



Food behaviours as reflections of globalisation: trends to 2030

The *MOND'Alim 2030* exercise led by the Centre for Studies and Strategic Foresight is aimed at characterising the current phase in globalisation and documenting the main dynamics at work. One of its chapters is devoted to food behaviours. This paper draws out the characteristics and trends in their globalisation, whether they have been in place for many years or are just emerging: convergence in the broad balances of the food ration, the spread and reinterpretation of food products and dishes, the increasingly individualised and secondary nature of food intake, etc.

Initially, the association of the terms “food” and “globalisation” often evokes the idea of extensive circulation of commodities from around the world, completely ignoring seasonality, or the fear of the standardisation, the “Americanisation” even, of the food on our plates. In order to go beyond these received ideas, the analysis conducted as part of the *MOND'Alim 2030*¹ foresight study set out to take into account the diversity of the food issue while at the same time taking care to avoid an excessively Europe-centred approach. To achieve this, the main dynamics (interactions, convergences, divergences, dissemination, hybridisation, etc.) were identified.

The aim was not to describe food around the world but to decipher the processes leading to the globalisation of food. Similarly, the issue of food security was not central, given that this has been satisfactorily documented elsewhere. For both individuals and societies, food is a reality with dimensions that go beyond simple nutritional issues and the need for regular food intake: food is multifunctional and multidimensional (biological processes, hedonistic values, social needs, and so on). This foresight analysis therefore looked at *food-related behaviours* above all, i.e. consumption (products, quantities, etc.),

practices (modes of supply, preparation, etc.) and representations (knowledge, values, associated images).

There are various drivers behind the globalisation of food behaviours, among them the generalised spread of salaried employment, increasing recourse to markets for supply (in both urban and rural contexts²), the feminisation of society, the ageing of populations and the expansion of the middle classes in the stratification of society. Worldwide, the urban middle classes have specific common characteristics (status, profession, values of reference, social mobility, life paths) and in emerging countries they aspire to levels of consumption and standards of living similar to those of the Western middle classes³. Their representation in the total population is increasing and likely to amount to two-thirds by 2030 (or 4.9 billion people, 70% in Asia), compared with approximately a quarter in 2009⁴ (cf. Figure 1). These urban middle classes are a vector for significant societal change and they are considered here to be revelatory of the globalisation of food behaviours. Two other core assumptions were also made: changes in these behaviour patterns go hand in hand with those in lifestyle and reflect deeper social changes; the place of food is evolving in the daily lives

of individuals (previously dominant, it is increasingly subordinated to other activities and aspirations).

The present paper looks at the principal trends in the globalisation of food behaviours over the period to 2030. Convergence in the broad balances in the food ration along with the spread and reinterpretation of food products and dishes are discussed, for example, as well as the increasingly secondary and individualised nature of food intake, and finally the worldwide emergence of goals and issues common to eaters. Readers with an interest in this may refer to chapter 1 of the *MOND'Alim 2030* report for further discussion of these aspects, among others.

1. Centre for Studies and Strategic Foresight, 2017, *MOND'Alim 2030. Panorama prospectif de la mondialisation des systèmes alimentaires*, La Documentation française, 230 pages: <http://www.ladocumentationfrancaise.fr/catalogue/9782110103314/index.shtml>.

2. Bricas N., Tchamda C., Mouton F. (eds), 2016, *La consommation alimentaire en Afrique de l'Ouest, au Cameroun et au Tchad. Enseignements de 10 années d'enquêtes auprès des ménages*, AFD.

3. Damon J., 2014, “Le marché des classes moyennes dans les pays émergents : quelle réalité ? Quelles opportunités ?”, *Collection « International »* no. 25, CCI Paris Île-de-France.

4. Kharas H., 2010, *The emerging middle class in developing countries*, OECD development centre, Working Paper No. 285.

1 – Convergence in the broad balances in the food ration

From 1960 to 2016, average availability of food worldwide rose from around 2,190 kcal per head per day to 2,870 kcal, an increase expected to continue over the coming years⁵ (cf. Figure 2). National nutritional transitions are driving convergence in the broad balances of the ration: the quantities consumed are increasing along with the rise in standard of living and ration structure is evolving (sharp expansion in the percentage of lipids, reduction in carbohydrates, partial replacement of plant proteins by animal proteins – cf. Figure 3). These transitions, which are far advanced in the most developed countries, are occurring with varying speeds and phasing. For example, the French nutritional transition came about in two separate stages during the 19th and 20th centuries, while that of China, despite a similar scale, was characterised by two overlapping stages in the space of less than fifty years⁶. Alongside this convergence, diversity continues to exist between major regions, between countries, including those at the same level of economic development, and even within the same country. Local contexts (cultural, political) play an important role, such as for example in Japan (high levels of consumption of fish and sea products) or India (importance of vegetarianism).

Animal products are particularly revelatory of these developments (cf. Figure 4): from 1961 to 2011, global consumption of meat products (poultry, pork and beef in the main) rose from around 23kg carcass weight per head per year to 42kg, consumption of fish and sea products from around 9kg live weight per head per year to 21kg, and milk from around 75kg to 91kg. Emerging countries have supported these changes while consumption of meat products has levelled out or even declined

5. By 2030, this availability would stand at approximately 2,960 kcal per head per day according to research published in 2012 (Alexandratos N., Bruinsma J., 2012, *World agriculture towards 2030/2050: the 2012 revision*, ESA Working Paper No. 12-03, FAO).

6. Combris P., 2015, "Les transitions nutritionnelles et leurs déterminants", in Esnouf C., Fioramenti J., Laurioux B. (eds.), *L'alimentation à découvert*, CNRS Éditions.

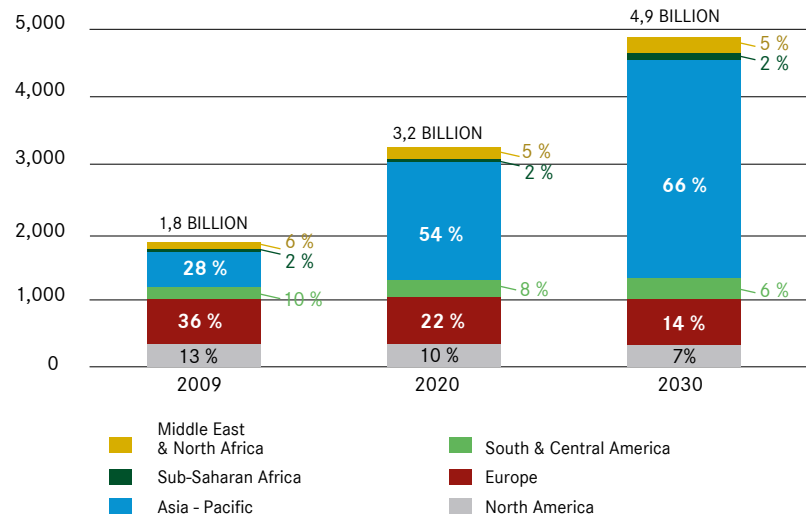
7. FAO, 2011, *Mapping supply and demand for animal-source foods to 2030*, Animal Production and Health Working Paper No. 2.

8. World Bank, 2013, *Fish to 2030, Prospects for Fisheries and Aquaculture*, World Bank Report Number 83177-GLB, Agriculture and environmental services discussion paper 03.

in the most developed countries. By 2030, growth in consumption of these products is likely to be generalised, with continued increases in demand for poultry meat (+170%) in all regions, and a reduction in that for beef and milk everywhere except Eastern Asia

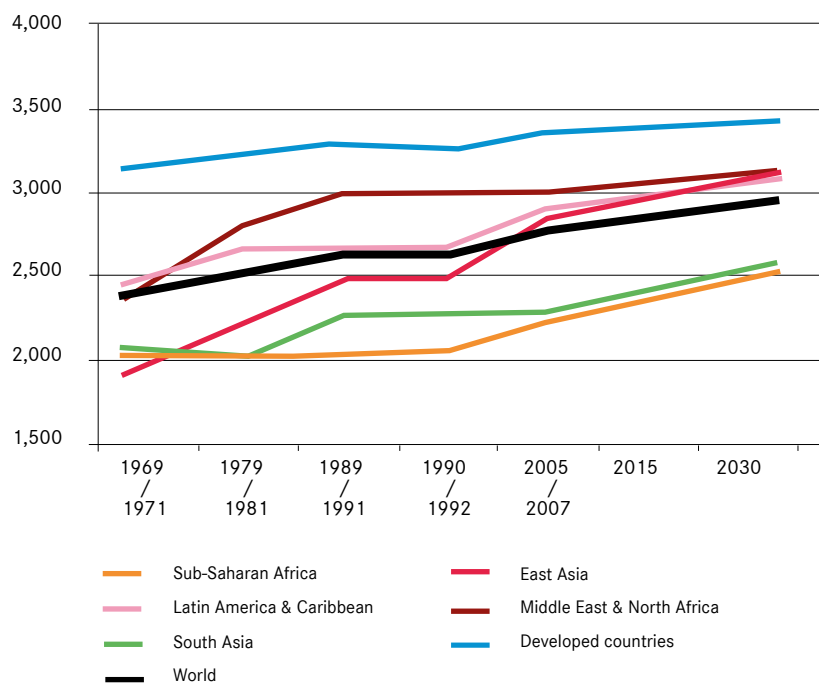
and the Pacific. Southeast Asia, China (pork, poultry, milk) and India (poultry meat, eggs, dairy products) will be major drivers⁷. As for sea products (cf. Figure 5), consumption is likely to stand at 152 million tonnes in 2030⁸. However, in coming years a number

Figure 1 – The middle classes: number of individuals by major world region in 2009, 2020 and 2030



Source: Kharas H., 2010, *The emerging middle class in developing countries*, OECD development centre, Working Paper No. 285

Figure 2 – Average food consumption (kcal/head/day) from 1969-71 to 2030



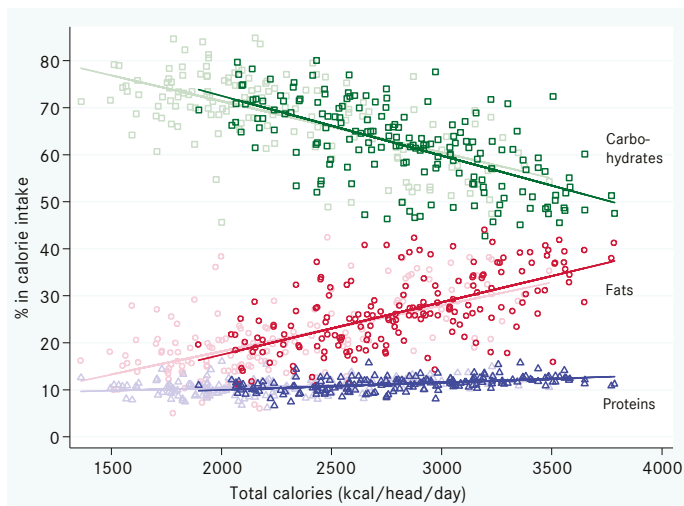
Source: Alexandratos N., Bruinsma J., 2012, *World agriculture towards 2030/2050: the 2012 revision*, ESA Working paper No. 12-03, Rome, FAO

of challenges will be increasingly pressing (shop prices for consumers, environmental, nutritional and health issues, sanitary problems, ethical issues, etc.), especially for meat products, along with the question of the place of alternative sources of protein in diets.

Ongoing changes in nutritional issues go hand in hand with the trends described above. In recent years, the proportion of the world's population living in situations of quantitative food insecurity has shrunk, especially in Latin America, Eastern Asia and Southeast

Asia: this affected 785 million people in 2015, i.e. 21% fewer than in the period 1990-1992⁹. But the population this affects in Central and West Africa is expanding. Global nutritional issues will persist over the period to 2030, evolving around two core focuses: nutritional deficiencies on the one hand and diseases linked to the global increase in the numbers of overweight on the other¹⁰. Faster nutritional transitions notably lead to the coexistence of malnutrition, excessive weight and obesity, with many countries facing this “double burden” phenomenon. New food-related challenges therefore arise, and these will become part of the international agenda as major global causes in the coming years.

Figure 3 – Composition of energy intake: World, 1961-63 and 2009-11

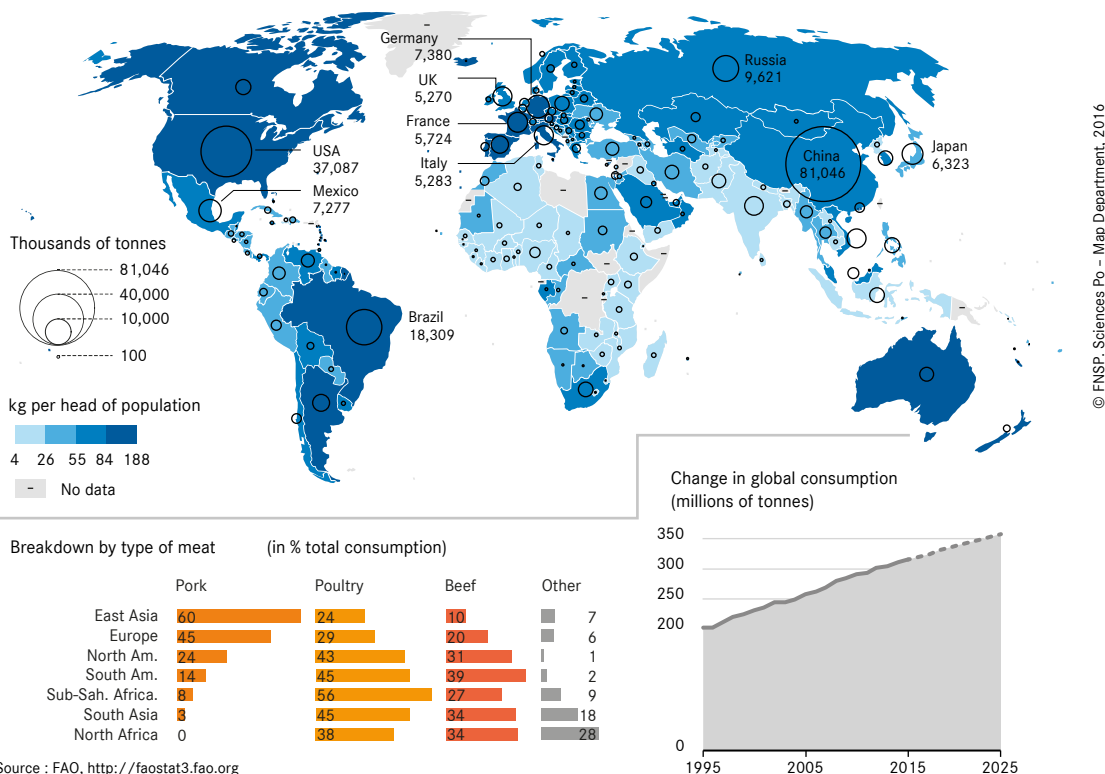


For any given date, the composition of energy intake in each country is represented by three data points (percentages in calorie intake of carbohydrates, fats and proteins). Transparent data points relate to the period 1961-63.
Source: Combris P., after FAOSTAT

9. IFPRI, 2015, *Global Nutrition Report 2015. Actions and accountability to advance nutrition & sustainable development*; FAO, 2015, *The State of Food Insecurity in the World 2015*.

10. Extrapolating current trends, half of the world's population would be overweight or obese by 2030: Kelly T., Yang W., Chen C.S., Reynolds K., He J., 2008, “Global burden of obesity in 2005 and projections to 2030”, *International Journal of Obesity* (2008) 32, pp. 1431-1437.

Figure 4 – Meat consumption, 2011



Source : FAO, <http://faostat3.fao.org>

2 – The spread and reinterpretation of food products, recipes and dishes

The spread of food products is an ancient phenomenon accompanying contacts and trade (cf. Box 1). Food system industrialisation is notably founded on the rapid rise of agrifood firms, retail distribution and out-of-home

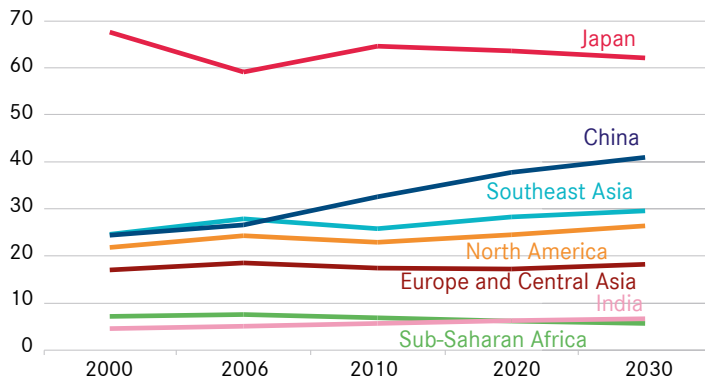
catering. Over the last several decades it has resulted in the large-scale commercialisation of processed products. These are a particular response to the expectations of the urban consumer (e.g. sanitary quality, conservation, practicality, availability, etc.) and their manufacture is based on increased standardisation of raw materials, ingredients

and intermediate food products, with the creation of diversity and complexity arriving only in the later stages of processing¹¹. While they account for 85% to 90% of household expenditure on food in the richest countries, consumption of them is also developing in other countries. This deep-seated trend towards the spread of “global” products goes hand in hand with the dissemination of tastes and savours, driven by brands with a worldwide presence. However, such products are frequently adapted to local contexts by firms, as well as reappropriated by eaters according to their culture, habits, lifestyle and associations with specific local products (e.g. condiments and sauces).

Urbanisation, longer food supply chains, market supply of products that are prepacked, more complex and more diversified are leading, for eaters, to a widening distance

11. Dessaux P. A., 2015, “Naissance et triomphe de l’industrie agro-alimentaire (XIX^e - XXI^e siècles)”, in Esnouf C., Fioramenti J., Laurieux B. (eds.), *L’alimentation à découvert*, CNRS Éditions.

Figure 5 – Changes in consumption of sea products by major region (kg live weight/head/year)



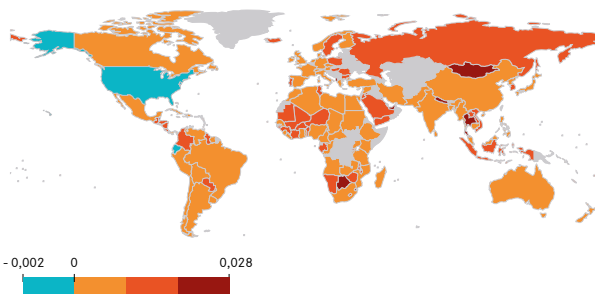
Source: World Bank, 2013, *Fish to 2030, Prospects for Fisheries and Aquaculture*, World Bank Report Number 83177-GLB, Agriculture and environmental services discussion paper 03

Box 1 – Homogenisation of products consumed at global level, diversification at local level: the example of crop species

Crop species (cf. Figures 6 and 7) provide an interesting illustration of this trend. Examination of the relative importance of the various cultivated plants in national supplies over a period of 50 years reveals, firstly, diversification in supply at the level of individual

countries and, secondly, homogeneity at global level (and therefore a global loss of diversity in the plants consumed). For example, wheat and soya have spread widely, but the share of cassava and sorghum has shrunk.

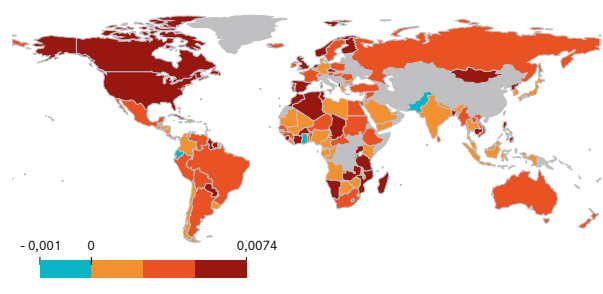
Figure 6 – Changes in diversity of food crops 1961 to 1999



The above colour gradient illustrates the evolution, at varying speeds, of the diversity of available plant production for food in each country. In blue, countries that have seen a decline in this diversity. The share of each crop has been calculated on the basis of calories.

Source: Khoury C., Bjorkman A.D., Dempewolf H., Ramirez-Villegas J., Guarino L., Jarvis A., Rieseberg L.H., Struik P.C., 2014, « Increasing homogeneity in global food supplies and the implications for food security », *PNAS*, vol. 111 n°11

Figure 7 – Speed of convergence (or differentiation) in crop composition in individual countries compared with the average composition worldwide from 1961 à 1999



The above colour gradient illustrates the convergence, at varying speeds, in the composition of plant production for individual countries, relative to average composition globally. In blue, countries that have seen a divergence in their composition. The share of each crop has been calculated on the basis of calories.

Source : Khoury C. *et al.*, *op. cit.*

between them and food products. This distancing may be physical (geographical), economic (more intermediaries), cognitive (loss of knowledge of product origins) or political (loss of control over the food system)¹². Consumers are for this reason obliged to change the ways in which they assess the quality of foodstuffs, which become increasingly indirect, based on intermediaries, etc¹³. The desired characteristics vary by location, culture, individual or indeed from one moment to the next for the same person. At the global level, there are more and more intertwined information vectors, and traceability and trust are increasingly important issues. In reaction

to this increasing distance, consumers, especially those in the urban middle classes, will seek out new ways to bring food closer: short market supply chains, urban farming, fair trade, local artisanal production and local food system governance¹⁴.

Dishes, tastes and savours are also involved in this global dissemination, most notably through migration, cultural contacts and tourism. Reinterpretation of these at local level is more marked than for industrial products and they can be transformed into “culinary concepts”¹⁵ as is illustrated by the example of the pizza, the world’s most widely eaten composite dish. Such dishes are ethnicised and reinvented in the places where they

are consumed through associated savours, ingredients, presentation, times when eaten, and so on.

All in all, over the period to 2030, the standardisation and dissemination of “global products” will always be present, accompanied by increasing local differentiation. Although the physical distance is likely to widen little if at all between eater and product, the other forms of distancing will undoubtedly be reinforced. The trend toward increased diversity in the products consumed and food dishes will continue, in a constant interplay between local and global shaped by a range of factors (economic, cultural, normative, etc. – cf. Box 2).

3 – Increasingly secondary and individualised food intake

Societies, especially in Europe, are characterised by a phenomenon of social acceleration¹⁶ relating to fundamental technological changes, evolving employment structure (tertiarisation), urbanisation and the rise of the middle classes. The demand for speed is filtering through into food behaviours. Furthermore, regular easy access to products that are safe, healthy, diversified, easy to use, etc. is downgrading food as a social priority: it remains indispensable day-to-day but is increasingly subordinated to other considerations (e.g. work, leisure) and is therefore seen as secondary.

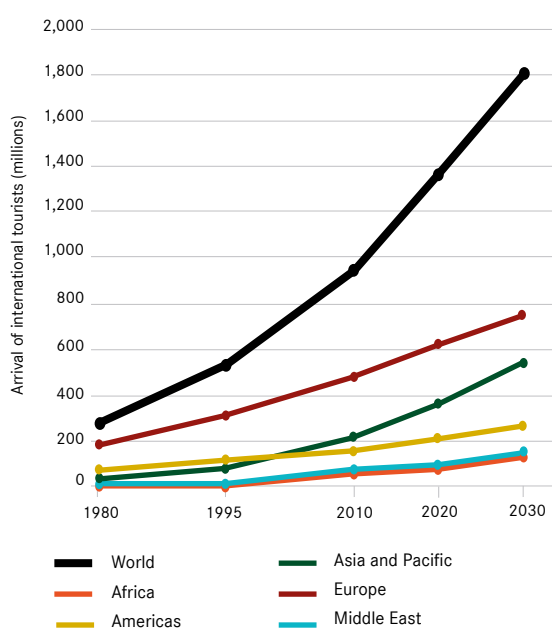
In addition, evolving lifestyles are amplifying the trend toward individualisation: individuals are increasingly claiming their independence with regard to the social and cultural rules promoted by institutions (family, profession, religion). Their choices reflect both freedom and constraints¹⁸: eaters are responsible for their food-related decisions and the consequences for themselves, for society in general and for future generations. Tomorrow,

Box 2 – Increasing patrimonialisation

A diverse range of goals and issues (cultural, economic, diplomatic, among others) cluster around food heritage and excellence. Whether the aim is to protect something that is disappearing (or which has disappeared) or to confer new attractiveness (for tourism, for example) on existing practices or forms of production, efforts directed at patrimonialisation will intensify in the years to come. Gastronomic traditions and innovations will both be increasingly in competition at global level. These dynamics may be linked to the development of tourism (forecast average annual growth of 3.3 % over the period 2010 to 2030¹⁷ – cf. Figure 8), to recourse to worldwide

protective schemes (e.g. UNESCO listing as intangible heritage) and the definition of hierarchies (e.g. restaurant rankings). More generally, national and local food models are, put simply, undergoing two concomitant trends:
 - In relatively young nation states, models are being constructed that are part of the building of a sense of shared identity with, in certain cases, the invention or reinvention of a food tradition;
 - Long-established models are gradually eroding, in line with a degree of weakening of shared norms. Although new rules may emerge, they will nevertheless not be as strong as the old ones.

Figure 8 – International tourism by destination region, 1980 to 2030



Source: World Tourism Organization, 2014, *UNWTO Tourism Highlights*

12. Bricas N., Lamine C., Casabianca F., 2013, “Agricultures et alimentations: des relations à repenser?”, *Natures Sciences Sociétés*, no. 21.

13. Figuié M., Bricas N., 2014, “Faire ses courses au Vietnam aujourd’hui: quand les supermarchés touchent aux sens”, *Anthropology of food*, <http://aof.revues.org/7445>.

14. Bricas N. *et al.*, *op cit*.

15. Fumey G., 2007, “La mondialisation de l’alimentation”, *L’information géographique*, 71-2.

16. Rosa H., 2005 (trad. 2013), *Social Acceleration: A New Theory of Modernity*, Columbia University Press.

17. World Tourism Organisation, 2014, *UNWTO Tourism Highlights*, 2014 Edition.

18. Fischler C., 2013, *Les alimentations particulières. Mangerons-nous encore ensemble demain ?*, Odile Jacob.

those radical changes will spread generally to all large conurbations, with globalisation playing a role in their dissemination and acceleration. This is apparent at a number of levels: concomitance in changes at the level of eaters and dissemination of practices, along with the imitation and transposition of foreign lifestyles.

Although the time devoted to food (shopping, preparation, consumption) varies between countries, cultures and individuals, several factors are contributing to its reduction: the global spread of a model for large-scale retail distribution, less time spent in making meals, market offerings of ready-prepared products, the modernisation and global spread of domestic appliances and the development of catering facilities at or near the workplace. Although out-of-home catering is certainly not new, the “ready-to-eat” factor is now central to many innovations, with offerings that have been rethought to match consumers’ evolving expectations. Moreover, in locations where large retail chains are long-established, sometimes contradictory

trends are developing (devaluation of “shopping malls” for the younger generations, the desire to save time, e-purchasing, etc.) that could soon affect the major emerging countries. All these factors will lead to a diversification in modes of supply and differentiation in attitudes to time.

Consumption times and the temporal distribution of food intake during a day vary globally¹⁹. However, a trend towards a fragmentation of food-related time is developing, especially in countries characterised by a synchronism in the times of day devoted to food: the streamlining of meal organisation, increased consumption away from the home, the effects of the secondary character of food intake and a faster pace of life. As the different moments for social interaction increase in number and diversify, opportunities for food intake are more and more varied: the upshot is a differentiation of individual food timetables, and this is likely to involve an expanding number of eaters by 2030.

Individualisation, however, is leading to a reinforcement of food-related specificity, a strong trend for the period to 2030. While this is not new, the adoption of a specific diet (e.g. gluten-free, vegetarian) is now a decision for the individual. It is asserted, demanded by individuals, most especially when meals are shared. These “special diets”²⁰ are very heterogeneous, based on health-related, medical, ethical, political or religious grounds and are associated with communities that may not be bound by geographical frontiers; they are more subject to fashions and are therefore reversible. Changes in market supply and consumption habits

underpin this process of individualisation. Additionally, a return to “fundamentals” is an important concurrent trend in this context: for individuals and social groups, the aim is not so much to restore a tradition as to opt for chosen references. Ancestral practice is then “taken out of its historical and geographical context and exploited for a contemporary project”²¹.

4 – Priorities increasingly widely shared between eaters

At the global level, we are seeing the emergence and consolidation of priorities increasingly widely shared between eaters, especially in the upper layers of the urban middle classes (cf. Box 3). These new priorities attached to food are reflected in a range of ways in individual and collective practices. It is the aggregation of the diversity of these expressions that is driving a mass effect at global level, this being a vector over the period to 2030 for major changes in behaviour, lifestyles and food systems. Worldwide consumption of organic products is example of this.

While food and health are closely linked, the importance of the latter in representations of the former varies from culture to culture²². Nevertheless, various factors favour a wide-ranging global movement for the dietisation of food and this will expand over the period to 2030:

- The individualisation, empowerment and increasing dietary competence of eaters;
- The increasing prevalence of non-communicable food-related diseases accompanied by the development and spread

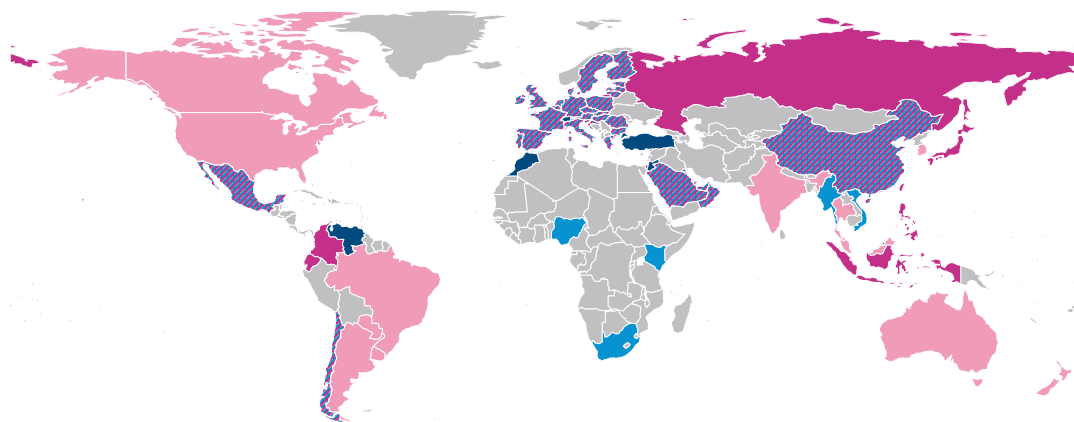
19. Rapid meals and food intake outside mealtimes in North America, Northern Europe, Australia, Central America; organised meals with little or no food intake outside mealtimes in Europe, Russia, South Africa, the eastern half of South America; multiple occasions for food intake not considered to constitute snacking in Africa, Asia, western half of South America (Fumey G., Etchevarria O., 2009, *Atlas mondial des cuisines et gastronomies*, Éditions Autrement).

20. Fischler C., *op cit*.

21. Ascher F., 2005, *Le mangeur hypermoderne*, Odile Jacob.

22. Fischler C., Masson E., 2007, *Manger. Français, Européens et Américains face à l'alimentation*, Odile Jacob.

Figure 9 – Development of voluntary and mandatory nutrition labelling between 2007 and 2014



■ Voluntary labelling in 2007 and 2014 ■ Voluntary labelling in 2007 followed by mandatory labelling in 2014
■ Voluntary labelling in 2014 ■ Mandatory labelling in 2014
■ Mandatory labelling in 2007 and 2014

Voluntary labelling relates to the situation in which the country provides guidelines for voluntary implementation of nutrition labelling.

Source: European Food Information Council, 2015, *Global Update on Nutrition Labelling. Executive Summary*

via international and national institutions of a varied range of tools to encourage individuals to alter their behaviour (e.g. taxes, communication and education, control of product information – cf. Figure 9);

- Advances in scientific knowledge (the links between genes, foods and metabolism, for example) enabling solutions to be proposed to reduce the risks of chronic illness linked to malnutrition and to clarify the influence of individual factors in their occurrence (nutrigenomics).

We may note here the assertion of “anti-hygiene” arguments in opposition to both this trend and the prescription of “healthy” food behaviours²³.

“Local” and “environmental” concepts are additional topics now moving up the agenda: consideration for these in behaviour takes a wide range of forms, and is in some cases in reaction to the real or perceived excesses of globalisation. In response to growing alienation, some consumers are seeking to control their food intake by making purchases that promote ethical, environmental, local, etc. values, or even by assisting the implementation or development of offerings of this kind. Although the interest in food products with known geographical provenance is not recent, for several decades now an attraction has been developing towards local products and food supply channels that bring primary production and consumption closer together physically and/or cognitively. There is a wide diversity of initiatives (fair trade, the *Slow Food International* movement, *Community-Supported Agriculture*²⁴, the

collaborative economy, etc.): while these continue to be concentrated in the most developed countries, it is possible to imagine their spread worldwide, especially in urban areas. However, such positioning of the “local” within the “global” could end up in the formation of just another market segment, losing its dimension critical of globalisation²⁵. Moreover, more and more cities and regions are engaged in building local initiatives and food identities aimed at mobilising and raising the profile of territories or even promoting local democracy.

The nature of the environmental issues surrounding food is diverse and they are increasingly present at global level. For example, the market for “green” food products is expanding rapidly in China: it did not exist at the beginning of the 2000s and is a response to urban demand driven by sanitary requirements²⁶. These concerns are resulting in altered behaviour and a number of schemes are being implemented to encourage individuals to make changes to their practices (product labelling, different production methods, etc.). While this trend is structural in some countries, it is only emerging in others. Even if the global issues surrounding changes in diets and food practices are increasingly openly expressed, this trend could go into reverse or fade over the period to 2030 for a number of different reasons: the importance attached to product pricing, choices between different aspects of quality in these products, competition between labels, among others.

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Globalisation is not a zero-sum phenomenon: it enables contradictory trends to coexist, which, far from being in opposition, may be able to mutually reinforce each other. For example, globalisation leads

both to uniformity and heterogeneity in food behaviours. This means that trends toward the homogenisation or alternatively the dissemination of certain of their components are at work (convergence of the broad balances in food ration, patrimonialisation of certain practices). Once enshrined in local contexts, global dynamics lead to reaction, fusion, differentiation, reaffirmation. What we see therefore is greater diversification, more numerous specific situations, both culinary and food-related (reappropriation of industrial products and food dishes, etc.). Moreover, as we have seen, “Western” trends are not the only trends that spread. The growing fragmentation of the time devoted to food, an emerging trend in France, is a very long-standing characteristic of many countries in the South.

More broadly, the globalisation of food behaviours is interacting with the globalisation of the other components of food systems. Examples of this are to be found in the trade in commodities, the dissemination of agricultural research and crop information, understanding of sanitary and climate-related risks, the roles of actors and changes in these (national governments, NGOs, private enterprises, municipalities, etc.), issues surrounding mandatory standards and certification, and so on. All these points are discussed in the other chapters of *MOND'Alim 2030*.

All in all, what is appearing is a complex set of trends, concurrent trends and counter-trends, all interconnected. What we are seeing therefore is not a single food model but in fact a sharing of specific registers of food behaviours that lead on to individual and collective choices that are more varied than before²⁷. As Sanchez points out in the case of the pizza: “exogenous borrowings, far from affirming an alignment of some on the cultural practices of others, are in many cases the starting point for the emergence of new mixed forms that are more than the sum of their parts”²⁸. This foresight analysis thus allows us to pin down a broad movement for the period to 2030 rather than a uniform snapshot, especially since the period continues to present major areas of uncertainty and opacity: among others, the persistence of quantitative food insecurity, the consequences of the phenomenon of “middle class squeeze” in the United States and Europe²⁹ and possible breakpoints.

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Box 3 – Towards a glocalised eater?

Globalisation arouses in individuals an ambivalence between openness to the world and attachment to the specific characteristics of local areas. Although behaviour patterns are localised in geographical terms, they are also under remote influence³⁰. The upshot is an increasingly “glocalised” eater, one who is both rooted locally and influenced globally. This trend is reinforced by civil society actors with a global standpoint on food and the consumer, as well as by informational and normative systems established at the planetary level. The development of digital tools is one key to the construction of this more demanding, more political eater, with several trends at work: easier expression of individual preferences to a large number of interlocutors, new forms of collective action involving dematerialised vectors, the renewal of collaborative consumption, among others.

23. Ramsey M., 2001, “Mouvements anti-hygiénistes et libéralisme : vers une histoire comparée”, in Bourdelais P. (dir.), *Les hygiénistes : enjeux, modèles et pratiques, XVIIIe - XXe siècles*, Belin, pp. 319-340.

24. This type of initiative first appeared in the mid-1960s in Japan and Germany.

25. Roos G., Terragni L., Torjusen H., 2007, “The local in the global. Creating ethical relations between producers and consumers”, *Anthropology of food*, S2, march.

26. Bonjean A., Schwoob M. H., Ly C., Boinet D., 2014, *Nourrir 1,5 milliard de Chinois en 2030*, De Boeck.

27. Ascher F., *op cit*.

28. Sanchez S., 2008, “Frontières alimentaires et mets transfrontaliers: la pizza, questionnement d'un paradoxe”, *Anthropologie et société*, vol. 32, no. 3.

29. Damon J., 2014, *La classe moyenne américaine en voie d'effritement*, Fondation pour l'innovation politique.

30. Giddens A., 1990, *The Consequences of Modernity*, Stanford University Press.

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