, they are related to space, because they explore how values can produce what Harvey defines as “relational space”

Moving from research to policies, maps are commonly used as a support to food policies and food planning, both in the phase of context analysis and in the phase of planning and action, sustaining the idea that mapping and representing is an essential component of territorial projects (Dematteis, 1995). Maps are part of most urban and

regional food plans and food charts, with the idea that the process of mapping a local food system itself, notably if it is a participatory process, could help to increase knowledge about the flows of food, to strengthen and multiply the links between the actors and the components of the food web, to build awareness among people (Messer, 2012).

3.3 *From maps to the Atlas*

If maps are a useful, complex and largely used tool for studying, researching and planning food systems, an atlas – which is the core of the project of research-action described here – is something more. Atlases are considered one of the most common “geographical books” and in the academic, educational and cultural market there are several examples of “atlases”, focused on diverse issues (one of the most interesting and popular example is the series of Atlases published by the French newspaper “Le Monde”). Nevertheless, there is still a lack of theoretical and operational debate about what is an atlas, why it can be considered different by an illustrated book with many maps and why it could be useful to produce an atlas of the food system, as a research and planning tool.

The debate about cartographic communication, in fact, underestimates the differences in terms of functions, meaning and power of a systematic collection of maps, compared to a single map (Bonazzi, 1994).

From an epistemology point of view, passing from a series of maps to an atlas means to substitute the representation of various issues and themes with the attempt of a systematic analysis and representation of reality. On one hand, the atlas should be a case for a plurality of perspectives on facts, put together by a shared framework, on the other hand, it should be open to alternative paths of a customized, non-linear, multiscalar fruition by the reader/user (Dansero and Segre, 2000). An Atlas, can then be defined as a systematic collection of cartographic and non-cartographic representations, on various topics, selected and ordered according to a cognitive framework which gives sense to the collection, leaving the user free to change the order of information, choose personal itineraries among the representations, interpreting the information with new perspective, details and scales (ibid.).

The idea of an Atlas of the food system as a support for research and policy is not totally new, especially in the USA and UK debate. A work based at University of California, for example, makes a cartographic review of the global food system, highlighting international flows and disparities about food and agriculture (Millston and Lang, 2008).

A second recent very interesting example of atlas, which emphasizes participation, following the new participative trends of cartography and geography described above, is “Food: an atlas”, a crowd-sourced collection of maps coordinated and published by a group of researchers-activists called “guerrilla cartography”, which “fuses traditional cartography, poster art, infographics, and journalistic text blocking to render the map as a narrative device” (Jensen and Roy, 2013). Definitely a more policy-oriented case of atlas about food is the Food Environment Atlas of the United States Department of Agriculture Economic Research Service (USDA ERS) - which collects and maps statistics on three broad categories of food environment factors: food choices, health and well-being and community characteristics, aiming at stimulating research on the determinants of food choices and diet quality

assembling statistics on food environment and at providing a spatial overview of a community's ability to access healthy food and its success in doing so³.

4. The Atlas of food: a methodology of territorial analysis of urban food systems supporting policies and producing knowledge

The project presented in this contribution moves from the debate and the background reviewed in the previous paragraphs, providing a new perspective in the use of mapping in food systems analysis and planning, notably in the Italian and non Anglo-Saxon context. The main phases of the project are:

(a) the development of the methodology of the atlas in a context where it was so far almost absent;

(b) the integration of various approaches to the representation of the food system, with the use of several different methodologies of representation (not only traditional maps, but also infographics, videos, photos, etc.);

(c) the link between mapping and planning/developing strategies, seen as two inseparable parts of the same process of construction of awareness and strategies about the need of a sustainable, resilient, just food system;

(d) the will to consider the atlas as an open toolbox, from where all the components of the food system can draw knowledge and to which the knowledge produced by the actors should flow.

The project of the Atlas of Food (in Italian, Atlante del Cibo) comes from a multidisciplinary academic context (University of Turin, Politecnico of Turin and University of Gastronomic Sciences), but soon has become a crucial step and component of the process of design and development of the urban food strategies of the city of Turin (at the metropolitan scale), which is going towards the creation of a food commission aiming at making of the city an international model for the quality and the accessibility of food and of the urban food system a strategic asset of the future post-industrial city (Dansero et al, 2014b).

In Northwestern Italy, between Milan and the French borders, with a population of 900.000 (about 1.5 million, considering the urban metropolitan area), Turin is the fourth biggest Italian city for population.

Turin belongs to a territorial system where food is considered as a mature economic, social and cultural asset, which contributes to a regional development increasingly based on high-quality food production (wine, chocolate, nuts, cheese, etc.) and food and wine tourism, which are gradually taking the place of heavy industries in the economic system and in the discursive representations of the area (Dansero et al, 2014).

The general objective of the project is to develop and implement an interdisciplinary methodology of food system analysis and assessment, at the metropolitan scale, through traditional charts and maps, participatory mapping and a strict relationship with social networks, notably an innovative social networks

³ <http://www.ers.usda.gov/data-products/food-environment-atlas.aspx>

developed at the University of Turin (project First Life⁴), for field action, leading to an innovative interactive Atlas of Food, divided into three main sections:

- a review of already existing studies, maps and representations about the food system which are critically reviewed and organized, in order to produce a catalogue of the different existing knowledge and representations;
- a collection of static maps, specifically produced for the atlas, representing data about the food system coming both from official archives (e.g. census) and from users and actors of the food system. The static maps will be open to updates and corrections, following the suggestions of users;
- a platform for users-generated, dynamic, interactive maps (webgis), based on crowdmapping and the integration with social networks. The aim of this section is both to give answers, about data and information which cannot be top-down produced and, mostly, to raise questions, making hidden topics, connections and information about food emerge.

The Atlas of Food of Turin, has the following aims:

- to provide an open access tool, collecting and representing data, information and ideas about the food system at the city-region scale;
- to support the public-private network which is working at the establishment of a food commission, through analysis of the food system, development of scenarios and suggestions for the food strategies, aiming at the enhancement of sustainability, equity, participation and resilience of the food system;
- to increase the awareness of the actors of the food web about food, fostering the visibility and sharing of the issues linked to the different phases of the food chain;
- to provide a platform where the stronger and weaker actors of the food chain can virtually meet, reciprocally know, share ideas, creating an opinion making critical mass able to address food policies;
- to monitor the food system regularly with a participatory approach, reporting changes, trends, opportunities and threats.

The data and information collected and produced by the Atlas are organized following a double systematization.

- The first, links the maps and representations to the different phases of the food chain: production, transformation, distribution, consumption and post-consumption (waste).
- The second links the representations collected in the Atlas to the various issues into which the multidimensionality of the food system could be divided: education, culture, health, environment, equity, economic development, and so on.

In the project of atlas, big importance is given to participation. As pointed out in the previous paragraphs, participation is considered fundamental in contemporary cartography, as it is the only way to integrate the top-down representations with other information which can be identified only with a bottom-up approach and with the involvement of people who are directly interested to the cartographically represented

⁴ <http://legal-informatics.di.unito.it/firstlife/>

issues. This is particularly important in an analysis of the food system which aims at support policies, because it could let emerge representations, needs and knowledge also of weak actors of the food system (e.g. consumers or farmers), trying to highlight and foster their role in the system. Participation will be guaranteed through the implementation of the social networks First Life and, in particular, through the engagement of different stakeholders in the food system. Thematic workshops will be organized with the aim not only to enrich and verify the mapping, but in order to build and strengthen social relations between the subjects of the system.

5. The atlas of food and the Turin food policies

Among the first Italian cities with Pisa and Milan, even if some years late compared to the most known international experiences, Turin recently launched some projects aiming to build an urban food policy. The turning point can be identified in the growing awareness about food multidimensionality. This means to pay more attention about the simultaneous and deep relationships between food and many urban policies (environment, transport, health, culture, etc) and to move from sectoral policies to a more systemic and integrated urban food strategy. This awareness is gained in different urban environments, such as the public administration, universities and research communities, civil society. Also for this reason, and failing of an official coordination and a strong legitimacy, the process is still fragmented in at least three main different projects:

- (i) “Torino City of Food”,
- (ii) “Nutrire Torino Metropolitana” and
- (iii) “Food Smart Cities for Development” project.

The first process, “Torino City of Food”, is one of the three advisory panels established by the Third Strategic Plan "Torino Metropoli 2025" realized by the Torino Strategic Association and it is the result of six months of participated process among some of the main representative actors (as producers, distributors, consumer associations, academics, artisans and representatives of civil society and NGOs) of the Turin Food System. The main purpose of this process was to develop a vision of the future and establish an agenda of projects and actions to promote and enhance a quality food system for Turin. In this sense, it is necessary to combine the idea of food as an urban economic driver with its dimensions related to public health, inclusion and spatial justice, solidarity, culture.

The roundtable has identified several projects to be implemented in order to achieve this ambitious vision. The two most important are:

- the establishment of a new body, called “food commission”, able to integrate the typical aspects of food policy councils with those of enterprise aggregators and incubators;
- the implementation of food Atlas of Turin, with the goal to analyse and represent the metropolitan food system.

The second, “Nutrire Torino Metropolitana” (Feeding Metropolitan Turin) is a participative process designed and organized by the Metropolitan City of Turin and the University of Turin with the aim to create a Strategic Food Agenda, as a first step towards a Metropolitan Food Strategy. The first stage of the process consisted of

three workshops involving more than two hundred stakeholders of the Turin food system, according to an inclusive and participated approach.

In particular, in the third meeting, which closed the first stage of the process, there was the return of previous workshops and a first discussion towards the construction of the Metropolitan Food Agenda, which led to the definition of eight concrete work themes: (i) education and training ; (ii) information and knowledge; (iii) distribution and logistics platforms; (iv) public procurement; (v) simplification; (vi) awards and quality incentives; (vii) land use planning; (viii) new forms of governance.

The heritage of this process is a big capital of knowledge, relationships and perspectives. The next step will be to deepen the eight themes, maintaining participatory methods such as those of the thematic round tables and condense them in an operational document. The Metropolitan Food Agenda, in fact, should be brought to the attention of local institutions and allow to bring out other ideas, projects and innovative experiences, which may be accompanied and supported by European or regional funds or public and private sponsorships. Furthermore, the Agenda also should be an integral part of the future strategic plan of the Metropolitan City of Turin.

Finally, the Food Smart Cities for Development is an international project funded by the European Commission's development, education and awareness raising programme (DEAR). It involves, in addition to Turin, 11 other urban areas over three continents that will coordinate their food policy and their international cooperation activities. As regards the city of Turin, one of the main objectives concerns the construction of a urban food governance structure, like the Anglo-Saxon food policy councils.

In all these processes, the role of the Atlas of food (explicitly mentioned in the first two) is very important in terms of knowledge, analysis and representation of the actors, the dynamics, the relationship, the resources and tangible and intangible flows, which constitute the food system at metropolitan scale. In this sense, some research conducted within the Atlas project have been used by these processes to better understand (and more appropriately operate) in some fields, such as the school meal. More generally, the maps produced by the Atlas are helping to structure these processes, and to create a relationship of cooperation and synergy between them, with the aim of achieving a single process, strong and empowered, leading to the construction of a Turin food strategy.

6. Conclusions

The project of Atlas of Food developed in Turin and presented in this contribution is now (june 2016) coming to the crucial milestone with the construction of the online platform. This phase follows almost two-years of definition of the conceptual framework sustaining the project and of political work linking the Atlas to the political processes toward the definition of urban food strategies in Turin.

The idea behind the project, in fact, is that the production of knowledge should be not only a support to food policies, but also a crucial step of food policies themselves. This is true if their aim at enhancing the equity, the resilience and the sustainability of the food system, through a participatory process, involving all the actors of the system.

The methodology presented here, although referring to the international debate about mapping, food policies and participation, has been developed and it is being implemented in a specific geographical context (Turin), where the relationships between food, people and the territory followed a peculiar path.

The hope, though, is that this methodology could be considered as a useful methodological suggestion also for other cities and regions, both in the North and in the South of the world, considering the power of representation and bottom-up participation in the definition of food policies as a universal value of democracy. A real participation is a necessary base for local food policies avoiding replying at the local scale the power unbalances characterizing the contemporary globalized food system. Contrarily, they should be able to effectively address the system towards a greater equity, sustainability and resilience, involving and giving voice to those who are more weak in facing the challenges and threats of the “new food equation” (Morgan and Sonnino, 2010), such as food price surge, food insecurity, land conflicts and environmental degradation

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FOOD, AGRI-CULTURE AND QUALITY OF LIFE: THE CASE OF ITALIAN LOCAL SYSTEMS

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Abstract

The typical product is not just a food, but it is the product of a local system, of its natural and cultural resources; it is the representation of several material and immaterial assets of territorial capital. The balance between quality of food production and quality of territory is the new competitive edge. In this work we move from this idea and apply a model to describe the relation between well being (represented by quality of life and a subjective measure of life satisfaction), quality of territory, quality of food as well as wine production. The model is then applied to the case of Italian local agro food systems.

1. Introduction

Local agro-food systems that show good economic performance are characterized by patterns of integrated development combining quality of production, quality of territory and landscape and quality of life (Abraham et al., 2010; Thompson, 2011; Azadi et al., 2011; Marsden and Sonnino, 2012). The objective of this work is to study the contribution of some specific features and phenomena regarding quality of territorial capital (Camagni and Capello, 2012) on well being of local agro-food systems. A conceptual framework is adopted (Kweon et al., 2010; Bessiere and Tibere, 2013; Kim et al., 2013; Wu, 2013) to represent the relations between well being and these assets in local agro-food systems.

This scheme is applied to the case study of Italian agro-food systems. The aim of the work is to obtain a map of Italian local systems and to describe it, using different dimensions, with a focus on food production and, in particular, wine production. The choice of this focus depends on the fact that wine production and tourism represent today an economic and cultural model that designs new trajectories of local development (Miele, 2008; D'Amico et al., 2014).

2. The model of the local agro-food system

The model of the agro-food system is described by theoretical and empirical frameworks that highlight the importance of the different dimensions of territorial capital and the relationships among attractiveness, quality of food and wine production, tradition, cultural and environmental protection (Moragues and Sonnino, 2012; Marsden et al., 2013; Symbola, 2015).

Some of these features can be described using the marshallian district framework: high density of small and medium size companies, geographic concentration, networks of external economies that support informal and formal links between producers, workers, institutions (OECD, 2006). But the balance between quality of product and quality of territory, reminds some characteristics of institutional cultural district: strong connection between quality of territorial products and local *savoir vivre*, development of aesthetic, technological, anthropologic and historic resources of territory (Santagata, 2002).

The typical product is not just food, it is the product of a territory, of its natural and cultural resources. It has a story to tell. It is not just a raw material, a method of production or a taste: but it refers to a socio-cultural system (Allaire et al., 2011). The parable “from flavors to places and from places to people” makes the taste an important descriptive element of the territory and its identity. Local products are often the focus of specific territorial branding strategies aim at defining and rebuilding the image of territories, according to an inside-out approach (Anholt, 2007; Dioli and Rizzi, 2010; Kavaratzis, 2005; Morgan et al., 2007).

The French term *terroir* is a key point of reference in order to define territorial attractiveness⁵. The social and agronomic meaning of the term *terroir* is linked to the morphological, agronomic, historical, human and cultural markers of local systems (Waltert et al., 2011) which differentiates territories, enhances competitiveness of individual products, increases the appeal of the area in view of quality and uniqueness, promoting full respect of natural environment and landscape.

The wine tourist destinations offer precisely these regional characteristics and especially, human relationships and quality of landscape, which are hard to find in urban destinations or mass tourism (Rizzi and Virtuani, 2010). The wine fits with the food products in the policies to promote the area as local added value, enriching projects of place marketing/branding through events exhibitions and museums, able to attract visitors as well as consumers. The cases of excellent Barolo/Langhe (Piedmont), Franciacorta (Lombardy) and Chianti (Tuscany) in Italy reveal that wine can brands an entire region, working first as a promotional mean and tourist attractor, integrating environmental, physical and cultural dimensions.

Nature, culture, events, tasting are increasingly designed as opportunities for direct involvement for the consumer / visitor looking for experiences rather than products or goods, human relations and cultural events rather than consumption (Scott et al., 2010; Sengel et al., 2015). Places of wine production are naturally oriented to promote experiential tourism and intercept these new dimensions of the consumption demand because the visitor is now "an active producer of meaning". The territories have to face the competitive challenge that involves not only producers and their associations or business unions, but the local systems in their articulated structures, educational institutions, local governments, cultural institutions and museums (Casini et al., 2010; Bertella, 2011).

A conceptual framework is adopted (Kweon et al., 2010; Bessiere and Tibere, 2013; Kim et al., 2013; Wu, 2013) to represent the relations between well being and sustainable competitiveness in local agro-food systems. Well being is the output of

⁵ It is defined as “an expanse of land with certain characteristics identifying it from an agronomic perspective. These characteristics originate from the *terroir* physical qualities (e.g. elevation, climate, exposure, soil, etc.) and are also consequence of human intervention such as irrigation, drainage, terracing (Vaudour, 2003: 336)”.

this model and it is defined by two dimensions: quality of life and life satisfaction. Sustainable competitiveness is identified as multidimensional driver of well being and several components are associated in the sphere of environment, economic and human development. This model is shown in the Figure 1.

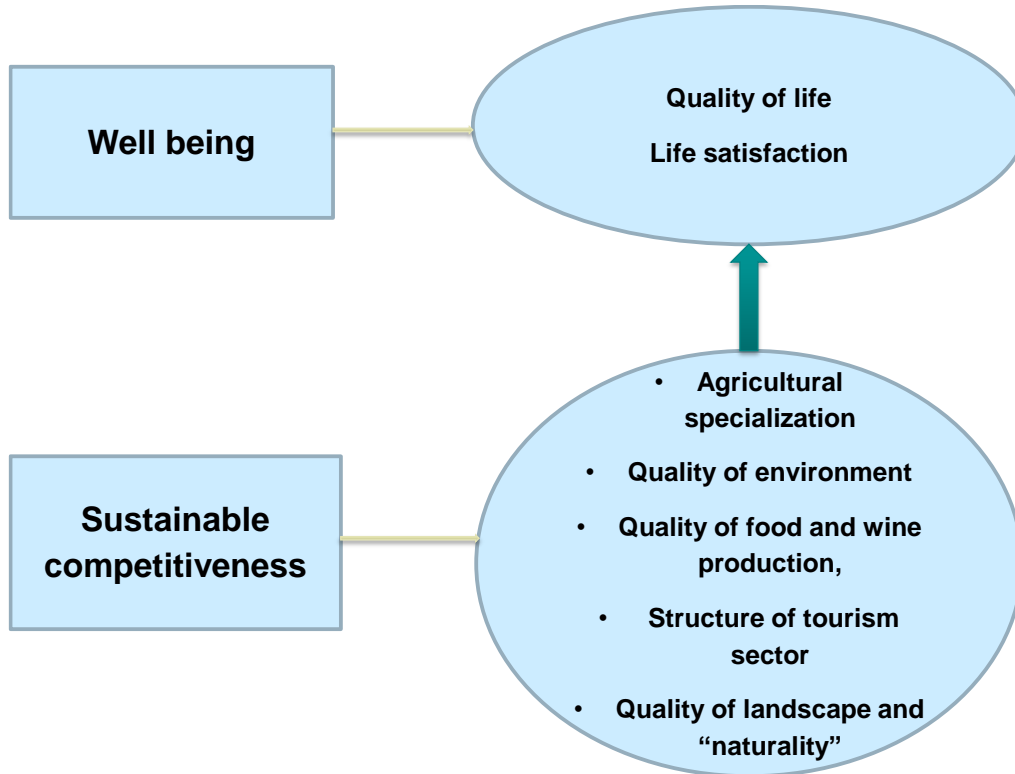


Figure 1: The model of local agro-food systems

3. Quality of food production in the Italian agro-food system

In the ranking according to the distribution of quality labels in Europe Italy shows the best performance, with 261 quality labels in food products (Pdo, Pgi, Tsg), followed by France with 208 products and Spain with 173, as shown in Figure 2. To investigate the reasons of the best performance of Italy we use the described scheme using elementary variables and composite indicators with a focus on wine production.

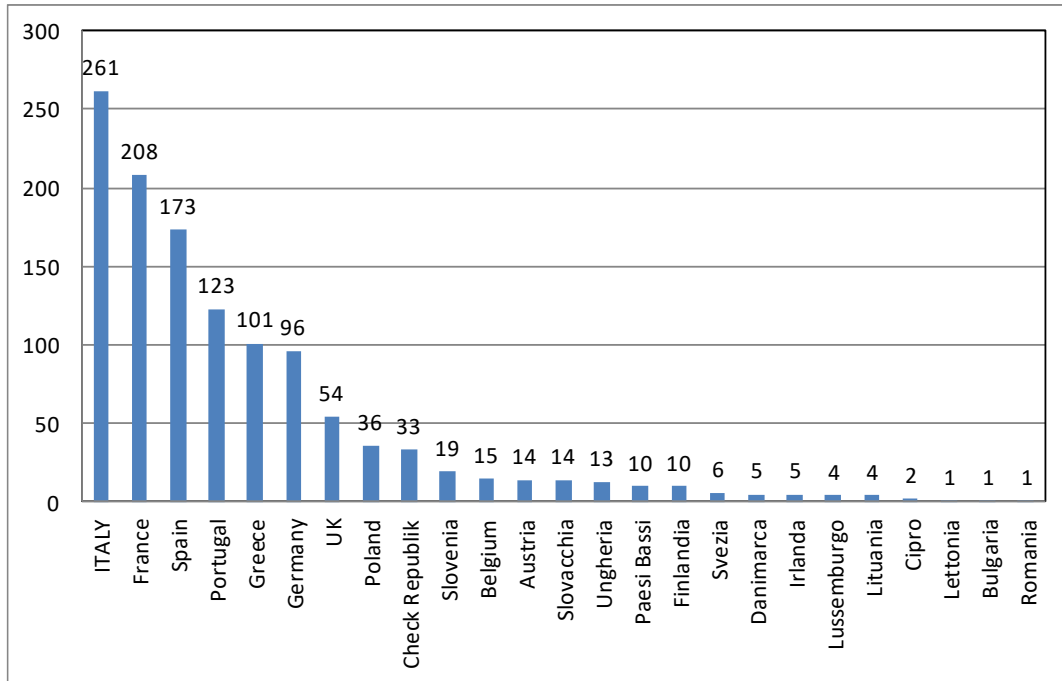


Figure 2: Distribution of quality labels in Europe

Source: European Commission - Geographical indications and traditional specialties, 2014

We choose to run a territorial analysis because of the different distribution of Pdo, Pgi and Tsg at both regional and provincial level as we can see from figure 3, which highlights the best results of Emilia Romagna and Lombardia (126 and 125 products with quality labels). This result is partially reflected at provincial level as shown in the corresponding ranking, where the provinces of Bologna, Forlì-Cesena, Modena and Ravenna in Emilia Romagna and Brescia and Bergamo in Lombardy are in the group of the best. For the empirical application of the theoretical framework both the region and the province as units of analysis and a period of time from 2009 to 2014 are considered.

In order to apply the proposed conceptual framework to the case of local agro-food systems in Italy the composite indicators of quality of life calculated by Sole24ore and a subjective indicator of life satisfaction are used to represent well being. For the representation of the multidimensional driver 18 variables were collected, using as sources the main Italian datasets, reports and studies conducted periodically in Italy on the social, environmental and economic systems. We obtained one dataset made of 20 observations for regional analysis and another one made of 103 observations for provincial level.

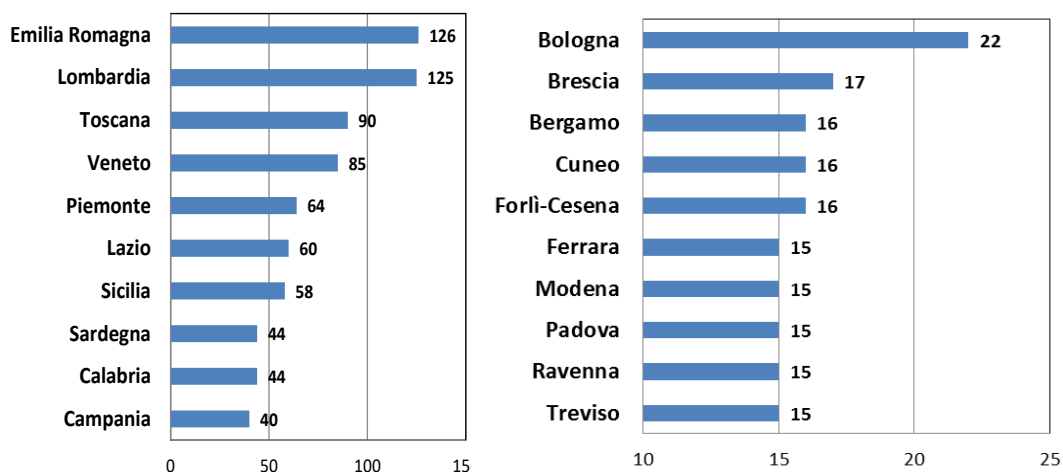


Figure 3: Top 10 regions and provinces in Italy for quality labels in food products

Source: Ismea - Qualivita, 2014

The variables were associated with the dimensions that define the theoretical framework: agricultural specialization, quality of environment, quality of food and wine production, structure of tourism sector, quality of landscape and “naturalness”. Starting from this dataset of 15 variables were selected through the study of their structure, using descriptive statistics and graphical representations, to verify, by examining asymmetry and kurtosis, the normality of the distributions and the homogeneity of their variation range. Where deemed appropriate, some steps were taken to a transformation of the elementary variable and subsequent standardization. Two different multivariate approaches are used to explain the relationships among dimensions that describe well being in local agro-food systems, according to its representation as region or provincial level. The statistical technique chosen for the representation of relations between well being and sustainable competitiveness of Italian regions is bivariate correlation and the one chosen for Italian provinces is ordinary least squares (OLS) to estimate the unknown parameters in a linear regression model.

4. Results

At regional level a correlation coefficients of Pearson is calculated between life satisfaction and each driver variables associated to sustainable competitiveness dimension. The analysis shows some interesting evidences and Figure 3 highlights these results. Statistical analyses show positive correlations between quality of life (or life satisfaction) and Gdp per capita (correlation coefficient equal to 0,7) and quality of environment at regional scale (0,6). Some regions of North East of Italy such as Valle d’Aosta and Trentino Alto Adige show a good performance, because they reach a balanced result in the sphere of well being: a high level in GDP per capita but also in the dimensions that go beyond the economic sphere such as life satisfaction and environmental quality. Some regions of the South of Italy don’t show a good performance: for example Campania has a very low level of GDP per capita and life satisfaction, Calabria has a negative score in the environmental index and it doesn’t even reach the average level of life satisfaction.

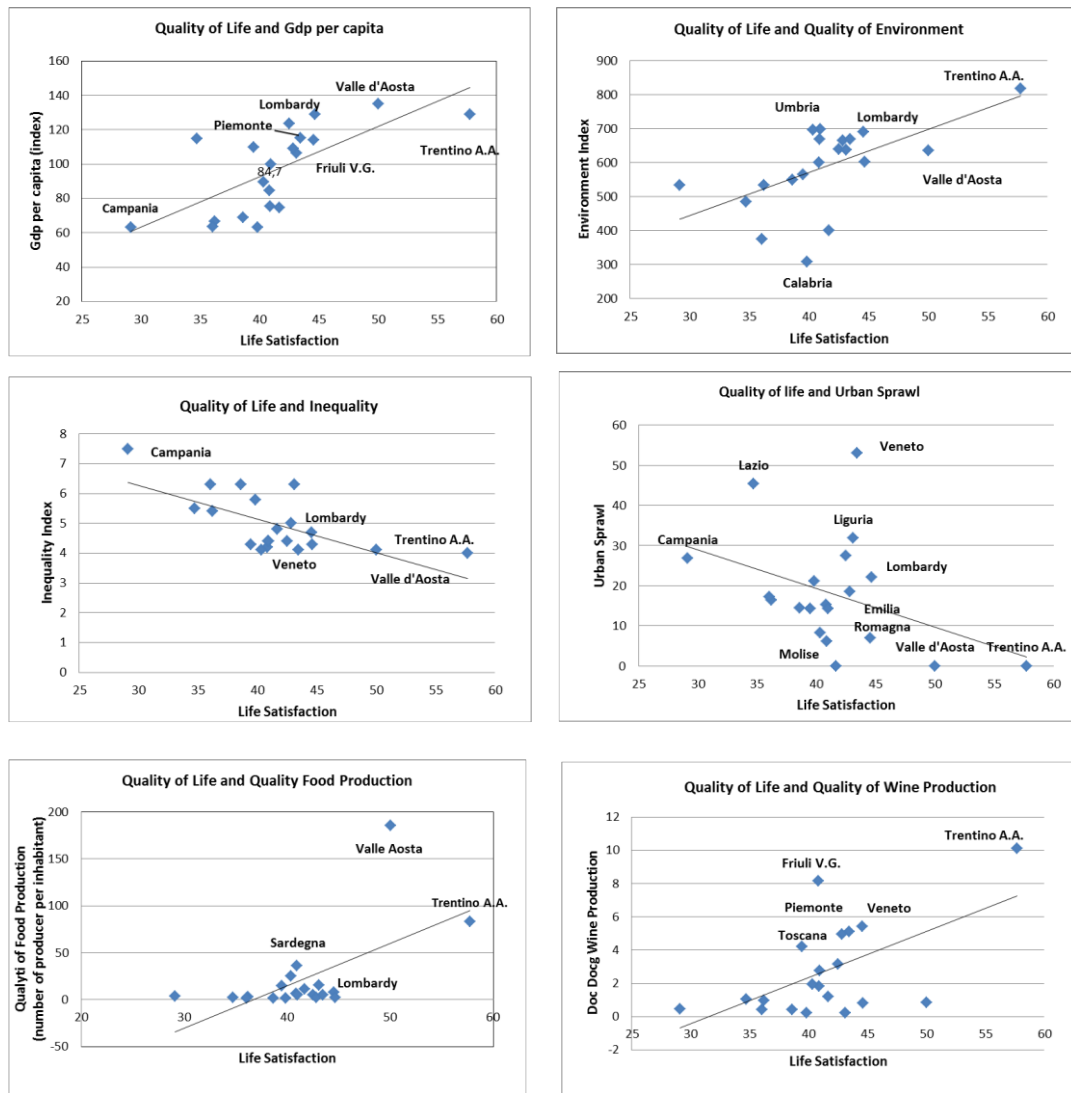


Figure 3: The relations between well being and sustainable competitiveness in Italian regions

There is a negative relation between quality of life and inequality index of income distribution at regional scale (correlation coefficient equal to -0,7), with an equal distribution of income in Trentino Alto Adige and Valle d’Aosta and an unequal one in Campania. Sometimes the growth of economic wealth has a high social cost that is reflected in a high inequality in income distribution and it penalizes life satisfaction. We can also notice a weak inverse relation with urban sprawl, which highlights the effects of another social and environmental cost of industrialization and urbanization on regional well being. The analysis of correlation between life satisfaction and food and wine production produces a first positive result but suggests a further in-depth analysis.

At provincial scale we run a regression in order to analyse the effects on a quality of life index (2008-2014 Sole24ore) of some explanatory variables (Table 1). We use GDP per capita which represent the economic dimension of development and the Ecosistema Urbano 2014 composite indicator which represent the environmental state of territory. Quality of food production is represented by Controlled Denomination of Origin (Doc and Docg) and Protected Geographical Indication

(Pgi) in the wine sector, and Designation of origin (Pdo) or Protected Geographical Indication (Pgi) in the sector of cheese and food (Allaire et al., 2011). We use tourism flow per inhabitant to represent territorial attractiveness and the density of agrotouristic enterprises to represent this specific sector of local touristic offer.

	OLS 1	OLS 2
Independent variable	Stand. Coeff. (t, Sig.)	Stand. Coeff. (t, Sig.)
Doc Docg production	0,317 (3,06; 0,003)	0,301 (3,02; 0,003)
Pdo/Pgi firms per inahb	0,168 (2,03; 0,045)	0,174 (2,24; 0,027)
Tourism flow per inahb	0,287 (3,04; 0,003)	0,301 (3,33; 0,001)
Enogastronomy index	0,134 (1,26; 0,211)	0,194 (1,85; 0,067)
Agroturistic enterprises pc	0,018 (0,185; 0,854)	-0,055 (-0,56; 0,575)
Pdo/Pgi per million inhab		0,257 (3,11; .002)
Adjusted R2	0,35	0,41
Durbin Watson	1,6	1,9

Table 1: Provincial well being: output and drivers
(Dependent variable: quality of life composite indicator)

Wine production is not linked to quality of life but we notice a good relation between this composite indicator and quality wine production (stand. coefficient equal to 0,301 in the OLS 2). Other explanatory variables that highlight a positive impact on quality of life are tourism flow per inhabitant (stand. coefficient 0,301) and Pdo/Pgi per million inhabitant (stand. coefficient 0,257). At the provincial scale the analysis shows the performance of Bolzano, Trento and Gorizia in the Easter North of Italy, with good results in quality of life and touristic and gastronomic sectors. The local attractiveness and the orientation of gastronomic production towards quality and diversification has an high impact on the composite indicator which summarizes several dimensions of economic and social well being. Quality of life of Arezzo and Firenze in Tuscany seems to be explained by the cultural and gastronomic specialization of the touristic offer of these territories. The Adriatic areas Macerata and Ancona complete the map of the best provinces.

5. Conclusions

This work offers some insights on the relations among the dimensions of local development with a focus on some specific territorial assets such as quality of landscape and environment and rural development. The aim is to contribute to the knowledge of the importance of sustainable and innovative use of the resources (Graziano, 2013), with particular emphasis on food as expression of the historical heritage of the rural communities and as product for shaping the agricultural

landscape. (Sonnino and Griggs-Trevarthen, 2013). The improvement of these territorial assets represents a goal for territorial planning and the heart of a modern sustainable tourism in search of authenticity and life quality, food and territory. A conceptual framework is adopted to define the relations between well being and these assets in local agro-food systems and it is applied to the case of Italian regions and provinces. In this model the output variable is represented by life satisfaction in the regional case and life quality in the provincial one. Agricultural specialization, quality of environment, quality of food and wine production, structure of tourism sector, quality of landscape and “naturalness” are associated to sustainable competitiveness as driver of life quality.

The analysis shows some interesting evidences such as the negative relation between life quality and inequality index of income distribution and inverse relation with urban sprawl, as social and environmental cost of urbanization and economic development. Valle d’Aosta and Trentino Alto Adige show a good performance, because they reach a balanced result in the sphere of well being.

At provincial scale wine production is not linked to quality of life but we notice a good relation between this composite indicator and quality wine production. Other explanatory variables that highlight a positive impact on quality of life are tourism flow per inhabitant and quality label of products per million inhabitant. Bolzano, Trento and Gorizia in the Easter North of Italy, Macerata and Ancona in the Adriatic area, Firenze and Arezzo in Tuscany highlights a strong specialization in the sector of gastronomic tourism as well as quality wine and food production.

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ORGANIC FOOD IN CHINA: THE LAW BEHIND *LÜSE SHIPIN* AND *YOUJI SHIPIN*

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Abstract

Currently in China the food safety issue and the environmental issue are arising, pushing customers towards more reliable products.

In this field two voluntary standards have achieved resounding success in the PRC, from one side Organic Food, (有机食品, *youji shipin*), which is the Chinese equivalent of the international standards in the field, and from the other side “Green” Food, (绿色食品, *lüse shipin*), a Chinese unicum that could be considered a middle ground between Organic Food and Non-Organic Food.

Given the emerging awareness in the Chinese consumer habits, green farming is having great success, but the legislation behind this phenomenon seems lacking, especially when it comes to its practical implementation.

The study examines the normative concerning Organic Food and “Green” Food, with relevant examples of its enforcement and with a perspective toward the future of this growing market.

1. Introduction

For over four thousand years, China has been a country of farmers.

The importance of the rural component of the Chinese was stressed during the Communist revolution, with Mao Zedong that realized the central role of peasants when he returned to Shaoshan in 1924 and then ran the Peasant Movement Training Institute in 1926.⁶

The attention to rural China later proved to be one of the keys of the success of the Communist Revolution. In fact, when in 1927 the Nationalists forced back the Communist from their urban settlements, the latter were able to strike back from what have become their rural stronghold and then made the countryside the epicentre of their rural-based military strategy, founded on guerrilla tactics and on the uprising of local farmers.

Despite the importance of rural China during the Communist revolution, after the Communist Party took over the country little attention was dedicated to Chinese agriculture, since the government focused instead on the industrialization of the Country.

We have to wait until 1978 to see agriculture regain its place as a top priority for the Chinese government, with the so called “Four modernizations”, a list of goals enacted by Deng Xiaoping which were set to strengthen the fields of agriculture, industry, national defense, and science and technology in China.

The main innovation delivered by this policy in the agricultural sector was the introduction of the “Family Production Responsibility System”, that dismantled the communes and give agricultural production responsibility back to individuals.

After that, the most significant step for Chinese agriculture was exactly the introduction of Organic Agriculture, that took place around 1990.

⁶ This was one of the first deviation of the Chinese Communist Party from the Marxist doctrine, that see the peasants as the representatives of “barbarism within civilization”.

As for other Chinese institutions we can talk, for the period that goes from 1989 to 2005, of an Organic Agriculture “*with Chinese characteristics*”.

When the environmental issue and the food safety (食品安全, *shipin anquan*) one arose in the 1990s in China, the government also reacted by introducing the so called “Green Food Program”. This was a certified voluntary quality system aimed at producers interested in reducing the use of chemicals in agriculture. The certification was granted if the producers respected a set of standards specified by the Chinese Ministry of Agriculture and had little in common with the Organic Agriculture as intended by the IFOAM⁷ standards.

In 2005, in seek of more opportunities to export Chinese organic food abroad, the government started to enact policies also in the (*strictu senso*) Organic Food field, with the first national standard dealing with organics, the “Chinese National Standard for Organic Produce”

Also in this case, the trigger that led the Chinese government to regulate this issue was the concern of the population and of the international trading partners of China, worried about the “public opinion incidents (公共舆论事件, *gonggong yulun shijian*)” concerning food safety that occurred in China during these years and reduced the trust of domestic and international customers in Chinese food production.

Later on, Organic Food (有机食品, *youji shipin*) and “Green” Food (绿色食品, *lüse shipin*) standards were subject to various reforms and successfully lived side by side in the field of sustainable agriculture in China to the present day.

This led China to become the second⁸ largest country in the world in terms of organic land surface in 2013.⁹

Today the challenges for the future of these certifications are linked to the complexity of monitoring and of the enforcement of the tightened standards entered into force recently.

1.1 *Legal Formants and language in China*

Before examining the legal rules about sustainable agriculture in China, it is mandatory a brief foreword about the structure of the Chinese legal system and its unique language.

When dealing with Chinese law and politics, in fact, we should always bear into account that, despite the recent westernization of the Chinese law, we are still facing a country where the political formant is often more enforceable than the legal one.

This is especially important if we face laws that are not only addressed to Chinese people, but that are also a showcase for trading partners of China, as in the case of the Organic Food standards.

In China it is often seen that a law is enforced in a different way than it is written, and that a rule is enforced and/or respected even if it is not included in the law (a clear example of this phenomenon is found in the so-called *Yanda Campaign*¹⁰, that

⁷ IFOAM (International Federation of Organic Agriculture Movements) the international organization for the organic agriculture, was founded in 1972 and is based in Bonn (DE).

⁸ After Australia.

⁹ According to the 2013 IFOAM report on Organic Agriculture in Asia.

¹⁰ *Yanda* (严打 lit. “strike hard”) campaigns are anti-crime campaigns usually targeting violent crimes with extraordinary measures for a small amount of time.

often take place after a mere political statement is issued, even if it is followed only after weeks or months by an official administrative or legal act).

Although nowadays the political formant in China very often acts through the law (and through the other two traditional formants¹¹ indicated by Sacco in his: “Legal Formants: A Dynamic Approach to Comparative Law (1991)”), the political level still has a specific and autonomous weight in the Chinese legal system regardless of its integration into regulations as they are understood in western countries.

We should then examine carefully what the law says about these agricultural certifications and how these work in practice.

It is also important to pinpoint that we are dealing with a country that has a mean of language rather unique, based on a non-alphabetical list of independent characters, that consist in phonograms, pictograms and ideograms.

So then we must be really careful when translating Chinese terms, since every character bear its own meaning and the combination of different characters adds another signified to the original signifiers. This is important and clear, especially in the Organic food sector, where for a long time the concept of “Organic Food” and of “Green Food” were confused with one another by foreigners.

2. Food safety in China: a brief overlook

The development of eco-standards is concurrent with the tightening of food safety standards in China, so it is important to draw a little overview of the evolution of food safety regulations in the country before examining the two eco-labels involved in this study.

The reason behind the rising of stricter food safety laws and behind the success of Green Food and Organic Food labels is, in fact, the same: the increasing concern of the Chinese people that followed alarming “public opinion incidents (公共舆论事件, *gonggong yulun shijian*)” concerning food safety.

These scandals brought to light the concept of food safety (食品安全, *shipin anquan*)

in the Chinese context and pushed Chinese consumers towards more reliable and sustainable standards.

The first law dedicated to food safety in China, the so-called “Experimental Food Hygiene Law” dates back to 1982 and has been since then amended and upgraded several times, with progressive tightening of its provisions.

Despite its amendment the “Food Hygiene Law” remains a general and poor regulation, and had great issues regarding its enforcement.

The Food Hygiene Law was then replaced in 2006, when the Standing Committee of the National People’s Congress adopted the “Law on Agricultural Product Quality and Safety”.

The law, that included in its very name the concept of food safety, provides more detailed requirements and safety criteria in food production, in order to guarantee the safety of consumers.

This law was overtaken by the Food Safety Law of the PRC in 2009, that delivered improved measures on safety management, monitoring and liability.

¹¹ According to Sacco the three traditional formants are: jurisprudence, law and doctrine.

The latest, and most stringent, amendment to the Food Safety Law took place in 2015. On April 25th, 2015, the Standing Committee of the National People's Congress passed the amended Food Safety Law, that entered into force on October 1st, 2015.

The amended law focuses also on monitoring and supervision mechanisms, which are long-standing and recurrent issues in Chinese agriculture, and are one of the reasons why the eco-labels that we are going to examine hereafter are so successful in the country.

3. Green Food in China: 绿色食品 (*lǜsè shípín*)

“Green Food” is a Chinese local certification for sustainable food, introduced by the Ministry of Agriculture of China in 1989 and available since 1990¹².

This certification was the first available in China and could be considered a “middle way” between conventional and organic agriculture.

For production of Green Food four environmental criteria need to be respected:

- (1) “Area should meet the highest grade of air standards in China;
- (2) Heavy metal residues are restricted in irrigation, water and soil (tests for mercury, cadmium, arsenic, lead, chrome, etc.);
- (3) Processing water must meet the National Drinking Water Standard;
- (4) Chemical applications are restricted and regulated, and some of the most poisonous pesticides and herbicides are banned”¹³

Since the Green Food certification was introduced, no claims were made that it was an organic label. Rather, the authorities stressed that the “Green Food” logo ensured a strict control of chemical use and guaranteed the safety of the product.

In 1992 the Ministry of Agriculture established the China Green Food Development Centre (CGFDC), entrusted with the development and management of Green Food. The Centre owns the Green Food logo¹⁴, develops, updates and maintains the Green Food standard, coordinates monitoring, and draws income from certification fees.

The rules and standards about Green Food are contained in the “Handbook of Standard Use and Design of the China Green Food Trademark and Label”, that regulates on one hand the requirement in order to use the Green Food logo, and on the other hand the limits and ways of the use of the logo on the product and in its advertisement.

The logo aspect is as follows, with the name “Green Food” both in Chinese and in English:

¹² As it was announced by Sun Panqi, director of the State Farm Department, the Green Food certification was available to coincide with the opening of the 11th Asian Games held in Beijing in September 1990.

¹³ Paull J. (2008), Green Food in China, in *Elementals - Journal of Bio-Dynamics Tasmania*, 91(2008): 48-53, who in turn quotes: Giovannucci D. (2005), Organic Agriculture and Poverty Reduction in Asia: China and India Focus, IFAD (Rome) Report n. 1664, July 2005.

¹⁴ The “Green Food” logo is in fact registered according China's Trademark Law as a Product Quality Certification Trademark, and can be used by farms and enterprises that cope with the standards set by the China Green Food Development Centre and have been authorized by the same.



Figure 1: the Green Food trademark according to the Handbook of Standard Use and Design of the China Green Food Trademark and Label.

To the original Green Food Standards (that later become known as “Standard A”¹⁵) was later placed side by side another, stricter, standard, called “Standard AA”¹⁶.

“Standard AA” for Green Food was introduced in 1995 due to the growing request of Green Food for export purposes, it was more stringent and less popular among enterprises and was usually picked only if the product was intended for foreign countries.

The “Standard AA” prohibited all synthetic pesticides and chemicals to be used in the production process, thus making it substantially equivalent to the standards of organic food.

This split of Green Food standards set the foundations for the progressive replacement of the stricter standard “AA” with organic certification and the progressive conformation of its monitoring and control practices to all major international standards for organic food.

The main focus of the monitoring activity, for both the seen standards (Green Food “A” and “AA”), was in fact the final product rather than the productive process. The CGFDC usually tested the products for chemical residues and grants the label if it complies with the limits specified in the handbook.

This way was gradually integrated for standard “AA” and then, in 2002, when China Green Food Development Centre achieved accreditation by IFOAM giving it the right to certify organic products, this stricter standard, no longer useful since it lost its surplus value, was gradually phased out, especially after the introduction of the China National Organic Product Standard in 2005.

Nevertheless, Green Food “AA” is still an available standard today and both Green Food “AA” and Green Food “A” are overseen by the China Green Food Development Centre.

So we can say that, in China, Organic Food is the natural consequence of Green Food, and live today somehow in the shadow of its “older brother”.

Despite it has been disputed whether the monitoring of the Centre is effective, “Green Food” has sure enough been very successful.

In 2003 already more than 3.000 products were certified as “Green Food” and these products enjoyed a consistent share in the retail market,¹⁷ by 2006 the products

¹⁵ Standard A is less strict and it allows the use of some synthetic agricultural chemicals.

¹⁶ Standard AA is stricter, even if also this standard allows the use of some synthetic agricultural chemicals, it allows that in smaller quantity. It is important to notice that this standard is, in some points, substantially equivalent to the Organic Food standard, and is even stricter for some aspects. It was designed to conform to all major international standards for organic food, including the IFOAM standards.

¹⁷ Scorzon A., Van der Meulen B. and Li Jiao (2014), Organics in Chinese Food Law, in *European Food and Feed Law Review*, 9(3): 179-186.

certified as “Green Food” were 12.868 and 4615 companies were as well certified with the “Green Food” logo¹⁸.

This voluntary certification “has been described as “one of the most successful eco-labelling programs in the world” (Giovannucci, 2005, p.12)”¹⁹ and is important still today, even after the introduction and implementation of the Organic Food standard in China.

The “Green Food” logo is familiar to the Chinese consumer (because it is widespread since 1990s) and so its direct competitor, the “Organic Food” logo, struggles to gain market share and is, still today, used mostly for products intended for exportation in foreign countries.

A significant example of this strife for Organic Food is the abolition of the “certified organic-in-conversion” label after the implementation of the revised “Regulatory Measures on Organic Product Certification Management” effective from April 1, 2014. One of the reasons that led the Chinese government to remove the “conversion” label was indeed the presence of the “Green Food” logo, another well-known eco-label that was going to co-exist with the “Organic” logo, thus crowding the reference market and arguably confusing the costumers.

Another evidence of the success of the *liise shipin* is the fact that some foreign countries have started to ask for this labelling for their product intended for exportation in China.

In 2007, The Canadian Wheat Board (CWB) claimed that it had achieved the green food logo for barley exported in China and declared that it “is honoured to receive this respected and sought-after designation on its malting barley exports”²⁰. After that also Australia has achieved Green Food certification for barley and whey exports to China.

3.1 Other eco-standards in China

Before taking into account the Organic certification, it is important to take a brief overlook to another local eco-certification effective in the PRC: the so called “Pollution-free Food” (无公害, *wugonghai*). This is not a voluntary certification but rather a mandatory standard for producers, with less stringent regulation on the residue limits of fertilisers, pesticides, drugs, heavy metals and other chemicals.

It is intended to gradually become the basic standard for agricultural production in China and was introduced first in 2002 as a voluntary standard. It became mandatory in 2006 after many food safety related incidents had compromised the trust of Chinese consumers in Chinese food, and entail and trade restrictions had been imposed by other countries.

By the end of 2007, 24% of China arable land used for crop and plant production has been certified as *wugonghai*.²¹

¹⁸ Sternfeld E. (2009), Organic Food “Made in China”, in *Hintergrund informationen*, 10(2009): 1-11.

¹⁹ Paull J. (2008), Green Food in China, in *Elementals - Journal of Bio-Dynamics Tasmania*, 91(2008): 48-53.

²⁰ *Ibidem*.

²¹ Sternfeld E. (2009), Organic Food “Made in China”, in *Hintergrund informationen*, 10(2009): 1-11.

4. Organic Food in China: 有机食品 (*youji shipin*)

Despite Organic agriculture in China started at once with the “Green” Food introduction in the 1990s (the tea from Lin’an county of Zhejiang Province was the first certified organic product to be exported from China) we had to wait many years before Chinese government enacted regulations on the subject.

The implementation of the Administrative Measures for Organic Product Certification dates back only to 2005 (Order No. 67 by China State Administration of Quality Supervision, Inspection and Quarantine) and its corresponding national standard for Organic Products was enacted the same year (GB/T 19630.1-19630.4-2005).

It was from 2005 then that organic food had to be sold in the Chinese mainland market under a unique, government authorized, Chinese organic certification label.

After some years, in 2012, was set a new standard (GB/T19630-2011), which implementing rules became effective on the 1st of March 2012.

This renewed standard brought some major changes in the Organic Food certification and monitoring, such as a zero-tolerance policy towards certain residues, the introduction of a numeric code on the label to safeguard its traceability and the introduction of stricter standards to lower the cropping pressure, especially on rice.

After that was also enacted an operative ruling about the “Regulatory Measures on Organic Product Certification Management”, effective from April 1, 2014, that abolished the “Conversion to Organic” label due to its misuse by some producers that could confuse the public, given also the already crowded scenario of eco-labelling in the country.

Since the 1st of April 2014, then, there is only one organic label for all of China and for all categories of products, which is the one shown here by:



Figure 2: the Organic certification seal according to Article 32 of the Regulatory Measures on Organic Product Certification Management effective from April 1, 2014.

Organic Food introduction in China was not only intended for export purposes, but it was also meant to be the response to the basic issue about its competitor Green Food: the frequent coincidence of the controller and the controlled.

In fact, the China Green Food Development Centre (appointed of the supervision of the Green Food certification) is established and controlled by the Ministry of Agriculture and, many of the “green” food certified businesses, are state owned.

This overlap jeopardizes the appeal of the Green Food label even for Chinese consumers.

It has been shown that consumers have greater trust in independent third-party certification bodies and, Organic Food, with an international and independent certificatory, was arguably adequate to gain the trust of the Chinese consumer.

An Organic label could indeed be an effective means for manufacturers to provide information about food quality to its consumers.

For this reason, in 1994 the State Environmental Protection Administration (SEPA) set the Organic Food Development Centre (OFDC), within the Nanjing Institute of Environmental Science.

After several years the Organic Food Development Centre (mostly thanks to the help of the German development agency GTZ that worked side by side with the Chinese Centre from 1997 to 2003) qualified in 2002 to become the first Chinese organic certifier accredited by the International Federation of Organic Agricultural Movements (IFOAM).

After that the Chinese government ruled the certification in 2005 with the seen Administrative Measures.

Although its enhanced reliability, the Organic Food certification had a hard time against the Green Food certification due to its higher price-tag.

Until now Organic businesses have indeed struggled to gather a significant market share, and the certification attracts three main forms of businesses:

- State owned: where the “organic production represents only a very small part of their overall business, but gives them a higher profile market presence”²²;

- Private Chinese: that “usually have a mixed production, conventional and organic. Their major markets cover domestic and export depending on the product”²³, were the organic product is usually intended for exportation.

- Private international: that are “set up by foreign investors targeting precise demands from internal and external markets.”²⁴

The main focus for Organic producers are, therefore, exportation and the niche constituted by the consumptions of the emerging upper class in the Chinese peak metropolis, like Beijing and Shanghai.

Another problem of the Organic certification (this time we are talking about an issue that also the Green Food certification shares) is the intricacy of the monitoring.

Under the current organic regulations and standards, food products cannot be called organic unless they are certified by a Chinese certification body.

The authority responsible for organization, implementation, supervision, and comprehensive coordination of domestic organic product certification activities is the Certification and Accreditation Administration of the People’s Republic of China (CNCA).

Although, the monitoring is split into three different levels.

At the top level, we have the CNCA, at the midrange level, we have the quality and technical supervision departments of local governments and the entry-exit inspection and quarantine agencies, which are responsible for supervision, administration and law enforcement investigation for organic product certification activities within their jurisdiction, and at the bottom level we have the individual

²² Scorzon A., Van der Meulen B. and Li Jiao (2014), Organics in Chinese Food Law, in *European Food and Feed Law Review*, 9(3): 179-186.

²³ *Ibidem*.

²⁴ *Ibidem*.

certification bodies, that carry out the inspections and keep the records to ensure traceability.

This partition of the monitoring activities gives rise to severe issues about the coordination of the authorities and the effectiveness of the control chain.

Despite these problems, Organic agriculture in China is a market in a continuous expansion and there is an increasing share of Chinese consumers that is willing to pay more for food labelled as Organic, valuing its international validation and credit.

This standard, if followed by an effective and transparent enforcement, could arguably be able to build trust in Chinese consumers.

5. The present coexistence of Green Food and Organic Food and their future perspectives

In 2007 China had a total of 122 million agricultural hectares, of these 10 million hectares (8.2%) were certified Green Food, and 3 million hectares (2.5%) were certified Organic.²⁵

The importance of the sustainable agriculture in China is therefore clear. We are dealing with a comprehensive agricultural production system intended to a coordinated development of environment and economy, rooted in the success of various practices of sustainable agricultural productions and on Chinese traditional organic agriculture (that was based on “rational crop rotations, interplanting, fine and intensive cultivation and cultivating the land with organic fertilizers”²⁶).

- It is also important to note that the Chinese organic field is strongly organized and directed by the government, so “the pattern of China’s modern eco-agriculture is a “big agriculture” with a rational distribution of planting, feeding and processing overall planned.”²⁷

These policies are acknowledged by Chinese consumers, since the majority of them are willing to pay more money for organic food than for conventional food, researches have shown that: “The average willingness to pay (WTP) for organic food is 135.3% greater than that for conventional food, which is close to the research result obtained in European countries”.²⁸

Other studies have found that the reasons for the choice of Organic Food in China are as follows:

- “Health is the main motive for choosing organic products and the main loss associated to products that are locally and conventionally produced.
- Conversely, price is the main barrier for choosing organic products and the main benefit associated to products that are locally and conventionally produced.

²⁵ Paull J. (2008), Green Food in China, in *Elementals - Journal of Bio-Dynamics Tasmania*, 91(2008): 48-53.

²⁶ V.A. (1996), China’s Greenfood Development and Environmental Protection, Research Report prepared for the China Council for International Cooperation on Environment and Development Working Group on Trade and Environment <http://www.iisd.org/pdf/greenfood.pdf>.

²⁷ *Ibidem*.

²⁸ Shijiu Yin, LinhaiWu, Lili Du and Mo Chen (2010), Consumers’ purchase intention of organic food in China, in *Journal of the Science of Food and Agriculture*, 90(2010): 1361–1367.

- Environmental concerns are emerging altruistic motives, even if Food miles are not spontaneously evoked by consumers
- Other altruistic concerns such as support for local organic producers are quite absent.
- The question of trust is a major question related to organic food.”²⁹
- Opportunities in the field are therefore linked to three main elements:
 - (1) the economic growth, since the improvement of people’s living standards in China expands the market for Organic and Green Food;
 - (2) the increasing awareness of the Chinese consumer about environmental problems and health concerns;
 - (3) the improvement of the level of trust among consumers towards organic and green businesses.
- (1) Especially with regard to the third seen point, the further development and enforcement of the regulations about eco-labels in China is fundamental.
- Although these green standards face many complex challenges, the most problematic one is in fact directly linked with issues in monitoring the quality of eco-labelling.

These quality products can spread out and justify their being costly only if they are reliable. This trustworthiness is seriously compromised by food safety scandals that involve organic food.

In July 2008, the Whole Foods supermarket chain (a retail company in the U.S. specialised in organic food) that had been selling powdered ginger produced in China, which was labelled as organic food, but when tested was found to contain the banned pesticide Aldicarb.³⁰

The ginger had been mistakenly certified organic by the U.S. certification body because it relied on the Chinese certifiers.

This incident raised questions about the reliability of Chinese organic products because, under Chinese law, foreigners may not inspect Chinese farms.

According to USDA out of 23 cases of fraudulent organic certificates found in the U.S. between February of 2011 and June of 2013, nine involved Chinese companies.³¹

These problems could seriously threaten the development of Chinese eco-agriculture, it is therefore pivotal that the government will begin to enforce severe, comprehensive and coordinated set of controls about organic certifications.

The specific problems about eco-label adds up to the issues of China’s food regulatory regime that still remains fragmented.

Since various government authorities participates in the supervision and monitoring of food safety, the target of an efficient coordination is still far.

Another problem is related to the high cost of monitoring.

²⁹ Sirieix L., Kledal P. R. and Tursinbek Sulitang (2011), Organic food consumers’ trade-offs between local or imported, conventional or organic products: a qualitative study in Shanghai, in *International Journal of Consumer Studies*, 35(2011): 670–678.

³⁰ Source: <http://www.theepochtimes.com/n3/1612468-5-reasons-you-shouldnt-trust-organic-from-china/> last accessed in April 2016.

³¹ *Ibidem*.

In China, thorough monitoring of food product safety and quality is particularly costly because of the large number of small production points involved which are also more likely to practice sub-standard operation.

It has been marked that: “Small-scale family workshops employing fewer than ten employees were said to represent 70-77% of market share in China, not to mention the co-existence of many unregistered informal producers.”³².

Given these problems the preferential treatment for the “Green” Food label in China seem short-sighted.

It is understandable that the Chinese government, that has orchestrated from the beginning the Green Food program, is interested in subsidise this eco-label rather than the international Organic one, but this practice over the long term could cause major problems.

From one side investigations based on random samplings of the final product are ineffective, and could lead to serious food safety incidents, from the other side high production costs and a limited domestic market make it difficult to survive for organic producers, especially given the fact that there are no or only limited governmental subsidies.

A small survey conducted by Matthias Meyer in June 2007 in Haidian District, Beijing Municipality showed: “that the majority of consumers had only a vague idea or none at all of the concept of organic food. When asked if labels such as “Organic Food”, “Green Food”, “Ecological Food”, “Pollution Free Food” or “Natural Food” sounded appealing or unappealing to them, the majority of respondents rated “Natural food” (which is not a registered label) as most appealing (60%), followed by “Green food” (48%) and “Organic food” (43%). A surprising 17% rated “Organic food” as the most unappealing label of all.”³³

This research clearly shows the biggest challenge that organic businesses are facing, that is the need to improve their domestic consumer market.

So far, the domestic consumer market remains, in fact, poorly informed about organic produce and is sceptical of its certification.³⁴

If the government were to decide to invest in Organic Food, the situation would be profitable also for the “Green” Food labelled businesses, because the Organic certification could be a consequent follow-up to the “Green” Food one.

Most of the companies certified as ‘Green Food’ production had indeed a suitable foundation to develop organic production.

A progressive focus toward Organic Food could lead to increasing market opportunities and export opportunities, with the synergistic effect of a cleaner environment.

This development surely goes through a more efficient, coordinated and transparent set of controls, where foreign certification bodies are allowed to inspect Chinese organic farms.

³² The data refers to the year 2008. Source: Chung Shan-shan and Wong Chris K.C. (2012), Regulatory and Policy Control on Food Safety in China, in *Journal of Epidemiology and Community Health*, DEC 12: 2-8.

³³ Sternfeld E. (2009), Organic Food “Made in China”, in *Hintergrund informationen*, 10(2009): 1-11.

³⁴ Source: <http://www.chinafile.com/media/china-organic-food-gaining-ground> last accessed on October 2016.

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