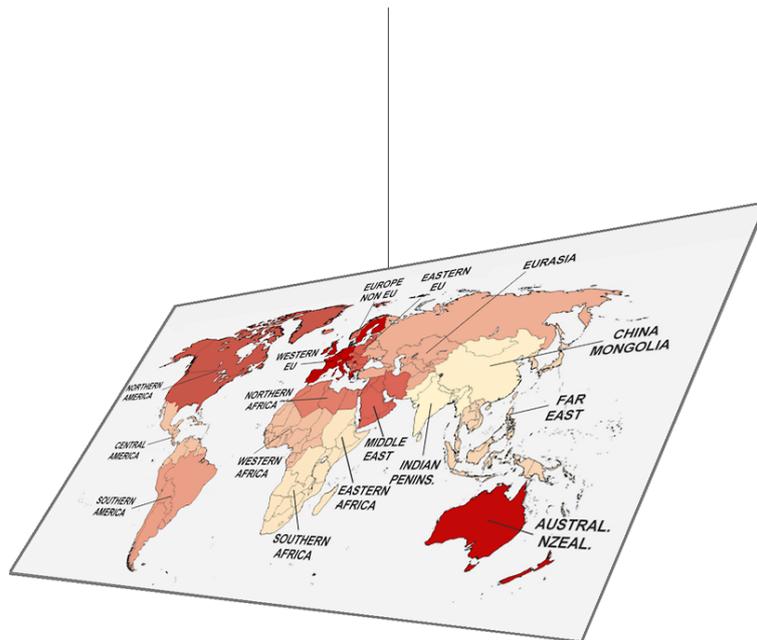


Global Consumption of Tomato Products

2018/2019 Edition



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with funding from WPTC

(January 2020)

Worldwide consumption of tomato products, 11th edition, 2018/2019

A slight return to form in 2018/2019...

In an article published in early January on our Tomato News website, detailing the potential development of the consumption of tomato products in India, we highlighted the difficulties of substituting the products of our industry for raw tomatoes in regions where "fresh" consumption is historically and culturally part of local culinary habits. Even when exceptional increases in prices on the fresh market largely justify the use of tomato products, also promoted by public authorities, and even when nutritional, taste and health qualities are widely recognized and promoted, there remains a strong reluctance on behalf of consumers to recognize the equivalence of these modes of consumption in practical terms and to change ingrained habits.

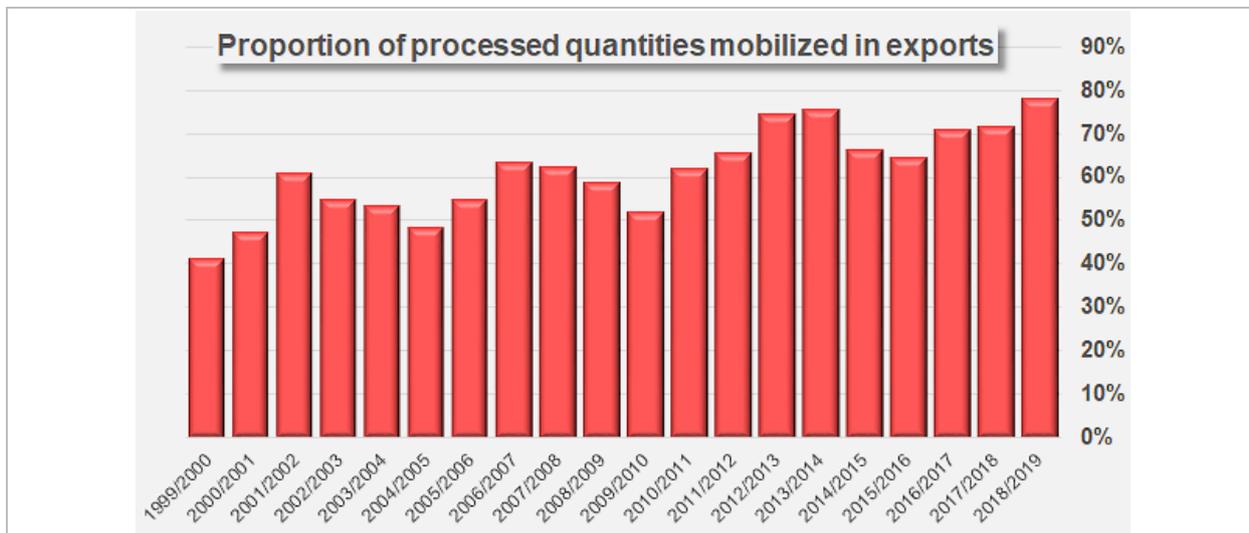
The long-term mission and foundational work undertaken and maintained by many national processing and distribution industries are coming up against the volatility of fashions and are being confronted with apprehensions complacently relayed by the media. The "processing tomato" sector suffers from the imposed prohibition preventing it from effectively and properly capitalizing on health benefits recognized by the scientific community – but not by law-makers – or on the simple natural features of products that have often undergone very little processing. The result is stuttering, hesitant growth, increasingly exposed to the changing concerns of consumers of the new generations X, Y or Z, who are more fond of variety, originality, low environmental impact, freshness and image than of the beneficial antioxidant effects of lycopene...

Today, unlike its cousin the potato, the processing tomato is struggling to gain fans. Paradoxically, according to reports from a number of experts, *"growing demand for processed foods, increasing consumer inclination towards vegetarian food and snacks, an expanding food retail industry along with the improving global potato crop over the years, are key factors contributing to the high CAGR of the processing potato market during the forecast period. [...] According to the current analysis, the global potato processing market was valued at USD 24.83 billion in 2018 and is expected to reach USD 37.41 billion by year 2026, at a CAGR of 5.2%. The global potato-based consumption is going up due to heavy demand from end-consumers across the globe due to the ease of meal preparations with processed potatoes. [...] Potato is considered to be the most favorite food in the diets of various countries. [...] Easy availability and low prices drive the demand for this root vegetable. China, Russia, India, and the U.S. are the largest producers and consumers of potatoes and potato-based products, according to the FAO. Europe is the largest per capita consumer of potato products, followed by Asia, North America and Latin America. [...] Despite the favorable growth scenario, seasonal fluctuations in production in key producing countries, volatility of input prices, and health issues associated with the over-consumption of processed potato foods pose a significant challenge to the growth of this market."*



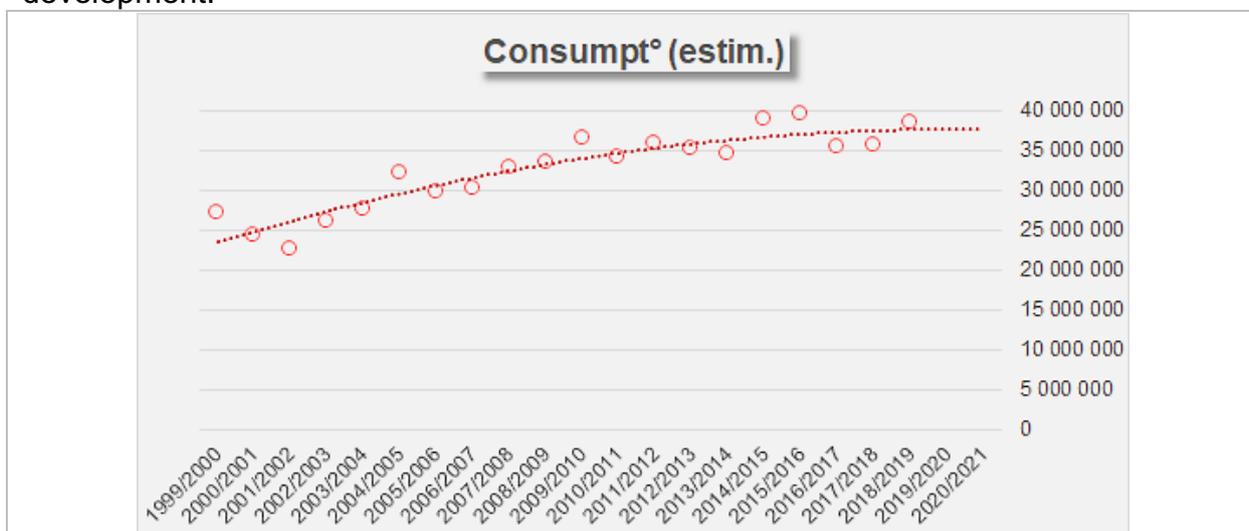
In light of the driving forces of consumption described in this report on potato products, the processed tomato has serious advantages that are likely to broaden its popularity among consumers. Constantly looking to the future after several years of crisis marked by growth that experts have at best described as soft, products of this worldwide industry ended 2018/2019 on a rather encouraging note.

Based on a slight increase in the overall demand for tomato products, expressed in a clear rise in world exports in this sector (see our article on [Trends in the World Paste Trade in 2018/2019](#)), consumption of tomato-based products (expressed in raw tomato equivalent) reportedly increased, according to estimates gathered during the latest study commissioned by the World Processing Tomato Council, by around 4% in 2018/2019 compared to the average level of the three previous marketing years. The intensification of trade, observable in particular in the canned tomatoes sector, but also measurable in that of pastes and sauces, has been accompanied by a greater volume of processed raw materials used in export shipments: over the last full marketing year, supply flows from the major processing regions involved the equivalent of approximately 27.3 million metric tonnes (mT) of raw tomatoes, just over 1% more than the three previous years (26.97 million mT). At the same time, overall exports of tomato products, which for the past four years only absorbed just under 69% of the quantities processed annually, attracted in 2018/2019 the equivalent of 78% of the tonnage processed during the season, which is a sign of a closer match between the sector's activity and worldwide demand, and the indication of an increased use of inventories still stocked in factory warehouses in order to satisfy it.



The combination of the dynamics of world trade with the cyclical dynamics of the quantities absorbed by the processing industry led to an almost regular increase in the quantities available for satisfying global demand until 2011/2012. The disorganization caused by the overproduction of 2009 deeply and durably disrupted the reasoned approach to operations during the seasons that followed, and it seems that the response of the agro-industrial sector to global demand started to stabilize only after the 2016/2017 marketing year. At the same time, annual global carryover stocks have entered a significant phase of decrease only in the past three years or so.

The result of these various concomitant phenomena is a world consumption that is still growing but at an annual rate of progression that has gradually decreased in recent years. Without going into further detail, it will suffice to note that this growth rate (CAGR), which reached 3 to 4% per year over the first twelve years of the millennium, has "fallen" to around 1% – sometimes less – during the last eight years. This growth rate, which governs current progression, corresponds to an average increase of around 360 000 mT (raw tomato equivalent) in overall annual consumption. It is within these parameters of growth that companies competing on the globalized market must acquire the market shares essential for their development.

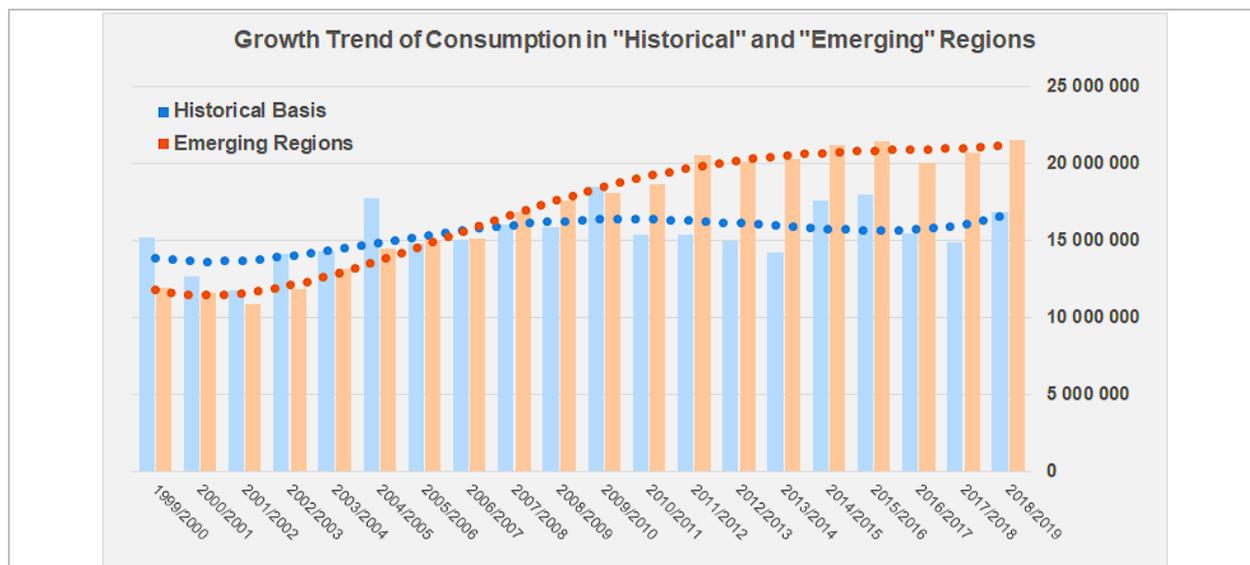


With 38.3 million mT (estimated raw material equivalent) consumed globally in 2018/2019, the last marketing year featured an 8% increase against the previous year (35.5 million mT) and a 4% increase compared to the average of the three previous years (36.8 million mT between 2015/2016 and 2017/2018).

Are emerging markets reaching maturity?

The 2018/2019 marketing year did not bring any decisive changes in the regional components of world consumption. The “historic base” made up of the North American and Western European groups of countries remains by far the main trade outlet for tomato products, although its relative importance in the global landscape continues to decline. In 2018/2019, these two regions together accounted for approximately 44% of world consumption. Twenty years ago, in 1999/2000, the proportion was exactly opposite, the whole of North America-Western EU absorbing 56% of world consumption and the fifteen regions then “emerging” (South America, Eurasia, Far East, etc.) only 44%. In the context of sometimes slow growth that has prevailed over the past twenty years, the rise of emerging regions and their new preeminence highlight a speed of progression that is much higher than in the mature markets of Europe and America.

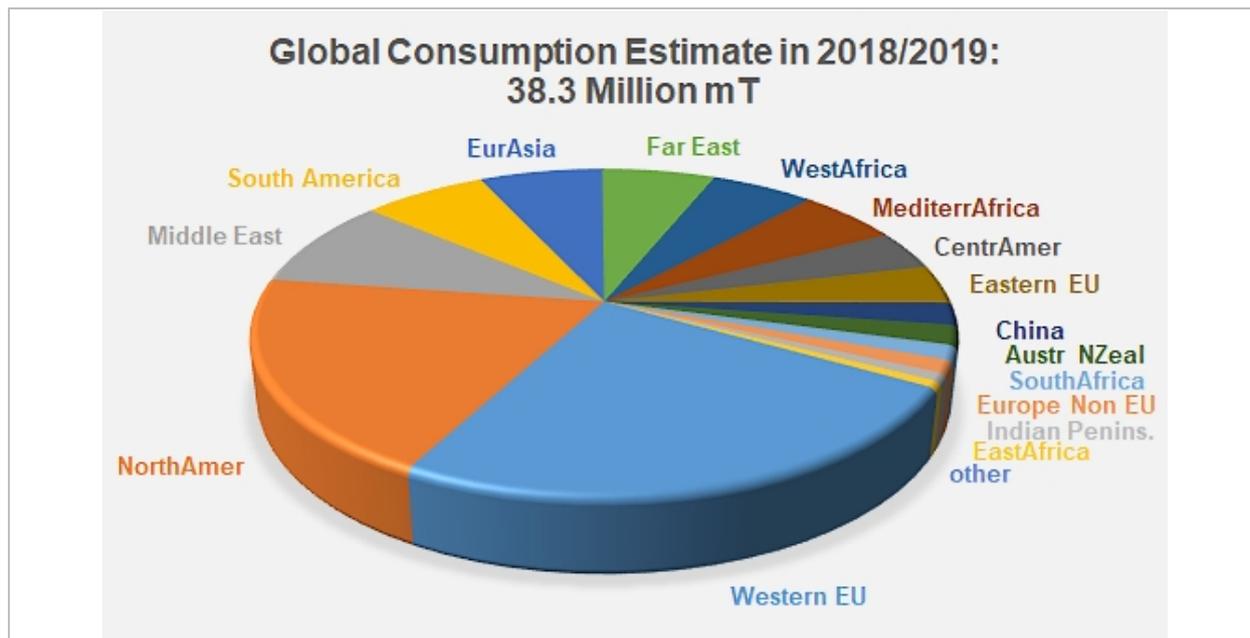
However, we must beware of generalizing a dynamic that has not been homogeneous, either in time or in space. Consumption data collated according to the model used in the WPTC study reveals what is indeed very rapid growth in consumption in the “emerging regions” until 2011/2012, but this date marked the start of an obvious slowdown in consumption dynamics for these regions. At the same time, the developments observed in the mature markets of Europe and North America have not brought any decisive progress at a global level (even if the past marketing year has seen a significant recovery of domestic consumption in the USA and a continuation of the measured progress recorded in Europe). Nonetheless, it is possible to describe the consumption patterns of tomato products for this group of countries as relatively stable.



It can be considered that this slower growth in consumption in emerging regions is a sign that these markets are reaching maturity, whether it is the result of an actual slowdown in consumption or simply the reflection of the newly acquired independence of these regions in terms of supplies from the three major processing zones (Europe, United States and China), or even the expression of a significant autonomy in terms of production and processing.

In the same way, it seems to be a given that the fast growth that drove marketing results at the beginning of the millennium on a worldwide level was carried by increases in tomato product consumption in the Middle East, South America, Eurasia, the Far East, and West Africa, to name only the main areas of growth, and that the slowdown in growth in these same regions, in parallel with a sluggish or

hesitant dynamic in the "historic" regions, may be one of the causes of the slow progress recorded on a global scale in recent years.



Individual consumption and demographic shifts: the drivers of consumption

The slight upturn recorded worldwide has been expressed by a moderate rise in the level of overall individual consumption. During the last marketing year, the average consumer absorbed the equivalent of 5 kg of fresh tomato in processed form, 2% more than on average during the previous three marketing years (4.9 kg/year/pers.), a level that is simply an extension of overall individual consumption over the previous seven years (see appendix). It is therefore necessary to consider the increase in 2018/2019 with a measure of caution, and it should also be noted that this global indication hides significant disparities between the different regions and in terms of progression.

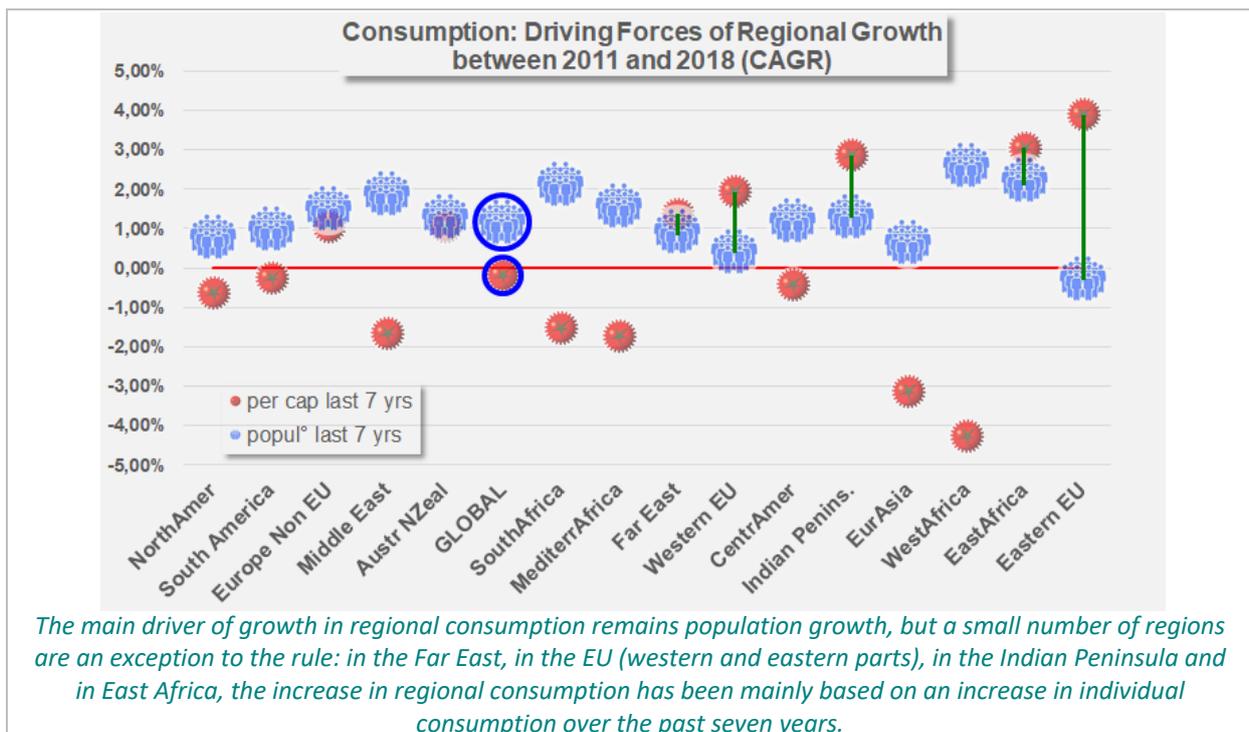
Without going into details that have already been extensively commented on in previous editions, the 2018/2019 study confirms the very high consumption levels recorded once again in the Western European Union (just under 23.0 kg/year/pers.), in Australia-New Zealand (22.0 kg/year/pers.) and in North America (20.0 kg/year/pers.). Consumption in the regions included in the zones described as the "historic base" of the industry remains much higher than in the group made up of central European regions (eastern EU (14.0 kg/year/pers.) and non-Community Europe (12.0 kg/year/pers.)) and the "Mediterranean" (Middle East (13.5 kg/year/pers.), and Mediterranean Africa (11 kg/year/pers.)). As for the other regions, their consumption of tomato products in 2018/2019 did not exceed 8.0 kg/year/pers. (South America) and dwindled to the very low values recorded in the Indian Peninsula (0.2 kg/year/person).

This description of the global situation must be accompanied by contrasting observations in terms of annual development and regional growth drivers. For many of the regions already mentioned among those that drove the rapid growth of the early 2000s, the growth rates determined according to the WPTC study model are actually higher than those of the "historical" group that includes North America and Europe (CAGR 1.36% over the period running 2011/2012 to 2018/2019).

For these emerging regions, the development of consumption has more often been driven by population growth than by an increase in individual consumption, as is

indeed the case on a global scale. The strong growth dynamics of the Far East (2.3%), the Eastern EU (3.6%), Australia-New Zealand (2.4%), non-European Europe (2.6%), the Indian Peninsula (4.2%) and East Africa (5.4%), to name only the most significant, have thus supported an overall development in recent years and even seem to have offset the recorded setbacks in Eurasia and a number of other regions. On this last point, it is important to note that the limits of the study, partly based on trade flows and on declarations of operations, make for difficult interpretation since it is not easy to distinguish on a local scale between a real drop in consumption and a simple slowdown in supply flows.

Ultimately, most of the developments observed can be attributed to population growth, but in certain regions – and not the least important ones, since this seems to be the case in the European Union and the Far East – it is indeed individual consumption and therefore consumer interest in tomato products that supports overall growth.



In short, this is encouraging, and perfectly consistent with the major trends in consumer concerns identified by many experts. Recent studies conducted by Tastewise have shown that "health" aspects now overshadow the environmental concerns of consumers who care about the issue of sustainability.

Tastewise is a food information start-up powered by artificial intelligence. It works by analyzing more than two billion interactions across social media platforms along with more than three million online recipes and a menu database of 274 000 restaurants. It uses this information to identify emerging consumer trends. A lot of the data is from the US exclusively, but is still used by Tastewise to form opinions of global trends. Its latest report discovered that compared to a year ago, 23% more consumers in the US are prioritizing vegan and sustainable diets. And health, not environment or animal welfare, is the biggest driver. While 39% of consumers' conversations regarding sustainability focus on health benefits, only 1% discuss animal rights.

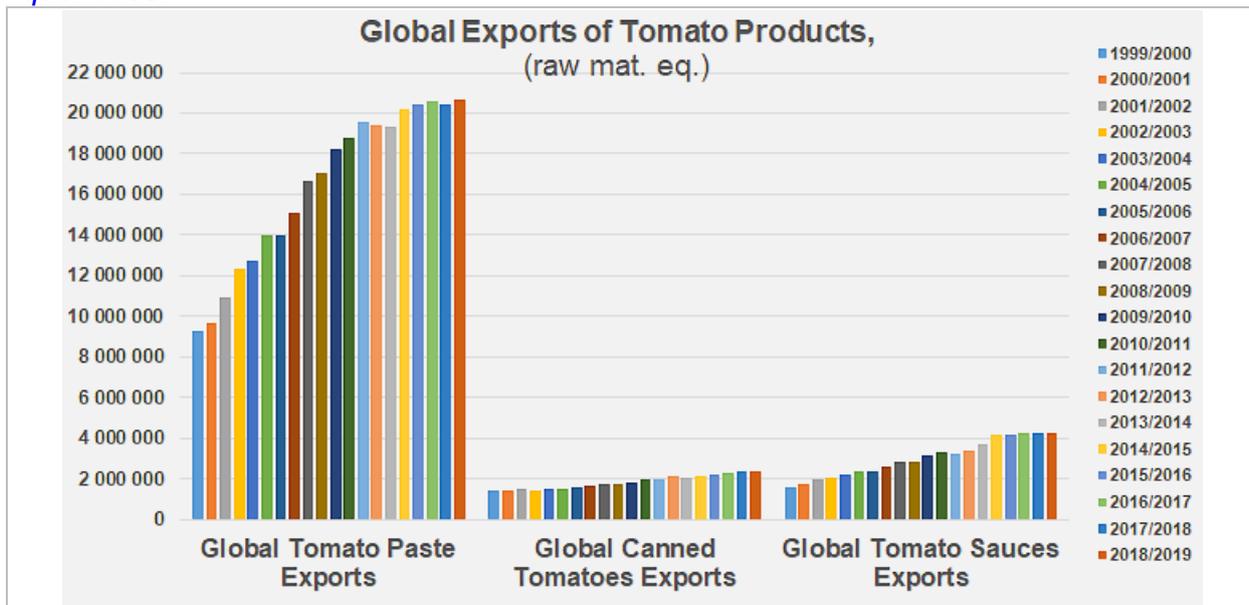
Tastewise CEO Alon Chen, a former Google executive, told FoodNavigator that the "extremely strong correlation with health preferences" identified in the report meant the food industry risks facing a consumer backlash if it doesn't make products that tick both boxes of sustainability and health.

"The conclusion is that we, the food industry, really need to understand that we need to find sustainable solutions, but also make sure they are addressing the health preferences of people."

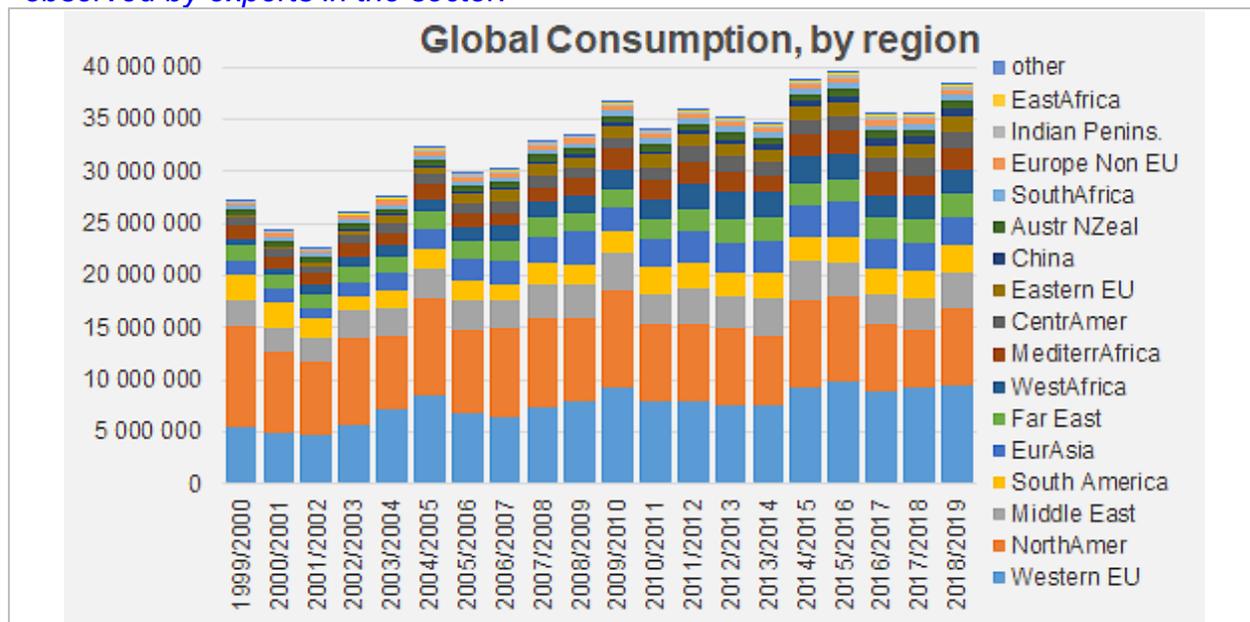
In this area, the global tomato processing industry has clear arguments at its disposal, based on historical experience and scientific evidence. It could not be better positioned to communicate on its environmental assets and its health benefits, and to capitalize on its image to consolidate and expand its performance in terms of consumption.

Some complementary data

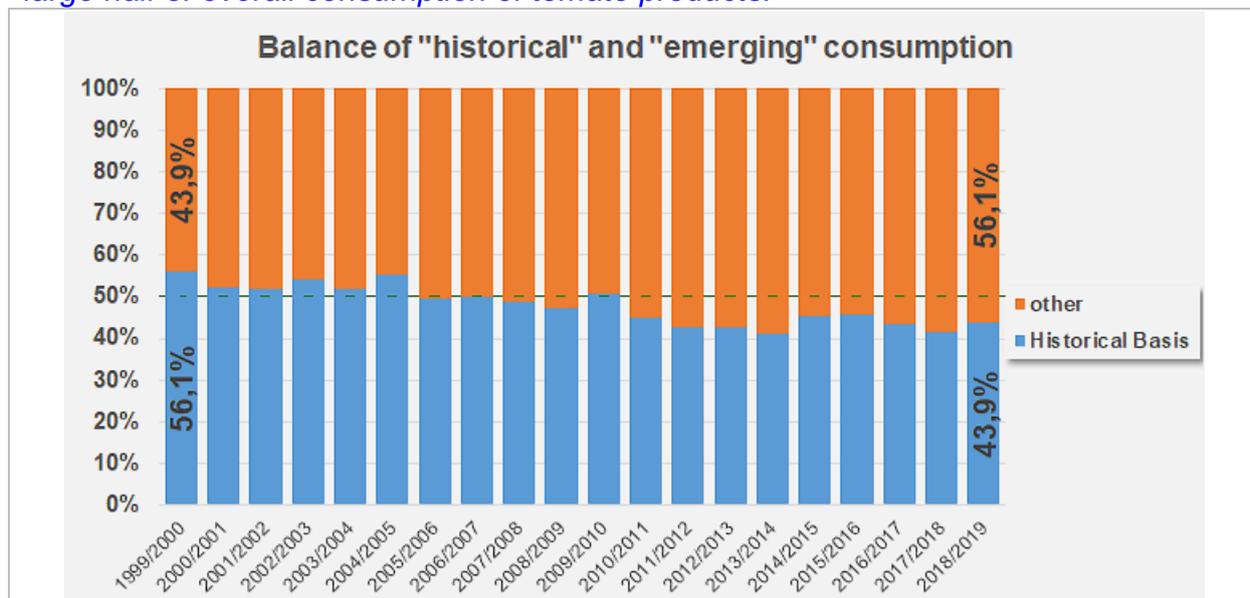
The global trade in tomato products in 2018/2019 indicated a measured increase in quantities.



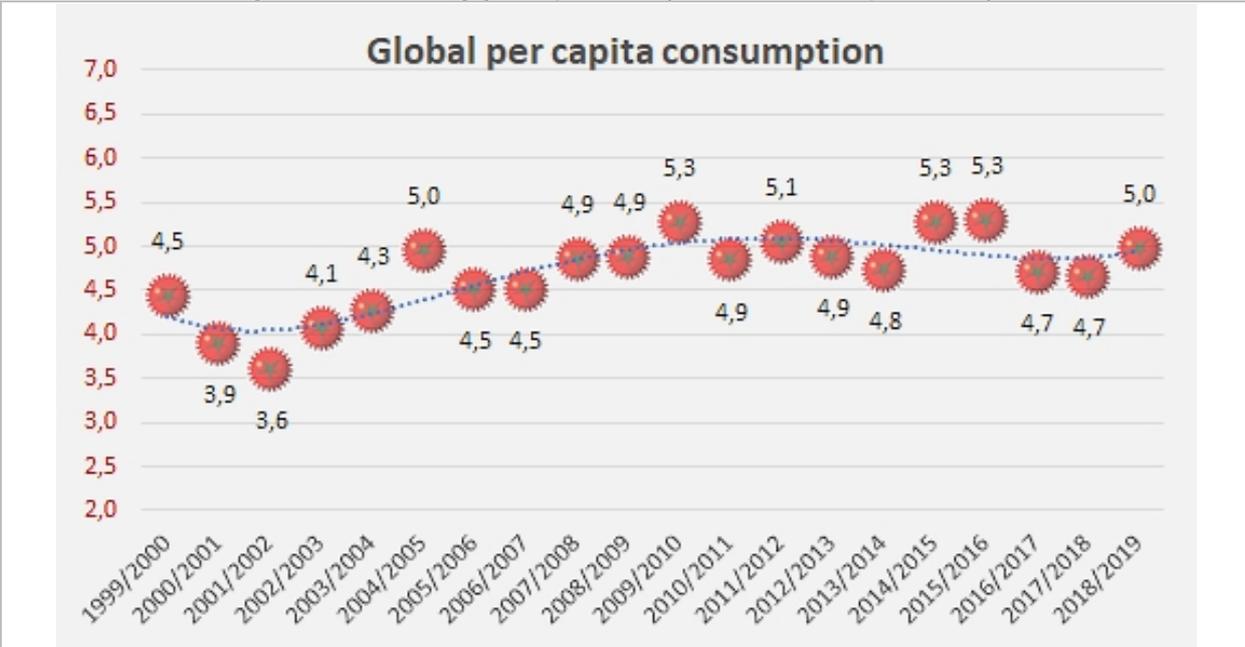
The 2018/2019 marketing year saw a slight recovery of consumption. Annual values and their variations are probably less contrasted than suggested by the model used in the WPTC study, but on the whole, they seem to be representative of the trends observed by experts in the sector.



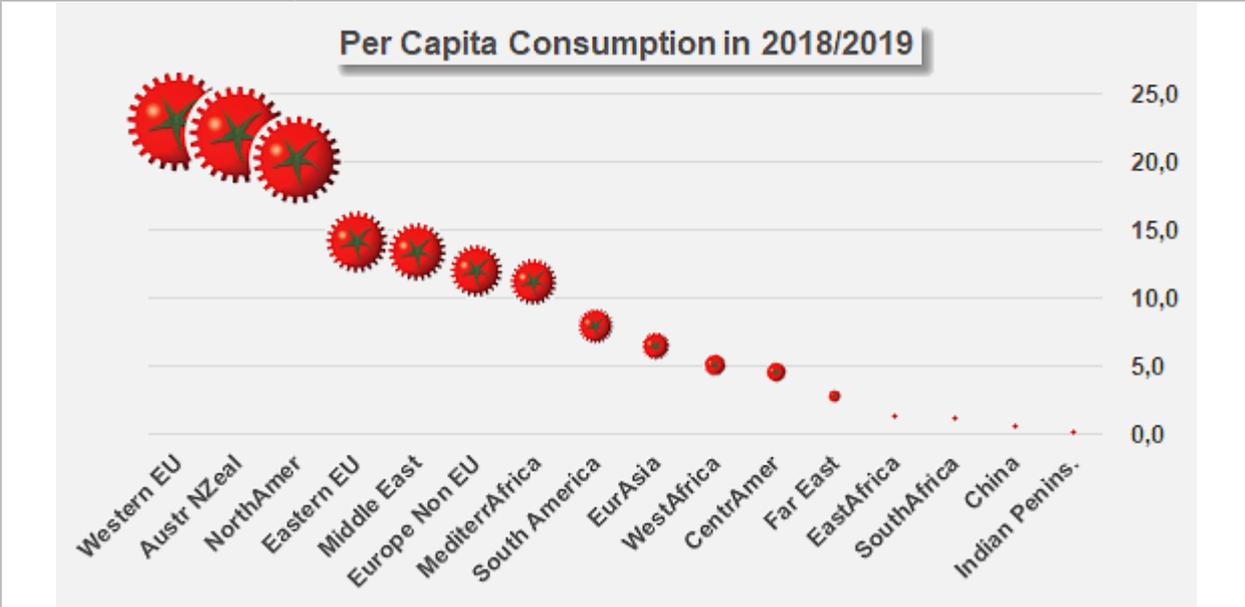
Parallel between consumption trends in the "historic base" regions and in emerging regions: slightly in the minority twenty years ago, the latter now account for a very large half of overall consumption of tomato products.



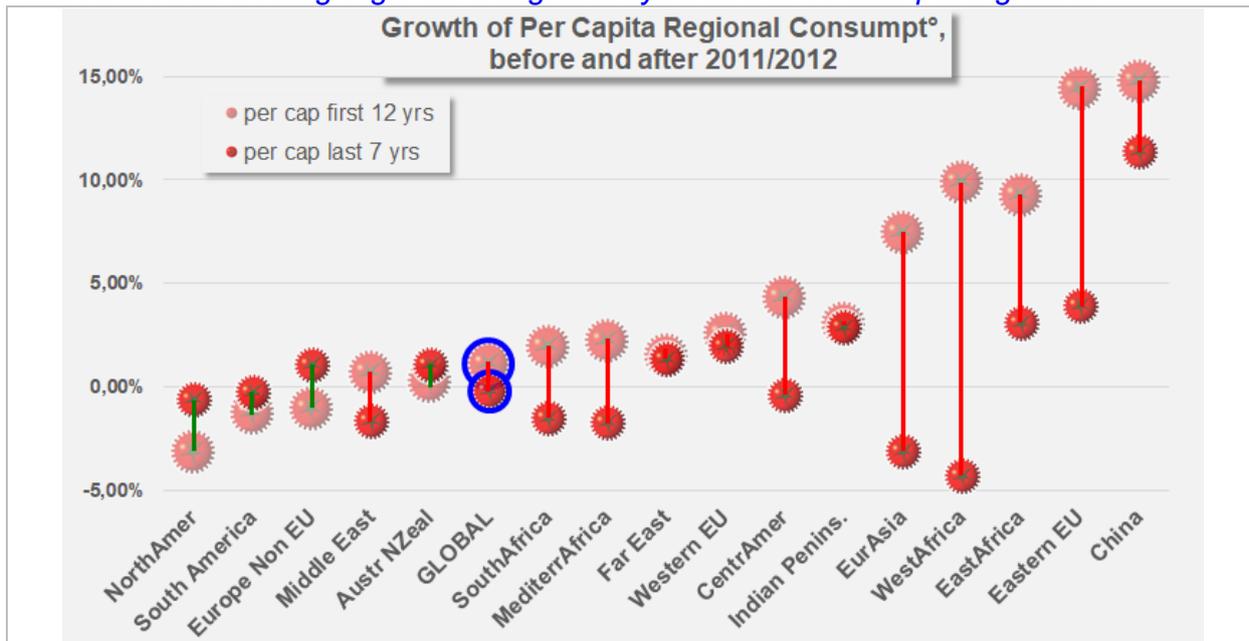
After a decade of rapid growth, overall individual consumption is now evolving irregularly, in a succession of increases and decreases that modify the overall level around an average close to 5 kg/year/person (raw tomato equivalent).



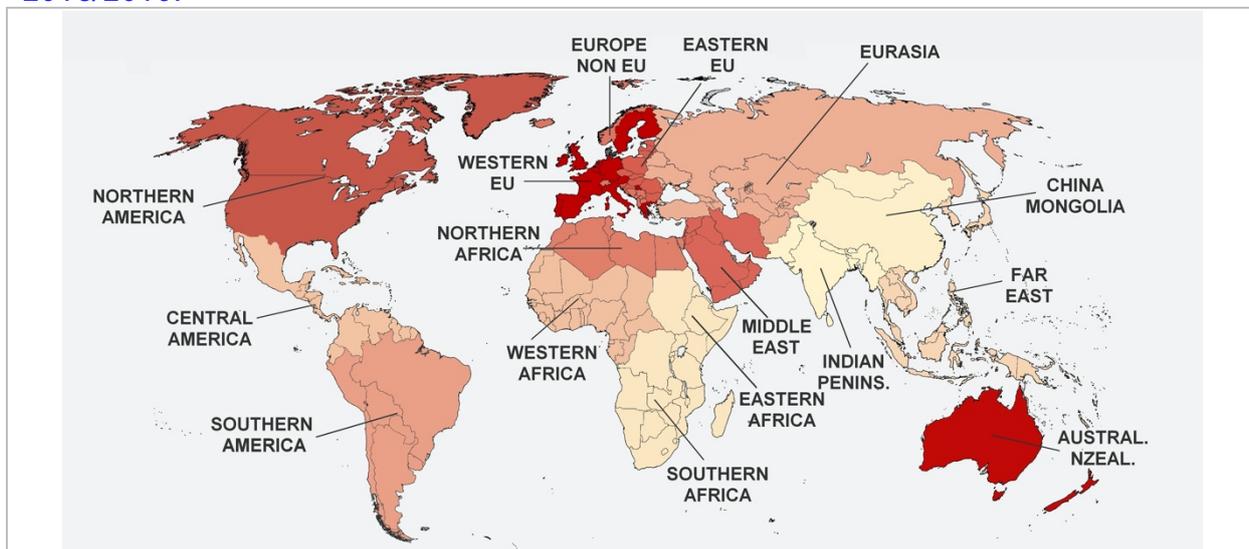
Strong contrasts mark the different regional levels of individual consumption of tomato products, from 20 to 25 kg for the highest values in developed regions down to a value of virtually nil in the Indian Peninsula.



For most of the regions defined in the study, the growth in individual consumption was stronger before 2011/2012 than after. This almost generalized decline has contributed to slowing regional and global dynamics of consumption growth.



The 16 regions studied in the WPTC survey, and their levels of consumption in 2018/2019.



Methodology

Since 2002, *Tomato News*, in collaboration with the WPTC, has carried out a study to analyze the global consumption of processed tomatoes and identify regional trends. Because of the limited availability of some data and of the methodology used, what this study presented was more a reflection of apparent disappearance and demand than of real consumption.

$\text{Consumption} = \text{production} + \text{imports} - \text{exports} (+/- \text{stocks})$

Records for each country include statistical information on imports and exports of each category or subcategory of tomato products (tomato pastes, canned tomato, tomato sauces & ketchup) supplied by Trade Data Monitor (TDM), and, where applicable, national production information (WPTC figures).

For partner countries (i.e. those that figure on the list of destination countries for exports but are not retained by TDM as data-declaring countries), the volumes imported have been pieced together from figures supplied by all exporting countries. Import figures were compiled in the same way, to provide a complete and consolidated list of more than 300 countries importing or exporting tomato products over the past 20 years.

This consolidation produced figures for imports and exports over the period considered that reached a coherence level of 94 to 100% for the three categories.

For each country and each year, the “raw material” or “farm weight” equivalent of shipped quantities was calculated, based on available customs information relating to the soluble solids content levels of traded goods, on processing coefficient data from the WPTC and on information provided by the AMITOM. A separate report (especially designed for tomato paste) gathered together the results of this analysis carried out for the 14 main exporting countries (which account for 94% of the global paste trade) over the past twenty marketing years (from 1999/2000 to 2018/2019). For the canned tomato and sauces & ketchup categories, conversion rates were used according to the origin of the products.

These conversion rates then served to assess the amount of raw material equivalent exported or imported by each of the 300 listed countries, before being assembled according to their regional location.

The trade balance for each country was determined in terms of fresh tomato equivalent (i.e. exports minus imports). For each year, the total “available quantity for consumption” in each category was calculated according to the formula: $\text{Apparent consumption} = \text{initial stock} + \text{production} - \text{trade balance} - \text{final stock}$ (with stock figures assumed to be zero).

The sum of these figures for each country provided the available quantity for each region. For the first time in this 11th edition, a separate compilation of official figures, processed and exported/imported quantities and other available data, was carried out in a trial assessment of regional carryover stocks, allowing a closer approach of regional consumption and, finally, of global level of consumption. These results do not pretend to give a precise picture of the annual reality of consumption; the actual levels and the annual variations are probably less contrasted than the results of this study show, and closer to the trend trajectories that the figures presented allow to identify. However annual values as well as regional and global dynamics can be reasonably considered as representative of the general trend of demand over recent decades.

Apparent individual consumption figures (in kg per capita) have been determined by dividing regional or national consumption figures by population figures supplied by the FAO.

The collated regional figures provide a way to chart the evolution of worldwide consumption for the period of the twenty marketing years considered by the survey. In order to validate the coherence of these results, the values obtained have been compared with annual production figures supplied by the WPTC. In this way, the volumes processed have been used directly in their annual “July-June” form, as have the values for trade and consumption.

In this connection, it is very important to note and understand that the margin of error attributable to lack of knowledge concerning annual changes in national and regional carryover stocks is significant enough to prevent any attempt at issuing, interpreting or commenting national figures. This also explains why results and general trends are influenced by the profile of global processing.

For further details regarding the potato processing market:

<https://www.globenewswire.com/news-release/2019/10/01/1923183/0/en/Potato-Processing-Market-To-Reach-USD-37-41-Billion-By-2026-Reports-And-Data.html>

Sources: WPTC, Trade Data Monitor LLC, FoodNavigator,